



# WHITEPAPER

Global longevity is a decentralized, scalable ecosystem that creates a full spectrum of living conditions for quality longevity. It uses all the latest achievements of world science and works on the IT platform for the personalized management of life span based on blockchain, neural networks and machine learning.

**VERSION 1.1**

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# 1. INTRODUCTION

## 1.1. Idea and vision

Everyone wants to live an active and healthy life and to live as long as possible. The developments in science and new technologies inspire confidence in imminent solutions to the problems of radical prolongation of life, and the prevention and treatment of cancer and cardiovascular diseases. Cell products and gene therapies are already here. They are the present for biomedical science.

Based on the current pace of technological progress, we assume that therapies that will slow the aging process will be created in the coming years. The importance of these therapies cannot be overemphasized, because they will lead to healthspan extension and thus lifespan extension.

On the other hand, there is a huge risk for every single one of us that such therapies will appear too late. It would be the greatest tragedy not to live to see the introduction of lifespan-extension therapy, and we are counting years here. Our goal is to speed up the process.

Global Longevity is a community of people united by a common goal—to find and develop therapies extending youth. Global longevity is a decentralized, scalable ecosystem that creates a full spectrum of living conditions for quality longevity. It uses all the latest achievements of world science and works on the IT platform for the personalized management of life span based on blockchain, neural networks and machine learning.

Our project aims to develop Global Longevity by creating an identically named online platform. On the one hand, it will serve as a personal cabinet with the possibility of obtaining expert advice and allowing one to form a personal strategy to combat aging. On the other hand, it will make it possible for the community itself to conduct clinical trials of antiaging therapies, bypassing the intermediary pharmaceutical corporations.

In order to truly reduce risks of death, one should take every opportunity to participate in clinical trials of life-extension techniques. The organization of and participation in such research is the most rational life strategy.

Thus we develop our life-extension consulting service, which is already necessary and will only gain audience; we develop antiaging therapies and introduce them into clinical practice; we create commercial infrastructure for nonprofit projects to be carried out. Both parts of the system, however, address a common problem—developing medicine to prevent and treat old age. However, we are convinced that the search for only drugs for old age cannot be limited. Global Longevity is the first public project that provides the most comprehensive professional approach to the problem of increasing life expectancy.

The Global Longevity is decentralized, regenerative medical and science project that focuses on preventing diseases related to aging and improving quality of life of the people.



The Global Longevity focuses on innovation methods that can be rapidly translated into patient wellness (diet, physical activity, prevention of diseases, diagnostic, treatment) as well as projects that have long-term goals (pharmacological, regenerative, biotechnology). The professionals at the Global

Longevity study your personal health; and if they identify any signs in your organism which may result in illness, they offer an extensive range of treatments to make you as healthy as you can be.

Every person wants to get the whole range of activities available in the world to extend his life, but does not always have full access to full information on this topic.

Several factors can improve the receipt of such information:

**The total number of mobile phone users** in the world by 2018 is forecasted to exceed 2.5 billion and more than half of all mobile phones will be smartphones that have access to the internet and social networks.

**People already receive medical data from wearable gadgets:** measuring the heart rate and blood pressure, recording electrocardiograms and performing ultrasounds, evaluating body temperature, glucose levels and blood saturation. There are mobile systems for electroencephalography, spirometry, measuring intraocular pressure and analyzing emotional states.

**The synergy of clinical medicine, health science and big data management tools** will allow people to maintain health, live longer and better, delay aging. to cure and prevent most of diseases. Millions of useful articles and books are stored electronically.

All it takes now is broad high-quality access to personalized information; information that answers your questions about health, nutrition, lifestyle, proper medication, preventive intake of dietary supplements, physical activity, vaccination, treatment of diseases, improving life with chronic diseases and more.

**This is impossible without the modern technologies of Artificial Intelligence (A.I.), Machine Learning (M.L.), Natural Language Processing (NLP),** as no patient or medical professional can successfully manage huge amount of medical information including medical research. Artificial Intelligence (A.I.) is used in the management of «smart cities», the financial sector, production, agriculture, energy. The health sector is no exception. Over the next 10 years, a qualitative leap is expected in the development of the information technologies, and their successful application at the different levels of government, insurance companies, hospitals, doctors and individual patients.

**People understand more and more about health issues, they are interested in avoiding illness or finding treatment for themselves and their beloved ones.** Faced with the disease, some of them look for scientific and popular publications on the internet, and try to apply the information they find. Individuals can now become centers for collecting and analyzing health information for themselves and their families. They can make decisions about choosing a doctor, a consultant, the method of diagnosis and treatment, the timing of the beginning and completion of therapy. They can manage their health and their lives.

**Telemedicine** can, in theory, connect patients and doctors, clients and the health care consultants through a worldwide network, quickly, regardless the distance. But if any non-urgent health issue is to be solved by online reception, the next issue is a sufficient number of highly qualified doctors and consultants. Doctors fail all the time even in the best healthcare system to provide the most update and effective treatment options, as they do not have time to follow rapidly growing medical research. The delays in accommodating medical research data into clinical practice can take decades, and it is critical in many conditions like for cancer patients. Medical research knowledge is significantly underutilized, which means that patients are deprived of their changes to live longer and healthier. There are many evidence-based preventive interventions capable to delay pathological processes of aging and prolong healthier lifespan, but they are not getting prescribed to the patients due to inertia in healthcare systems. People often face issues they are uncomfortable to bring to a doctor, like emotional problems,

weight loss and maintenance, psychoactive substance use or questions about sex lives.

While consulting medical professionals is important in many of such cases, access to the most up-to-date scientific information is a lot better than unqualified advice one can find on the internet.

**Blockchain technology** can significantly simplify and secure the work with the health data. Using smartphones and computers, people will be able to effectively manage their health: record personal medical data, take tests and fill out forms and applications, choose doctors, get their conclusions and appointments, ask questions, consult, exchange information, voluntarily provide access to the information to one or another specialist and establish, pay for or evaluate services with cryptocurrencies. And all this can be done safely, anonymously, and efficiently.

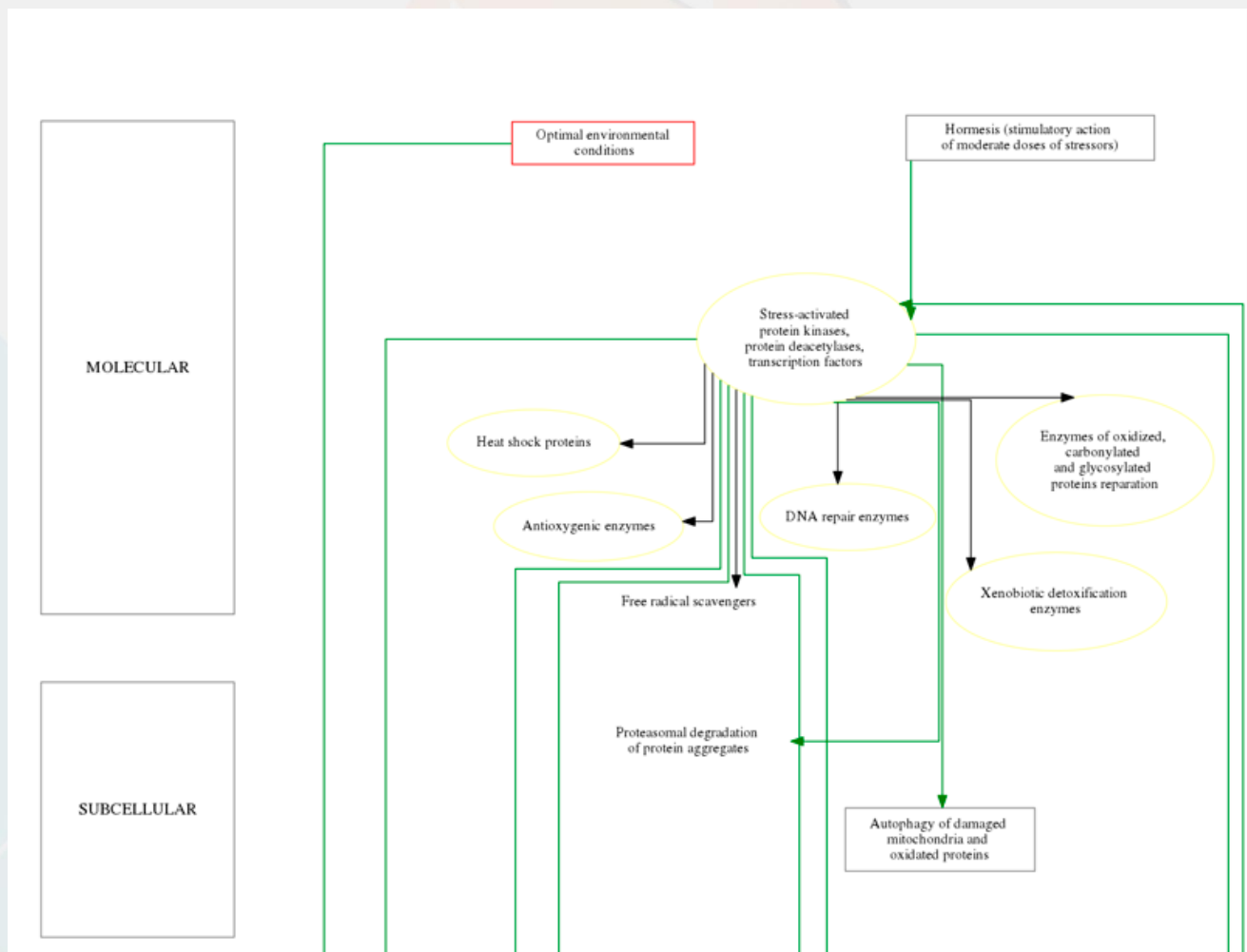
The Global Longevity project will allow everyone to get the most up-to date, relevant and personalized information about their health on the basis of an analysis of individual data, and an extensive library of world medical research literature and considerations of the features of the local health systems.

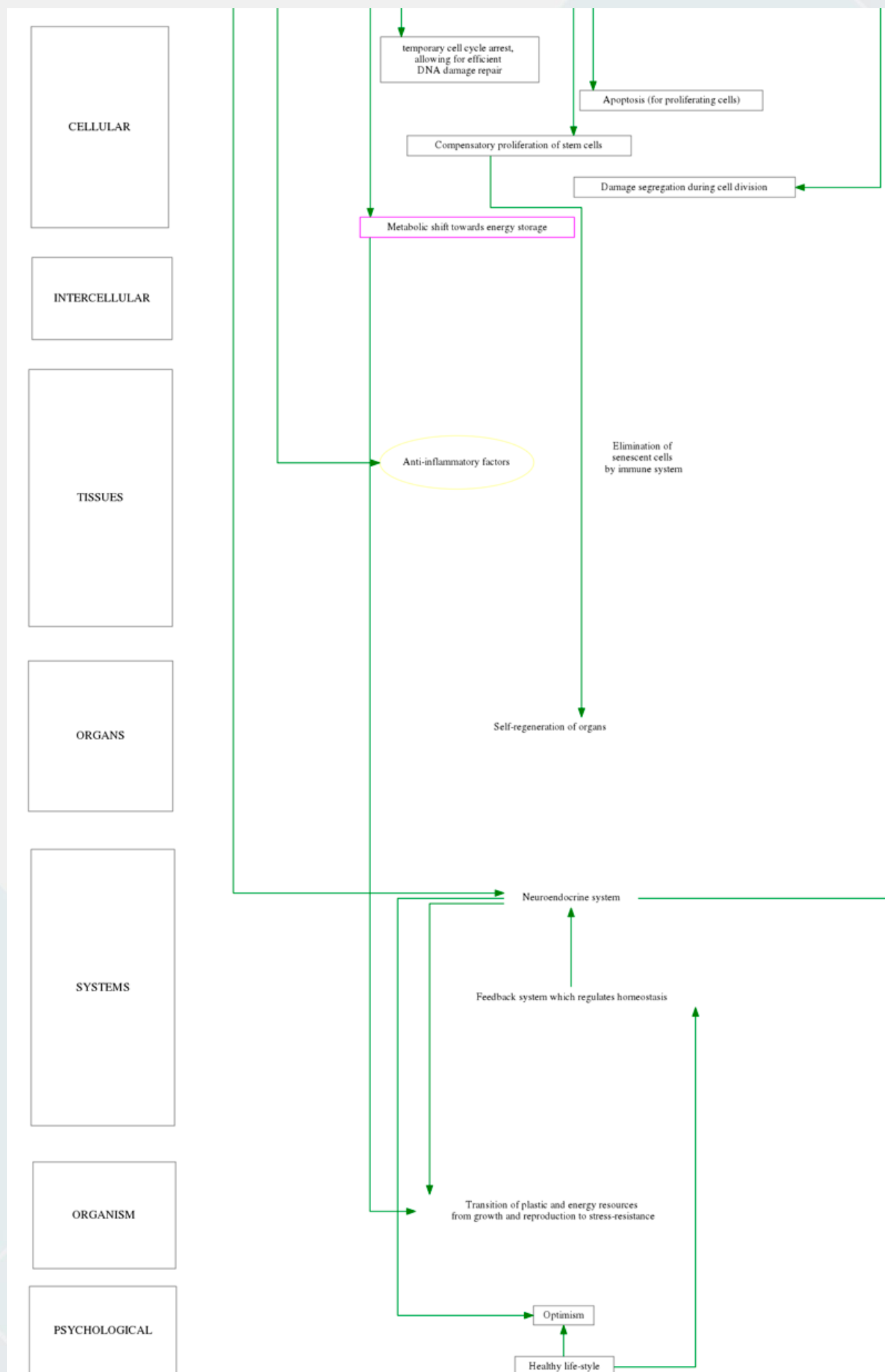
Screening algorithms, individualized diagnoses of the most common diseases and personalized treatment and prevention plans are just a part of what this IT platform will provide to each user.

And for the health professionals, an additional, publicly available solution for automatic analysis of medical publications will be created. The right information on time is a key to health and longevity.

## 1.2. Concept

### BASIS OF LONGEVITY







Global Longevity is the ecosystem, marketplace and community of users, where technologies will be developed in a joint venture with its own IT-platform.

Global Longevity will be focused on developing blockchain and cryptography technologies, marketing, client base development, engaging users and promoting active participation in ecosystem development, and applying multiple ambassadors and evangelists of healthy Longevity.

Global Longevity is the world's first healthy living and longevity platform and technological ecosystem designed and built by experts in the field of healthy Longevity.

Global Longevity utilizes wearable technology to collect user data - such as daily fitness activities, dietary information, general wellbeing, and personal health - and stores it on a platform that uses blockchain technology, putting the user in full control of their data. By combining users personal health records, anonymised and secured on the blockchain, daily fitness data and groundbreaking medical and pharmaceutical research, Global Longevity will be able to make recommendations about diet, medicines, treatments and supplements that can safely help to increase their Longevity.

Global Longevity is an IT-platform to support decision making in the field of health management, longevity, diagnostics, the prevention and treatment of common diseases for non-specialist users, medical specialists and researchers based on blockchain technology, machine learning, natural language analysis, neural networks, big data, clinical epidemiology, evidence-based medicine and telemedicine.

The project is developing and implementing an innovative IT platform for screening and optimal algorithms for maintaining health and diagnosing, treating and preventing various diseases and conditions.

The platform will include a number of the most sensitive and specific, validated questionnaires with highest possible currently diagnostic effectiveness.

A range of the most sensitive diagnostic methods and the most effective medical interventions(taking into account the need to clarify the diagnosis and prescriptions of the attending physician), as well as most evidencebased lifestyle recommendations will be available on the basis of an innovative open medical knowledge platform in the field of aging and robust longevity. The open platform is being developed using A.I., such as Natural Language Processing methods for the ever-growing body of publications in medical science, machine learning, and neural networks. As a result, the IT platform will reduce the obsolescence of medical knowledge.

The open and free part of the platform will be an ontological network replenished using natural language and neural network processing methods semi-automatically (with expert premoderation) with the participation of both project staff and authorized qualified volunteers.

The inference and visualization of search queries in a userfriendly intuitive interface based on the ontology project team has already created will greatly facilitate the search for scientific information, and the synthesis and acquisition of new scientific knowledge. This will be one of the first open systems for the deep processing of scientific medical texts and the first such system in the field of aging and longevity research in the world.

The innovative symbiosis of the full range of living conditions for quality longevity and the IT platform created by him make the project we create unique.

## 2. STATE OF THE INDUSTRY: CURRENT STATE OF PRO-LONGEVITY AND ANTI-AGING THERAPIES

### 2.1. Important Biological Consequences of Aging

The most broadly accepted definition of aging, with regards to animals, including humans, is the progressive loss of cellular and physiologic function over time as a consequence of various forms of damage, that accumulate due to normal metabolism. As a grim consequence, over time your odds of surviving get a little worse with each passing year. The forms of damage that accumulate are myriad, yet they all stem from entropy, the inexorable slip into disorder that all systems undergo. For humans, the typical types of damage that accumulate over time manifest at both the cellular and whole organismal levels<sup>1</sup>.

Within cells, many undergo a process called senescence as they age, resulting in cells ceasing to divide. Unfortunately, these cells that have outlived their usefulness don't just go away. Instead they stick around in tissues, not-dividing and in general being bad neighbors. Cellular senescence leads to the secretion of factors that continuously signal parts of the immune system to provoke a constant level of inflammation.

This phenomenon of senescence was first noticed in tissue culture experiments performed in the early 1960's and was later found to have been caused by a loss of DNA at the ends of chromosomes as cells divided<sup>2</sup>. These ends, called telomeres, act as protective caps at the ends of chromosomes. These degrade over time as most adult cells in the body, referred to as somatic cells, do not express an enzyme, called telomerase, needed to maintain ends<sup>3</sup>. Recent work has correlated shorter than average telomeres with shorter than average lifespan<sup>4</sup>. Intriguingly, it has recently been demonstrated that telomere lengths are malleable, and can be lengthened by activities that promote overall health, such as proper diet and exercise<sup>5</sup>.

Other types of damage that accumulate involve the accumulation of mis-folded proteins, both within and outside of cells. Proteins perform a staggeringly diverse set of functions in cells, from cellular maintenance, cellular structure, signaling, etc. Each protein has a different half-life and needs to be recycled when it becomes damaged. When proteins become too mis-folded they become aggregated, and hence unable to be properly degraded by the cell's recycling systems, the proteasomes and lysosomes. These protein aggregates have been implicated as the causative agents behind age-onset neurological disorders such as Alzheimer's disease<sup>6</sup>.

Not just proteins, but also the organelles within your cells, also need to be recycled when they wear out. This is particularly important in the case of organelles termed mitochondria. These sub-cellular are the power-houses of the cell, constantly churning out energy in the form of the molecule ATP. Unfortunately, they too are not efficiently cleared out over time as we age, leading to cells that are starved for energy<sup>7</sup>.

### 2.2. Evolution of Longevity Maintenance Pathways

Our bodies have an immense number of enzymatic pathways that are constantly integrating a broad array of signals, originating both internally and externally. One vital and very ancient



pathway that lies at the heart of metabolism is the IIS pathway, also referred to as the Insulin and Insulin-Like signaling pathway. One of the very first mutations discovered that significantly extended the lifespan of the microscopic worm *C. elegans*<sup>8</sup>. These evolutionarily very conserved pathways share a number of enzymatic components that are precisely attuned to the metabolic state of an organism. They perform the vital task of signaling to the cell if it is in a state of “feast or famine.” When energy reserves are low, cells are triggered to enter either a more dormant or more energy-conserving phase. Key enzymes that are being researched include the Sirtuin class of histone deacetylases, which modify chromatin and other enzymes, and the TOR proteins, which function to integrate many metabolic signals<sup>9,10</sup>. These proteins, and others, are very important in promoting the lifespan extending and health promoting effects observed in dietary restriction or periodic fasting.

Likewise, all of the forms of damage that have been mentioned in the preceding section have longevity promoting counterparts that have evolved to rid the body of such damage. When proteins become mis-folded, the cell undergoes a process termed autophagy, or “self-eating.” These damaged proteins are shunted to cellular machinery such as proteasomes or lysosome for recycling. Likewise, a similar process, termed mitophagy, occurs for damaged mitochondria. These processes are also triggered by low energy reserves, as when an individual undergoes fasting<sup>11</sup>.

Here is a mathematical riddle. Imagine a male and female couple, each 30 years of age. They meet, marry and eventually have a beautiful and healthy baby girl. How old is the baby? Naturally, you would state that the age of the child is in reference to the moment of birth, so right afterwards she would be 0 years of age. But why is that? Both parents, and thus their cells, are 30 years old, including their sperm and eggs. So why isn't the baby 30 years old as well? An even better question would be, how does that happen, the resetting of the cellular aging clock that enables each and every healthy baby to start at 0 years of age?

Why this happens is obvious from an evolutionary point of view, because if it didn't, our species would rapidly go extinct. So as a species, we have been around for hundreds of thousands of years, even though individually our maximum theoretical lifespan is approximately 125 years. Somehow the germline, the lineage of cells within our bodies that differentiates into sperm and eggs, is essentially “immortal”, whereas our somatic cells, i.e. all the rest of the cells in our bodies, are not.

It was only in the last year however, that scientists have demonstrated for the first time that this barrier can be crossed and that somatic cells have the potential for resetting their clock as well. It should be noted that the clock analogy is just that, an analogy. A better interpretation is that the accumulated damage in somatic cells has been cleared in a manner analogous to what happens in the germline, thus rejuvenating these adult cells.

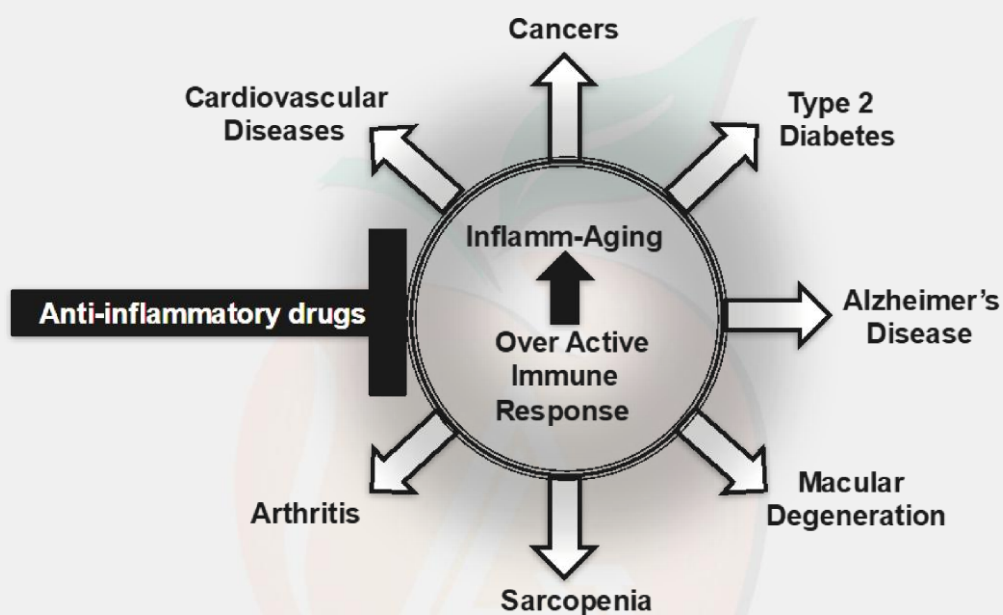
## 2.3. Pro-Longevity research

### 2.3.1. Suppressing Inflamm-Aging

If you accidentally injure yourself, you'll experience the four classic physical signs of your body's defensive response. So well known, they had first been put into print by the famed Roman physician, Cornelius Celsus during the 1<sup>st</sup> century A. D. as “rubor et tumor, cum calore et dolore”, in other words, “redness and swelling with pain and heat.” We now know that this response is primarily due

to the heightened activity of the immune system. This fast or “innate” response to potential infections is a necessary outcome of a healthy immune system.

However, like most activities, too much of a good thing, for too long, is definitely bad. They start to release factors into their surrounding micro-environments that start having a negative effect on healthy cells as well. This aberrant behavior produces what is referred to as SASP or Senescence Associated Secretory Phenotype<sup>12</sup>. This produces a chronic inflammatory response throughout the body that interferes with normal homeostasis. This abnormal level of inflammation has been termed Inflamm-Aging, and is believed to be the root cause of many age onset diseases<sup>13</sup>. Fortunately, there are drugs and molecules being researched that can suppress this aberrant inflammation. These include the nonsteroidal anti-inflammatory drug (NSAID) classes of drugs, such as ibuprofen, plant compounds found in foods, such as curcumin and newly engineered proteins that target inflammatory signals (see Figure 3.6-1).



**Figure 3.6-1. Suppressing chronic inflammation directly may inhibit the progression of many aging related diseases.**

### 2.3.2 Metabolic Optimization

All this work supported the emerging scientific consensus that signaling pathways that are attuned to the metabolic status of an organism are critical in maintaining optimal longevity. Arising from earlier research on dietary restriction, later research has focused on dietary restriction mimetic compounds, drugs that could mimic this state at the cellular level. One such drug, and its later derivatives, is resveratrol, a plant polyphenol found in fruits and red wine in particular. Recent research has demonstrated that many polyphenolic compounds can bind and activate Sirtuin class enzymes, thus boosting their health promoting effects<sup>14</sup>.

Additional small molecules that work upstream of Sirtuins, such as the ubiquitously important metabolite NAD, have also been demonstrated to boost health when internal levels are increased. Conversely, it has been shown that dietary restriction has an inhibitory effect on TOR enzymes. Molecules that inhibit TOR are currently being researched. Indeed, TOR (Target of Rapamycin) itself is named after one of the first molecules discovered to inhibit its activity<sup>15</sup>. Research into

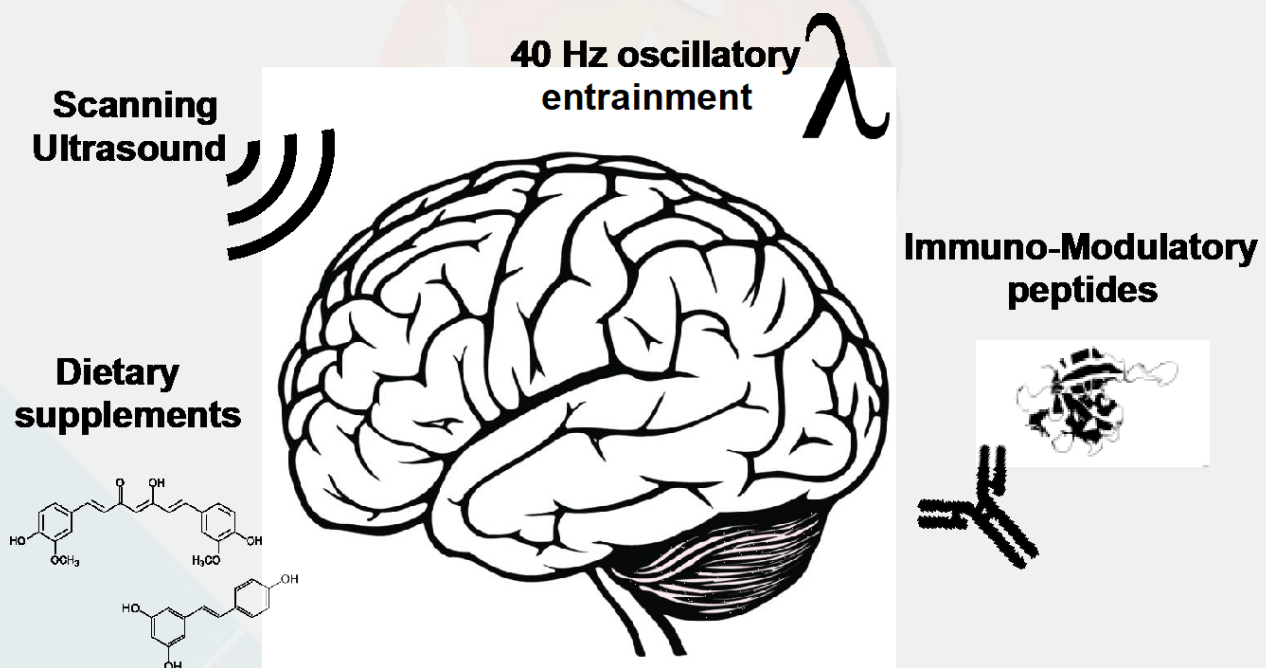
supplements that optimize our metabolic states is already generating candidate molecules that are now on the market.

### 2.3.3. Neural Health and Reversing Dementia

The vast majority of us are endowed with what is perhaps the most complex physical device in the known universe, namely our human brain. Recent estimates give the number of neurons in the adult brain as being on the order of approximately 120 billion. An even higher number of cells in the brain, known as glial cells, perform a large array of critical support and maintenance tasks that are absolutely essential to the overall health of neurons. One critical function that glial cells perform is clearing out damage.

Experimental evidence strongly implicates the accumulation of mis-folded proteins as the causative agents leading to Alzheimer's disease. Within the brain they accumulate as toxic aggregates termed beta-amyloid plaques, found outside of neurons, and neurofibrillary tangles, found inside of neurons. Most excitingly, recent experiments however have challenged the notion that diseases leading to dementias, such as Alzheimer's Disease, are irreversible.

Experiments performed on mouse models that exhibit an Alzheimer's like disease progression, have demonstrated several methods that have significantly reversed cognitive decline, along with a clearance of beta-amyloid plaques (see Figure 3.6-2). What is even more promising is that these potential treatments have very few, if any, side effects.



**Figure 3.6-2. Recent experimental breakthroughs in the potential reversal of Alzheimer's Disease.**

Recent research in mouse models of Alzheimer's Disease has demonstrated that protein aggregates are cleared much more efficiently by glial cells when the brain is entrained using gamma frequencies, that is, frequencies of stimuli that oscillate at 40 Hz<sup>16</sup>. The approach used was that of flickering LED lights set to oscillate at the frequency. This led to the entrainment of the optical cortex of mice to match this frequency. These gamma oscillations are present during our dream state. Interestingly, they are also most evident during meditation, which has also been shown to

have beneficial cognitive effects.

Another approach has been the utilization of scanning ultra-sound<sup>17</sup>. This technique is also non-invasive and non-damaging to the patient. Tested in mice, application of ultrasound was demonstrated to promote protein aggregate clearance by glial cells as well.

Immuno-modulatory proteins, such as Anti-TNF-alpha antibodies, have also been shown to reduce inflamm-aging and thus act as a potential treatment for Alzheimer's disease<sup>18</sup>. Other small proteins that stimulate immune cells, such as IL-33, have been shown to induce macrophages to ingest and remove amyloid plaques when injected into mice<sup>19</sup>.

Lastly, the introduction of supplements that have anti-inflammatory properties, such as curcumin, found in turmeric and resveratrol and other plant polyphenols, such as found in red wine, also have been shown to have beneficial cognitive effects.

#### 2.3.4. Combination Therapies: A One-Two Punch Against Aging

If the current models of aging are correct, that is to say, aging is a multi-faceted breakdown of cells, tissues and organs due to the accumulation of varied damage, then therapies that target multiple, and distinct, points of damage should offer the greatest likelihood of success in treating aging.

There is precedent in combination therapies have greater success than individual therapies alone. Among anti-cancer and anti-viral therapies, combination approaches that target multiple distinct weaknesses within tumor cells or the invading virus have demonstrated significantly greater success.

There are few clinical trial examples of combination therapies being directed towards diseases of aging. However, the few that have been published have demonstrated significant reversal of memory loss in dementia patients.

Indeed, pursuing a healthy lifestyle, as recommended by all physicians, may already be considered a "combination therapy" of sorts. This includes moderate exercise, a diet rich in leafy green vegetables, adequate sleep, etc.

The most promising use of a combination approach has been seen in a series of recent medical trials that have reversed cognitive decline in patients suffering from dementias<sup>20</sup>. This approach used a broad combination of supplements, such as vitamin D3, CoQ10, methylcobalamin, melatonin/DHA/EPA; anti-inflammatories such as curcumin; Sirtuin activators, such as resveratrol, and others. Other lifestyle modifications were also incorporated into this approach such as proper amounts of exercise and a low glycemic diet.

#### 2.3.5. Regenerative Medicine and Aging Reversal

Senolytics are a new class of drugs that have been shown to work by targeting senescent cells for clearance. One method of clearance is to have senescent cells undergo a form of cellular suicide termed apoptosis. The key here is to only target these cells while sparing healthy cells. One current method of detecting senescent cells is to detect the expression of a gene encoding the protein p16. This protein prevents cells from switching on apoptosis, thus allowing senescent cells to linger in the body. By targeting p16 positive cells, healthy cells can be spared while targeting senescent cells<sup>21</sup>.



Another approach is to target additional proteins involved in preventing apoptosis in senescent cells. The protein FOXO4 also plays an anti-apoptotic role. By knocking out it's function, senescent cell clearance, along with concomitant health benefits, has been observed in mice<sup>22</sup>.

Once damaged cells are cleared, tissues can be in a healthier state that can more readily accept new cells. Recent developments in induced pluripotent stem cells (iPSCs) have identified a crucial set of factors, Oct3/4, Sox2, Klf4, and c-Myc, the so-called "Yamanaka Factors" that can induce differentiated adult cells, such as skin cells, to be transformed into potentially any other cell type<sup>23</sup>. This cellular reprogramming has also been shown to rejuvenate cells *in situ* when demonstrated using specially engineered mice. By switching these factors on temporarily, multiple tissue rejuvenation has been seen<sup>24</sup>.

A potential extension of the proposed approach of stem cell replacement would be the enhancement of autologous stem cells through the use of gene editing technologies. Present research has identified several gene polymorphisms that correlate with healthy centenarians. One such approach could involve the modification of a patient's own stem cells to replicate the beneficial alleles found in healthy centenarians, thus not only reintroducing younger stem cells, but younger stem cells that will remain healthier longer. The most obvious current candidate for carrying out such genetic modifications is the CRISPR/Cas9 programmable endonuclease system<sup>25</sup>. This enzymatic system has been spectacularly successful in precisely cutting specific sites within genomic DNA from a wide array of organisms, from microbes, plants to humans. When matched with genomic sequencing efforts that are identifying gene variants found in healthy super-centenarians, this technology may be utilized to enhance the genomes of the rest of us. See Figure 3.6-3.

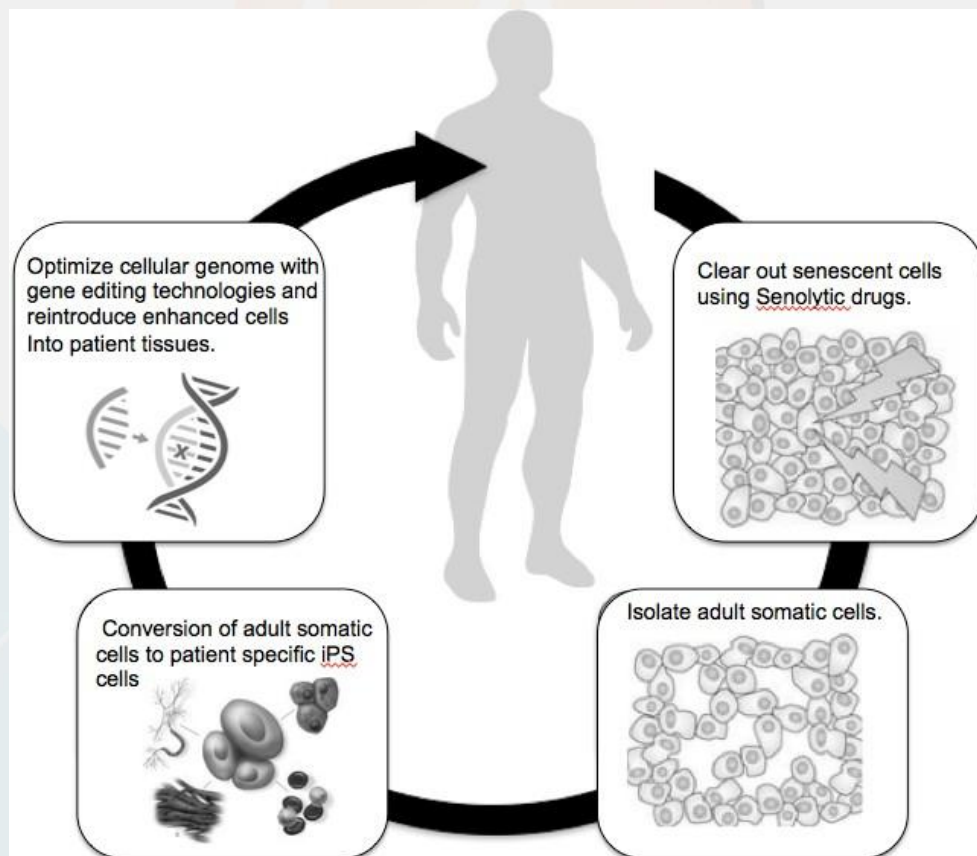


Figure 2. A potential future approach to whole body rejuvenation.

## 2.4. Pro-Longevity Biotech

Each of the companies listed below has decided to focus on therapeutics that specifically target the different forms damage that are root causes of aging in either the broad sense or focus on particular manifestations of aging related damage. The completed trials refer to the therapeutic that is most advanced within a pipeline for a particular company. This list is current as of this writing.

There are additional companies not listed here that are not focused on a particular therapeutic, per se, but instead employ varied Artificial Intelligence based computational platforms to search for a wide variety of drug candidates, especially those directed towards aging. Some of these companies also use a computational approach towards tailoring specific health plans based on patient's specific genomic sequence data. These companies include Insilico Medicine, Human Longevity, Inc. and perhaps Calico Life Sciences (see Table 3.6-1).

**Table 3.6-1. Anti-aging Biotechnology Companies.**

| Company                                  | Therapeutic(s)  | Mechanism of Action                                     | Indication(s)   | Trial(s) Completed |
|--|---|---|---|--------------------|
| Elysium Health (Founded 2014)            | Pterostilbene, Nicotinamide Riboside  | DR mimetic, Anti-Inflammatory Sirtuin activation        | Broad Anti-aging  | Phase 1            |
| Oisin Biotechnologies (Founded 2014)     | Proprietary gene delivery and expression targeting p16 positive senescent cells | Senolytic; senescent cell clearance                     | Broad anti-aging; tissue rejuvenation                   | Preclinical        |
| Amazentis (Founded 2007)                 | Urolithin A; pomegranate fruit derivative                                       | Increased Mitophagy                                     | Broad anti-aging; cellular rejuvenation                 | Phase 1a/1b        |
| Unity Biotechnology (Founded 2011)       |   | Senolytic; senescent cell clearance                     | Broad anti-aging; tissue rejuvenation                   | Preclinical        |
| Frequency Therapeutics (Founded 2015)    | Small molecule combinations   | HDAC inhibitors, Wnt inhibitors, Notch activators, GSK3 | Chronic hearing loss; tissue rejuvenation               | Preclinical        |
| Nuritas (Founded 2012)                   | A.I. based drug discovery platform, Bioactive Peptides from food sources        | varied  | Broad anti-aging  | Preclinical        |
| Mount Tam Biotechnologies (Founded 2011) | Rapamycin-like molecules (Rapalogs)   | mTORC1 inhibition                                       | Broad anti-aging  | Preclinical        |
| BioTime (Founded 1990)                   | varied  | varied  | Age-related macular degeneration; Degenerative diseases | Phase 2            |





|   |   |  |   |             |
|---|---|--|---|-------------|
| Samumed<br>(Founded 2007)                 | Small molecules                               | Wnt pathway<br>inhibition or<br>activation | Osteoarthritis,<br>Androgenic<br>Alopecia (hair loss),<br>other degenerative<br>diseases. | Phase 2     |
| Prana<br>Biotechnology<br>(Founded 1997)  | Metal-Protein<br>Attenuating<br>Compounds     | Protein aggregate<br>inhibition            | Neurodegenerative<br>diseases;<br>Alzheimer's,<br>Huntington and<br>Parkinson's Diseases  | Phase 2     |
| Cognito<br>Therapeutics<br>(Founded 2016) | Gamma frequency<br>entrainment using<br>light | Protein aggregate<br>clearance             | Alzheimer's Disease   | Preclinical |

## 2.5. Anti-Aging Clinical Trials

One of the key challenges in clinically testing and getting to market new generations of drugs that are designed to target the fundamental process of aging is the medical definition of aging itself. Presently, drugs are tested with regard to their efficacy against diseases. Medically a disease is defined as a health problem that afflicts a certain proportion of people, but not everyone. In this schema drugs can be developed, tested and marketed that target individual ailments that correlate with aging, such as dementia, cancers, heart disease, etc. but not aging itself. This paradigm is now being challenged through a novel study initiated by Dr. Nir Barzilai of Albert Einstein School of Medicine and approved by the FDA. For the first time a drug study in the United States, termed TAME (Targeting Aging with Metformin) is going forward with multiple endpoints that correlate with the normal aging process<sup>26</sup>.

The drug chosen for this first pioneering study, specifically targeting aging, is metformin. Metformin has been approved and in use for decades as a treatment for type 2 Diabetes<sup>27</sup>. It has an excellent safety profile and millions of individuals have taken this drug over the years. Surprisingly, epidemiologic data suggested that patients taking this drug for type 2 diabetes outlived their normal cohorts. If a drug is finally approved by the FDA to be marketed as an anti-aging drug, metformin would be the prime candidate.

Global Longevity will provide to each user on-time access to the high-quality up-to-date information about anti-aging medicines, medical devices and dietary supplements.

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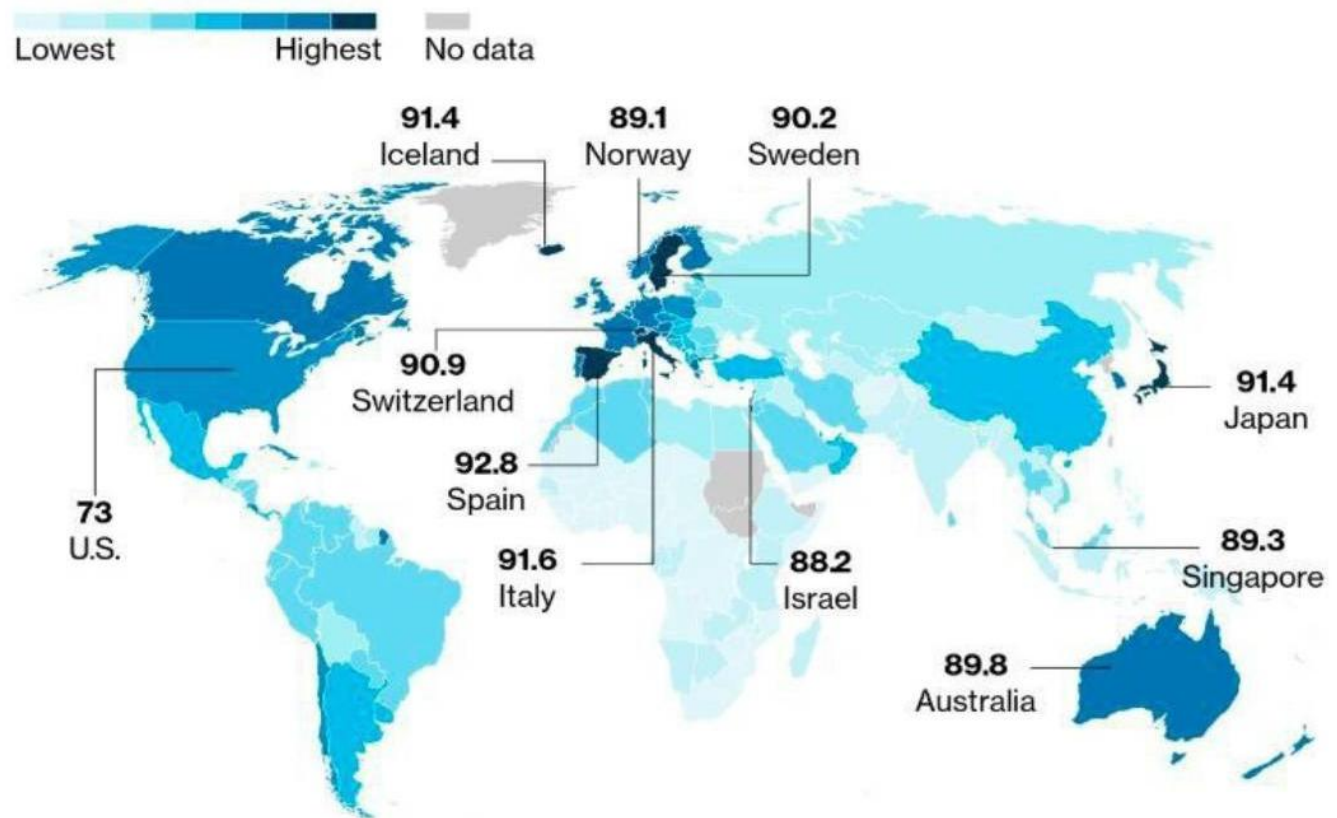
### 3. JUSTIFICATION OF PROJECT LOCATION SELECTION

Global Longevity is a decentralized, scalable ecosystem that creates a full spectrum of living conditions for quality longevity. One of the most important issues of our project is a geolocation choice, which will fully meet the criteria of Global Longevity. Through the Bloomberg study, we know well in which countries the largest number of healthy people live.



## Healthiest Countries in the World

Bloomberg Global Health Index scores for 169 countries



Sources: Bloomberg analysis of World Health Organization data; United Nations Population Division and the World Bank  
Note: Map annotations are for top 10 plus the U.S.

**Bloomberg**

But when choosing a location for a pilot project, we primarily focused on regions of various countries with a high level of ecology and selected 10 of such regions for different projects in different parts of the world for our project. For the pilot project we chose the region of Adjara in Georgia.

Why in Georgia? Perfect ecology, fresh air and widespread gardening provides an opportunity for exercise, nutritious food and sunlight. The Georgians people have a positive outlook on life and close social support groups. They walk a lot, but they also take time for leisure, and maintain a positive attitude and sense of humor about life. They sleep 8 hours and their diet includes not only nutrient-rich foods like berries, vegetables and greens, but also water that's naturally high in calcium and magnesium.

Georgia is among the 20 most profitable countries in the world according to the rating of the American financial portal GOBankingRates (GBR). According to a study published in March 2018, Georgia ranked 16th in this list.

The study compared 115 countries on five indicators: the purchasing power index of the population, the cost of renting real estate, food prices, goods and services, as well as the price index in restaurants and bars. All figures were compared with those in New York.

"With its wine-growing region, sandy beaches along the Black Sea and the cost of living is 70% cheaper than New York, Georgia is one of the most beautiful and inexpensive countries to live in," says the GBR rating.

The authors of the study note that housing rent in Georgia is 90% cheaper than in New York, and food prices are 30% less.



“Add to this a little wine - for only \$ 4 per bottle,” they add to the GBR.

The Minister of Finance of Georgia met with the economist of the World Bank's Regional Office for Europe and Central Asia, Hans Timmer. The meeting discussed the development of innovative technologies in the public sector.

According to the press service of the Ministry of Finance, Georgia is considered as a successful example of the introduction of blockchain technologies. The meeting discussed the role of the World Bank, and international financial organizations in general, in the direction of promoting such systems.

The parties agreed that consultations in this area are needed and cooperation should continue in the future.

According to a Gallup study, Georgia ranks 17th in the list of safe countries. The study “World law and order of the world - 2018” was conducted in 142 countries of the world, and its purpose is to determine the index of law and order in countries.

Airbnb offers travelers the best routes in 2019. Batumi, the capital of Adjara, has also reached the number of 19 cities. An online platform that offers travelers a residential rental service, writes that compared to previous years, the popularity of the coastal city has increased by 200%.

“This is the second largest city in Georgia, which is becoming increasingly popular due to its location on the coast and its temperate climate all year round. This is a Black Sea resort and a port city with a population of 160,000 people, with a seaside boulevard and old buildings that are busy in the evening hours. The region combines beaches and a ski resort, - noted in an article on Airbnb.

The list also includes such places as Caicura in New Zealand, Puebla in Mexico, Normandy in France, Andalusia in Spain, Santa Catarina in Brazil, Buenos Aires in Argentina, etc.

The European Sports Capitals and Cities Federation (ACES Europe) in Brussels officially granted Batumi the status of a European sports city. The award ceremony took place in the European Parliament.

It was decided to assign this title to Batumi this summer. Then Adzharia, on the basis of a request from the city mayor's office, was visited by a special commission of the organization, which was led by the President of the Federation of Sports of European Capitals and Cities of Europe (ACES Europe) Gian Francesco Lupatelli. She examined the sports facilities in Batumi and assessed the situation on the spot.

As a result, according to ACES Europe, Batumi is a good example in terms of sports, education and health, which is the main goal of ACES Europe: sports policy and infrastructure, programs and activities are exemplary. It is with these criteria in mind that Batumi received the status of a sports city in Europe.

## 4. MARKET

For the longevity of quality, each user of a Global Longevity can get all the necessary items in our Market using Longevity tokens:

### 4.1. Apartments and Land near the sea (purchase and rental)

Today, construction is one of the key sectors of the economy of any developed country. The situation in the European construction market is characterized by the willingness of the population and business to invest in real estate construction, renovation, reconstruction, etc. Advanced technologies in the construction of buildings and premises can significantly affect the standard of living population.

Investments in the embedding industry will ensure the expansion, reproduction and maintenance of capital.

Why is it profitable to invest in real estate in Georgia? It's simple. Because Georgia and especially its unique region of Adjara with the capital Batumi is a convenient geographical location, a well-integrated economy, a rare loyalty to investors, support for investment projects - all this is favorable conditions for business development. This is one of the few countries that has hardly suffered from the global financial crisis. A country with a high standard of living and great potential.

Investments in Switzerland are strongly supported at tax and legislative levels. Simple registration procedure, by European standards, low tax rates and small social contributions.

The construction industry in this country has traditionally been the benchmark for the introduction of advanced technologies, professionalism and reliability.

Today, real estate in Georgia is in demand among foreigners who want to invest their capital profitably. Since at quite affordable prices, the growth in the cost of housing increases annually by 20 - 40%. It should be noted that companies involved in the construction industry are trying to satisfy the demand for comfortable modern apartments, as well as office and industrial buildings that meet high standards and building standards. According to the reports of the National Registry of Georgia, despite the increase in prices, the number of transactions increased by 60%.

Today, Georgia is interested in attracting foreign investment in the country's economy, and therefore the government of the country is doing everything possible to attract these investments. Thus, the government of Georgia abolished the law, according to which the construction of facilities was limited. At the same time, the procedure for the acquisition of real estate by foreign citizens is as liberal as possible. Today, Georgian real estate is freely bought and sold.

I must say that it is much easier to buy it for a foreigner than in many other countries. According to local laws, foreigners can acquire any property on the territory of Georgia, including one that is of historical value. Moreover, there are less requirements for foreign citizens than for residents of the country. To purchase an apartment you need only a passport and the necessary amount of money. In addition, recalculation of money directly into the social insurance fund, the payment of all taxes associated with the construction and sale of the company imposes a developer. Moreover, in addition to utility payments, the buyer does not pay for the maintenance of the apartment, which significantly saves the monthly costs of maintaining the property. According to the Doing Business-2013 business environment friendly rating, which is annually compiled by the World Bank (WB) and the International Finance Corporation (IFC), Georgia occupies:

I place - Registration of property

III place - Obtaining building permits

VII place - Start a business

Wishing to buy property in attractive resort and recreational areas also opens up broad prospects and opportunities. Especially popular among foreign citizens is the region of Georgia - Ajaria, and in particular the city of Batumi - a port city, where they go for a unique flavor.

To the official web page of the National Agency for Public Registry, a function has been added to search for statements in Blockchain. From today, the consumer will be able to check the validity of the listing prepared for real estate in the global Blockchain global network directly from the official web page of the National Public Registry Agency.

In addition to the NAPR web page, citizens can still double-check the validity of the printout in connection with the Blockchain property on the special web pages of [blockchain.info](http://blockchain.info), [blocktrail.com](http://blocktrail.com),



btc.com, etc.

From February 20, 2017, information on the prepared real estate statement is automatically sent from the National Agency of Public Registry to the Blockchain system. Blockchain is a decentralized database. The records in it are stored in tens of thousands of computers all over the world.

Blockchain provides security, transparency, and availability of any transaction. It is impossible to erase, change, rewrite, or illegally manipulate the data that fell into it.

Georgia is one of the first countries to use Blockchain technology during real estate registration.

With the help of our services, Global Longevity users will be able to purchase real estate and land plots for Longevity tokens.

MORE INFO: <https://batumihouse.com/>  
<http://www.geo-home.com/>

## 4.2. Diagnosis and Treatment

### 4.2.1. Global Longevity Institute

With the help of our services, Global Longevity users can get all the necessary complex of therapeutic and diagnostic activities developed in Global Longevity Institute (GLI) for Longevity tokens.

The Global Longevity Institute is decentralized, regenerative medical and science organization that focuses on preventing diseases related to aging and improving quality of life of the people.

#### ***Life expectancy is influenced by factors such as:***

- age over 45 years for men and more than 65 years for women;
- family history (heredity);
- ecology and water;
- obesity.

The GLI focuses on innovation methods that can be rapidly translated into patient wellness (diet, physical activity, prevention of diseases, diagnostic, treatment) as well as projects that have long-term goals (pharmacological, regenerative, biotechnology). The professionals at the Global Longevity Institute study your personal health; and if they identify any signs in your organism which may result in illness, they offer an extensive range of treatments to make you as healthy as you can be.

#### ***Mission***

The Global Longevity Institute pursues its mission through a wide range of activities. It carries out original researches and analysis on issues related to global aging. It publishes information, articles and presentations that communicate its findings and recommendations to the broadest possible audience. GLI organizes and hosts conferences and forums that bring together science experts for constructive dialog about the scope of the global aging challenge and the most effective ways of the prolongation of life. Scientists and clinicians work together to identify and test dietary, pharmacological, regenerative and biotechnology, physical activity and engineering approaches to prevent multiple diseases of aging and maximize healthspan.

We are working in the synergism created by the various laboratories from 5 medical company and

attracting leading scientists interested in a longevity research-centered approach to improve human health.

#### 4.2.2. Anti-aging and medical checkup

With anti-aging medical checkup, the GLI medical specialists will address potential threats to your health and check your aging progress, to provide you with a one-on-one custom health care program to keep you healthy.

GLI anti-aging and medical checkup program is aimed at revitalising the entire body and suspension the ageing process

***Anti-aging and Medical Checkup includes:***

- Preliminary consultation, Result consultation;
- Physical Measurement and Obesity Index, blood pressure, EKG ;
- Evaluation of functional regulation of the autonomic nervous system by measuring heart rate variability;
- Complete Blood Cell Count and urine test;
- Isolated thrombocytosis - early marker of colon and lung cancer;
- Markers of Liver Cell Death.

The liver is the largest internal organ in the human body and its proper function is indispensable for many critical metabolic functions, including the regulation of lipid and sugar metabolism, the production of important proteins, including those involved in blood clotting, and purification of blood. There are over 100 described diseases of the liver, and because of its many functions, these can be highly debilitating and life-threatening unless effectively treated. Liver diseases can result from injury to the liver caused by a variety of insults, including hepatitis C virus (HCV), hepatitis B virus (HBV), obesity, chronic excessive alcohol use or autoimmune diseases.

Many people with active liver disease remain undiagnosed largely because liver disease patients are often asymptomatic for many years. According to the European Association for the Study of the Liver (EASL), 29 million Europeans have chronic liver disease, and liver disease represents approximately two percent of deaths annually. In studies has been shown that in obese people hepatic tissue was characterized by signs of accelerated aging.

There are two main pathways of liver cell death is apoptosis and necrosis.

ALT is an enzyme that is produced in liver cells and is naturally found in the blood of healthy individuals. In liver disease, liver cells are damaged and as a consequence, ALT is released into the blood, increasing ALT levels above the normal range. Physicians routinely test blood levels of ALT to monitor the health of a patient's liver. ALT level is a clinically important biochemical marker of the severity of liver inflammation and ongoing liver disease.

Elevated levels of ALT represent general markers of liver cell death and inflammation without regard to any specific mechanism. However, in later stage cirrhosis patients, ALT levels have been shown to not be elevated above the normal range. Aspartate aminotransferase (AST) is a second enzyme found in the blood that is produced in the liver and routinely measured by physicians along with ALT. As with ALT, AST is often elevated in liver disease and, like ALT, is considered an overall marker of liver inflammation.

Another important marker of liver cell death is a protein fragment called caspase-cleaved Cytokeratin 18 (cCK18). During apoptosis, a key structural protein within the cell called Cytokeratin 18, or CK18, is specifically cleaved by caspases, which results in the release of cCK18 into the blood stream. cCK18 is easily detected in the blood with a commercially-available test and is a mechanism-specific biomarker of apoptosis and caspase activity. Unlike ALT, cCK18 is elevated in patients with advanced liver disease and cirrhosis. Importantly, cCK18 is also present in healthy subjects and multiple studies have demonstrated an approximate basal level in healthy subjects. Numerous independent clinical trials and published studies have demonstrated the utility of cCK18 for detecting and gauging the severity of ongoing liver disease across a variety of disease etiologies.

These studies have demonstrated correlations between disease and cCK18 levels in patients with ACLF, LC, portal hypertension (PH), HCV, NASH and various other liver disease indications. For example, it has been shown that in HCV patients, the severity of liver disease was correlated with cCK18 levels and apoptosis, such that the more severe the disease, the higher the serum level of cCK18. In ACLF patients, studies have shown that blood levels of cCK18 were higher in non-surviving patients than in patients that survived. In LC patients, studies have shown that cCK18 levels are elevated and correlate with liver inflammation and cholestasis. cCK18 is a valid and important biomarker of excessive apoptosis in liver disease.

- Leptin
- Markers of inflammation

Early signs of cardiovascular disease include high blood pressure, rapid heart rate, and a high level of markers of inflammation in the blood, including the concentration of C-reactive protein (CRP), as well as homocysteine and fibrinogen.

- Analyzing hormones. Total Testosterone, Free Testosterone, FSH, LH, Estradiol, Progesteron, Prolactin, Cortizol. **Thyroid:** TSH, Free T4, Free T3, TG, TPO.

Evaluation of imbalance for homocystein, growth hormones, sex hormones, adrenal hormones, pancreatic hormones and thyroid hormone tests. Growth hormones and DHEA-S hormone levels linked to Anti-Aging, depression, stress and fatigue.

- Marker of DNA damage and oxidative stress of 8-oxo-dGsn. 8-oxo-2'-deoxyguanosine (8-oxo-dG) is an oxidized derivative of deoxyguanosine. 8-oxo-dG is the predominant form of DNA damage from oxidative stress.

With age, due to oxidative stress in DNA (a molecule where the genetic code of an organism is encoded), errors and mutations arise. The faster the rate of accumulation of DNA damage and mutations, the faster the aging of the body.

- Immune Function Test.

Your immune system protects you from germs, viruses, and chronic illnesses. Enhance your immune system by testing your NK (Natural Killer) cell activity level. NK cells are “natural killer” cells that respond to and destroy virus-infected cells and tumor cells. Aging is another fundamental factor in the development of cancer. The incidence of cancer increases dramatically with age. This is due to the accumulation of random mutations and epimutations, an age-related decrease in immunity and the effectiveness of DNA repair processes.

- Evaluation of accumulated heavy metals in the body and nutrient mineral imbalances by hair tissue analysis.
- Evaluation of the human body energy metabolism, detoxification function and proliferation of pathogens (bacteria, fungi)

- Vitamin B12 and folic acid are mortality and aging brain marker.

Folate and vitamin B12 are required both in the methylation of homocysteine to methionine and in the synthesis of S-adenosylmethionine. S-adenosylmethionine is involved in numerous methylation reactions involving proteins, phospholipids, DNA, and neurotransmitter metabolism. Both folate and vitamin B12 deficiency may cause similar neurologic and psychiatric disturbances including depression, dementia, and a demyelinating myelopathy.

A current theory proposes that a defect in methylation processes is central to the biochemical basis of the neuropsychiatry of these vitamin deficiencies. Folate deficiency may specifically affect central monoamine metabolism and aggravate depressive disorders. In addition, the neurotoxic effects of homocysteine may also play a role in the neurologic and psychiatric disturbances that are associated with folate and vitamin B12 deficiency.

- **Bone health:** 25-OH vitamin D, Calcium, Phosphate, Albumin

**Cardiovascular and inflammatory risk:** Lipids and inflammation. Apolipoprotein A1, Apolipoprotein B, Ratio Apo B/ Apo A1. Lipoprotein (A), Cholesterol total, Cholesterol HDL, Cholesterol LDL, Triglycerides, Ultra-sensitive CRP.

- **Uric acid**

Thickness of the intima-media complex of the common carotid artery.

- **Diabetic\_risk**

**Insulino-resistance:** Fasting glucose, Fasting insulin, HOMA index.

- **The glomerular filtration rate is a marker of kidney aging, CVD mortality and prostate cancer risk.**

- **Gastroscopy** is the diagnosis of stomach cancer at an early stage.

- **Colonoscopy is the diagnosis of colon cancer, as well as the analysis of feces for latent blood is an aybob test (1 every 3 years after 50 years).**

- **Multispiral computed tomography (MSCT) of the abdominal cavity organs (necessarily with contrast !!!) for the diagnosis of pancreatic cancer and liver (1 every 3 years after 40 years).**

- **IGF1 (Somatomedin C)** is a marker of the rate of aging and the risk of cancer, dementia and diabetes (once a year, starting at age 21).

- **yNutrition, metabolism, sports.**

**Iron metabolism:** Iron, Ferritin, Transferrin, Soluble receptor TFE

We offer Genetic Testing in GLI. Genetic testing provides valuable information about our health that allows us to take the correct measures to improve our health and vitality, as well as prevent potential diseases. By understanding what lifestyle habits we should adopt and what nutrition plan suits us best, we can boost our health and prevent premature aging.

What are the benefits of genetic testing?

***Genetic testing reveals the genetic markers that:***

- Determine what foods we are intolerant to;
- The recommended ideal diet type for us;
- The fitness plan that suits us best;
- Prevention for possible diseases we could develop due to our genetic make-up.

What if you could find out what types of workouts are the most beneficial and effective for your





body? What foods you're intolerant to and which ones you should be including in your diet? Thanks to genetic testing, it's possible. The future of health and fitness is hyper-personalisation through DNA tests.

Through genetic testing, we can analyse the genetic make-up of each individual and gain a better understanding of our wellness needs. Instead of settling for a generic plan that might work for one person, but not for each individual, you can have access to a fitness plan that is tailored to your DNA, improving the benefits, efficiency and endurance of each individual.

Genetic testing doesn't only provide valuable information about what the most appropriate workout plan is for each person, but also nutritional advice based on your DNA results. As a result, you're able to create a personalised nutrition and fitness plan adapted to your needs and provide the best results for your health and wellbeing.

If you want to create a hyper-personalised health and fitness plan, then you should consider getting a DNA test to determine your body's needs.

Maintaining a healthy and active lifestyle will play a big part in the effectiveness of the treatment.

***To get the most out of the treatment results, you should:***

- Regularly perform the exercises prescribed by your doctor.
- Maintain your recommended weight and body mass index.
- Improve your diet to include:
  - Fresh fruits and vegetables
  - Whole grains and beans
  - Lean meats and fish ( reduce your portion size of these food groups)
  - Plenty of water
- You should avoid or limit your consumption of:
  - Starchy vegetables
  - Processed foods (foods with a high glycaemic index)

We will prepare an individual nutrition plan to help you maintain healthy.

### 4.2.3. High Technologies of Longevity

High technologies of longevity include the latest new drugs and resources that exist in the world practice for prolonging life.

The rejuvenation program includes only natural products, anti-oxidants, senolytics, polyvitamins, minerals, aminoacids and chelating agents. No secondary effects. These treatments have been created and patented by Dr Elina Manzhali.

High technologies of GLI - comprehensive approach to prolonging life.

GLI helps you to live healthier and beautiful lifestyle by slowing down the aging process.

We recommend high technologies of longevity to people with fatigue, sleep disorder, stress, and hormone syndrome and for prevention of diseases.

**Detoxification therapy.**

High technologies of longevity programm conduct the systematic analysis on causes of diseases and obesity, including patients' genetic background, the state of energy metabolism, toxin causing inflammation, and hormone balance. According to the analysis result, a suitable detoxification therapy

for blood, intestines, liver, skin is applied to improve the physical constitution and boost energy. In addition, as a personalized treatment, simple body-shape management as well as lymph drainage are available. Our therapies are recommended for those who wish to manage their health in preparation for their middle age or golden years, those who often suffer from minor illness or easily get fatigued, those who want to tone their bodies or get rid of firm fat.

**Treatment to increase the energy**

**Chelation of toxins and heavy metals**

**Stimulation of the immune system**

**Antyoxidant cocktail**

**Super high dose natural vitamin therapy**

### **Biotechnology therapy**

Our application of stem cells is used to treat patients in a minimally invasive procedures with maximum results. We use innovative technologies with stem cells as one of the most effective anti-ageing treatment methods.

Stem cells are the basic building blocks of the human body, able to turn into any of 240 types of specialised cells. However, with age, the number of stem cells steadily decreases. That's one of the reasons for the slower healing of wounds and fractures in the elderly, the higher likelihood of injury and the emergence of a number of chronic diseases. For example, if at birth the content of stem cells in the human body is 1 per 10,000 total cells, then in 50 years there is 1 per 500,000, and at age 70, 1 per 1,000,000. To maintain the body's regenerative capacity, it's also possible to bank stem cells.

Stem cells play the crucial role of replacing damaged and ageing cells – something no drug is capable of. When administered to the patient, stem cells migrate to the affected organs and provide restoration of entire biological structures; they also help normalise metabolism, align the body's immune status and increase resistance to tumours. The programme also has a positive effect on sexual function.

These type of treatments with the advancements that await us in the future, give us the possibility of combating illnesses without the secondary effects that we have nowadays due to pharmaceuticals treatments, as well as the prevention and treatment of many illnesses and conditions including premature aging. If for example we have a damaged liver due to illness and we're able to transplant the liver with a liver produced by stem cells from the patient (investigation and work that is already in progress), we will be taking a huge step in the direction of a new reality in human longevity and the medical practice.

### **Stress management**

We all suffer from stress and anxiety from time to time, whether it's because we are facing a stressful period at work or in our personal life. Whilst sometimes there isn't much we can do about the circumstances we're facing, we do have control over how we react to these situations, simply by using the tools that are available to us, like for example, breathing. We forget how important breathing is for our inner balance and wellbeing and by simply doing some breathing exercises throughout the day, we're able to reduce our cortisol levels and activate our parasympathetic nervous system (PNS) that is responsible for relaxing the body, decreasing heart rate, lowering blood pressure and respiratory rate and diverting blood supply all over the body. Stress management is an important health demand in developed and rapidly developing countries. The principle of stress management consists of four



strategies. That is, reduction of stressors, culture of stress tolerance, enrichment of supporting resources, and early detection of manifestations of physical and mental disorders.

Depending on the blood results and the anamnesis of the patient, this treatment can be adapted and focused on specific health problem.

#### 4.2.4. Research

##### **Research Topics**

- Aging
- Nutrition
- Obesity
- Nonalcoholic fatty liver diseases
- Cardiovascular Diseases
- Cirrhosis and complication
- Neurodegenerative Diseases

MORE INFO: <https://globallongevityinstitute.org/>

#### 4.3. Legal Assistance

Global Longevity's Law Practice is a leading law firm providing a full range of expert legal services to individuals and business entities by their activities to Georgia.

The Firm employs team of professional staff and Outsourcing legal, tax and business advisors in different areas of practice. Our team consists of Licensed Attorneys, Certified Property Appraisers, Expert – financiers, Business & Tax Consultants.

The executive team of our law firm consists of highly qualified and licensed Georgian lawyers. Our attorneys advise and represent clients in connection with all Georgian law matters including Corporate and Business, Tax and Customs, Commercial, reorganization (merger and joining, division, allocation) and the liquidation of legal entities, Contracts, Immigration, Workplace Issues, Family and Inheritance, Civil, Administrative and Criminal Law, Intellectual Property, Banking and Finance, capital markets and insurance law, Bankruptcy, Foreign Investments, Privatization and legalization, Real Estate and Construction, Licenses and Permits, agriculture and food industry, Energy and natural resources, Media and Communications, Government Affairs, Dispute Resolution, Litigation and Arbitration.

Our lawyers have postgraduate advance degrees from the well-known Georgian, US, and UK law schools and admitted to Georgian Bar. All attorneys and staff are fluent in English, Russian and Georgian and have significant experience in collaborating with foreign law firms in several jurisdictions.

Our law office delivers "excellence" in legal services. In our view, the concept of "excellence" embraces "effective" in both the results and cost sense. Our clients' decision to retain us is based on their confidence in our legal skills, integrity and good judgment. Equally important is our clients' belief that we will make every effort to minimize the legal costs. Thus, contributing to our clients' business success is one of the main targets of our law firm.

We have access to the world's largest companies, which helps us provide various important legal products. Our many years of experience have contributed to the success of numerous business projects.

Professionalism, honesty and a sense of responsibility enable us to solve all our clients' legal needs. We work efficiently to achieve the best possible results for our clients.

#### 4.4. Pharmacological Products



The uniqueness of all products under the Global Longevity Pharmaceuticals TM is that the recipe and assortment are developed and approved by the Global Longevity Institute's Expert Council.

The scientists of The Global Longevity Institute prove that there are many opportunities in pharmaceuticals, stem cell therapy, as well as in innovative equipment and mental mechanism. In one of the Global Longevity Institute's projects, drugs have been developed that act on cells that cause aging. With aging, loss of muscle mass, inflammation, metabolic and mental changes develop. The Global Longevity Institute especially for Global Longevity Pharmaceuticals TM has developed drugs that cause rejuvenation of cellular and molecular structures in order to prolong human life. The unique composition of drugs that are developed by the staff of the institute includes substances with a direct effect on cell regeneration, immune and energy support.

We use special bacteria in the preparations, which synthesize compounds that slow down the progression of tumors.

The way to prolonging life is to restore the body's ability to respond to stress, known as homeostatic capacity. As we get older, our capacity declines, causing functions to weaken.

Our drugs include components that affect the system of homeostasis, such as hormetins, epigenetic substances, activator telomerase and geroprotectors from the class caloric restriction

mimetics.

The composition also includes substances with the help of which neutralization of damaging agents occurs, which causes a disturbance of homeostasis.

We also use such types of geroprotectors as inhibitors of cross-linking, neurotropic substances and peptides.

#### 4.5. Organic Food Products for GLOBAL LONGEVITY

The uniqueness of all products under the Global Longevity Organic Food™ is that the recipe and assortment are developed and approved by the Global Longevity Institute's Expert Council.

Absolutely all fruits and fruits are grown in ecologically clean mountainous areas in Georgia. This makes it possible to produce environmentally friendly products of high quality without preservatives, emulsifiers and chemical additives.

Our partners have many years of experience in the production of canned fruits and vegetables and baby food. All products are manufactured according to international quality standards and are presented under the brand name "Global Longevity Organic Food". Products tested in independent laboratories and has quality certificates and certificates of conformity.

At present, the product line is more than 70 items, which are exported to 19 countries of the world.

The uniqueness of all products under the Global Longevity Organic Food™ is that it is used for the production of juices, sauces and seasonings:

- ECOLOGICALLY CLEAN VEGETABLES, FRUITS AND FRUITS that are not treated with chemicals during growth;
- Washing vegetables and fruits, fruits and greens three times a day during production (washing should be carried out with spring water);
- Own laboratory that controls product quality at all stages of production;
- Microbiological control;
- Glass packaging, which helps to preserve healthy and tasteful products;
- Juice and preserves under the TM "Global Longevity Organic Food", besides exquisite taste and quality, have therapeutic and prophylactic properties.





## BRAN, FIBER, DIETARY SUPPLEMENTS

### PLANT FIBER OF GROUND AMARANTH SEEDS

#### Amazing health benefits

Fiber from ground amaranth seeds is a product of increased biological value and a product of special dietary use. It is well absorbed and saturates the body with valuable nutrients.

Fiber of amaranth seeds is distinguished by a well-balanced amino acid composition. Lysine, which is a part of its composition, has high antiviral properties. It also contributes to the normal functioning of the heart and circulatory system. With the help of lysine, enzymes and hormones are synthesized. The formation of antibodies occurs with its participation. Methionine, contained in the amaranth seeds' fiber, protects the body from the destructive effect of salts of heavy metals and radiation. Tryptophan, present in this cellulose, normalizes metabolic processes in the human body.

Fiber, which amaranth seeds are rich in, in combination with other trace elements, is indispensable for the treatment of obesity and the fight against excess weight. With its help, cholesterol is excreted from the body, the intestines are cleared, fats are split. The fibers in the fiber absorb the bad cholesterol, thus preventing it from being deposited on the walls of blood vessels in the form of blood clots and cholesterol plaques, which helps prevent cardiovascular diseases and stroke. A large amount of plant fiber allows you to satiate and satisfy hunger faster for a longer period, which in turn allows you to eat less food and, accordingly, get fewer calories.

### PLANT FIBER OF GROUND HEMP SEEDS

### Amazing health benefits

It is recommended to use it as a dietary supplement to the diet. Normalizes the work of the digestive tract, helps to lower the level of cholesterol in the blood, for improving the immune system, to reduce the likelihood of blood clots, improves the functioning of the liver, for the prevention of thyroid diseases, as an obligatory element in the diet of pregnant women, with diabetes.

The most important components of cellulose from hemp seeds are essential higher fatty acids: OMEGA-3 and OMEGA-6. With diabetes, OMEGA-3 improves the action of insulin and protects the body from the onset and development of diabetes. This not only improves the perception of insulin, but reduces the cholesterol in the blood.

Fiber provides the work of the entire gastrointestinal tract. Absorbing all the excess that accumulated in the body for many years, cellulose has a cleansing effect for our body.

Fiber promotes more complete digestion of food and normalizes the intestinal microflora. Fiber is recommended for people who are overweight and obese for normalization and weight correction. Such people use fiber to replace food, washing it down with a fairly large amount of water.

It is possible and useful to add fiber to the composition of any dishes. Vegetable fiber is an indispensable unique product: it's a daily meal and a healthy bread substitute, in the cellulose there is no yeast and white flour. Great for breadmaking.

Contraindications: individual sensitivity to individual components.

The use of vegetable fiber from ground hemp seeds

The seeds of hemp have recently attracted increasing attention, both from scientists and from adherents of healthy nutrition. Scientists have already made many discoveries, proving the numerous advantages of hemp seeds and their health benefits. Even in ancient China the hemp was grown, there it was considered not a narcotic, but a remedy.

Seeds of hemp are absolutely safe, because Psychotropic substances (cannabis) are found only in the inflorescences and in its leaves.

Healing properties of cannabis seeds have a wide range of effects on the human body and are of great benefit. In the seeds of hemp there is a high concentration of biologically active substances, minerals and vitamins, bioflavonoids, antioxidants and amino acids, irreplaceable higher polyunsaturated fatty acids was found. Hemp seeds are especially rich in the irreplaceable higher polyunsaturated fatty acids OMEGA-3 and OMEGA-6. OMEGA-3 and OMEGA-6 are present in the seeds of hemp in the optimal ratio, which creates their ideal balance in the human body.

In addition, the seeds of hemp have an extremely high level of content of Arginine.

Macro- and micro elements are contained in hemp seeds: phosphorus, potassium, magnesium, calcium, iron, zinc, sodium, manganese, copper.

Vitamin composition of cannabis seeds: vitamins of group B (B1, B2, PP, B5, B6, B9), E, C, A, beta-carotene.

Hemp seeds are also rich in chlorophyll.

The hemp seeds contains 18 amino acids.

The uniqueness of hemp proteins is that its seeds contain 65% GLOBULINA, and also include a large number of ALBUMIN. This is the highest index in plants. The proteins of hemp seed GLOBULIN and ALBUMIN are similar to the corresponding proteins of human blood. GLOBULIN is responsible for the immunity of a person against the invasion of other organisms. Our body uses GLOBULIN for the production of antibodies that fight against bacteria and viruses. In this regard, hemp seeds are recommended not only to maintain and strengthen immunity, but also they can help people suffering

from the disease of immune deficiency.

Hemp seeds DO NOT CONTAIN the protein GLUTEN, so they can take a worthy place in the diet of patients with CELIACIA (a disease in which the use of cereals containing gluten: wheat, rye, oats and barley is contraindicated).

FROM THE SEEDS OF HEMP IS MADE THE UNUSUAL USEFUL OILS THAT CURE A MULTIPLE OF VARIOUS DISEASES AND IS VALUABLE MEANS OF SUPPORTING YOUTH, BEAUTY, HEALTH AND LONGEVITY.

#### Useful properties of hemp seeds

- Seeds of hemp have a curative effect on the digestive and cardiovascular systems, beneficially affect the endocrine glands, stimulate the organs of the genitourinary system, improve the state of the nervous system.
- The seeds of hemp normalize the work of the stomach and intestines, have an enveloping property, thereby protecting the mucous membrane of the gastrointestinal tract from damage by rough food.
- Seeds of hemp inhibit the development of diseases of the biliary tract and liver.
- Hemp seeds activate the process of regulation of the normal hemoglobin level, so the cellulose of hemp seeds is used for preventive and complex treatment of anemia (reduction of hemoglobin in the blood).
- Seeds of hemp inhibit the development of atherosclerosis and thrombosis of blood vessels, and magnesium and potassium contained in them, strengthen the muscles of the heart.
- Seeds of hemp have bactericidal anti-inflammatory and antiparasitic properties. In this regard, are an effective tool for inflammatory and infectious diseases of the respiratory system.
- Hemp seeds have a beneficial effect on concentration of attention, improve memory, increase mental and physical performance, are a good remedy for insomnia and stress.
- Hemp seeds have analgesic and diuretic properties. In this regard, traditional medicine uses hemp seeds to treat the urinary system.
- In dietary nutrition, the cellulose of hemp seeds is used to reduce excess weight, treat obesity and diabetes.
- Thanks to the use of ground hemp seeds, the peristalsis of the intestine is activated, and the body clears from toxins and toxins.
- Eating the fiber of hemp seeds facilitates the condition of men with prostatitis, prostate adenoma, erectile dysfunction, infertility. With the preventive use of ground hemp seeds, the risk of these diseases decreases.
- When eating ground hemp, the production of breast milk in breastfeeding women is enhanced.
- Included in the composition of hemp seeds, gamma-linolenic acids help women cope with postmenstrual syndrome.
- The use of hemp seeds in food has a beneficial effect on the skin, preserving its elasticity, on the hair and nails.
- In folk medicine, hemp seeds are used to treat skin diseases (dermatoses, eczema).
- Recent studies of scientists confirm the usefulness of the application of hemp seeds in the treatment of cancer.

The range of application of ground hemp seeds is wide and varied. Due to its medicinal properties, the cellulose of hemp seeds is a useful and effective additive to food literally to all people. Its use greatly



improves health and longevity.

Hemp seeds are rightfully assigned to a group of super-useful food products. They differ rich in nutrient composition and are completely absorbed by the human body.

Ground hemp seeds are considered to be one of the most useful and valuable dietary products that can be included in your diet every day and which are both a curative and a useful food.

Especially the healing properties of cannabis seeds are valued by people who run a healthy lifestyle, those who are accustomed to eating consciously.

#### PLANT FIBER OF GROUND PUMPKIN SEEDS

##### Amazing health benefits

It is recommended to use as a dietary supplement to normalize lipid exchange and cholesterol level in blood, to improve the overall state of the body, to normalize prostate function, for prevention of the cardiovascular and nervous system, to normalize digestion and GI tract function, to remove toxic substances from the body, for people who suffer from overweight and obesity for the normalization and correction of body weight. People who are overweight, it can replace the main meal, washing it down with a lot of water.

It is possible and useful to add fiber into the main dishes. Plant fiber is the indispensable unique product: a daily meal and healthy substitute for bread, because there is no white flour and yeast in the fiber. Great for breading.

Use for food: adults and children from 12 years: 1 teaspoon (5g) twice a day with meals, drink water.

Contraindications: individual sensitivity to the particular components.

##### The benefits of ground pumpkin seeds` fiber

It is recommended to use as a dietary supplement to normalize lipid exchange and cholesterol level in blood, to improve the overall state of the body, to normalize prostate function, for prevention of the cardiovascular and nervous system, to normalize digestion and GI tract function, to remove toxic substances from the body, to regulate the function of the reproductive system, for the normalization of spermatogenesis and ovarian cycle, to prevent gallstones, to prevent progress of inflammatory processes of the genitals, as antiparasitic and anthelmintic drug, for people suffering from overweight and obesity, and for normalizing and correction of body weight.

Fiber gently removes hangover. Unlike traditional tools used for this purpose, fiber not only quickly improves health, but also absorbs poisons and decay products, causing hangover.

Getting into the stomach, fiber swells and acquires the ability to absorb and remove toxic substances from the body, toxins, excess cholesterol, bile pigments and ammonia. Fiber helps to better digestion and normalize gut microflora. It is recommended for people suffering from overweight and obesity for the normalization and correction of weight. People who are overweight can use it as substitute of the main meal, washing it down with a lot of water.

Plant fiber is the indispensable unique product: a daily meal and healthy substitute for bread, because there is no white flour and yeast in the fiber. It is possible and useful to add fiber into the main dishes.

Getting into the gastrointestinal tract, fiber absorbs everything that has accumulated in our gut for many years. And there is a lot of accumulated: the average person because of layers on the walls of the large intestine, its diameter narrows 2-3 times. These layers (fecal stones, pus, mucus, etc.) are absorbed and removed from the body by fiber. Cleansing the body from toxic substances, fiber removes



nitrites which entered the body with fruits and vegetables.

The fiber contains a unique microelement importance of which is only now getting started to be realized by science. It's – silicon, sending and receiving impulses of the brain.

Silicon has the ability to "stick" to itself viruses and pathogens, unusual for a man, which are removed then from the body. The selecting "gluing" ability of colloidal silica systems, is unique. Influenza viruses, hepatitis, arthritis, rheumatism and other microorganisms that cause pathology are sucked into colloidal silicon formations by electrical force of attraction, both in the blood and the GI tract.

Effect of fiber on a man's weight is caused by its effects on metabolism. It is a metabolic disorder leads to increased weight. Fiber does not burn fat but eliminates the very reason – violation of the metabolic processes in the body. That is why people who have overweight, lose the weight and skinny people on the contrary get the optimal weight.

If you like to eat excessively – do not forget to add to your food fiber: its digestion requires more energy than usual. On average, you will lose 150 calories a day, not applying to this absolutely no effort. Exactly as we lose during 20-minute jog.

Fiber – it's not a medicine, which is no longer taken after recovery. It should become part of your lifestyle – your daily meals (even in small amounts) and your healthy habit. After all, if we inevitably litter the body a little each day, then there must be a means, for every day cleaning it.

Insufficient use of fiber in the diet of people, has led to a significant increase of patients' number with chronic constipation, hemorrhoids, appendicitis, colon cancer, diverticulosis, inflammatory diseases of the colon.

There is evidence of the protective effect of fiber in coronary heart disease, gallstones, diabetes, obesity. Therefore, the use of fiber as a cleaning agent to the body is reasonable as a preventing mean.

Fiber absorbs and retains water and regulates the motor activity of the bowels, intracolonic pressure, creates feeling of satiety, facilitates the acceptability of low-calorie diets, and normalizes the intestinal microflora.

In the bread, during its prolonged heat treatment manufacture, die most vitamins. The content of vitamins in white flour – is negligible. Yeast contained in bread, cause fermentation processes, leading to bowel disease.

Fiber is an alternative to bread – thermal treatment lasts seconds so vitamins virtually don't die and yeast are completely absent. All this makes the fiber healthy substitute for bread, food for sober-minded people aware of imminent retribution for their ignorance in matters of food.

Pectin contained in the plant fiber, called "a medicine against the harmful effects of the city". Pectins are natural polysaccharides contained in almost all plants.

Pectin reduces cholesterol in the body, contributes to the normalization of metabolic processes, improves peripheral circulation and peristalsis.

However, their most valuable property is that they have the ability to clean alive organisms from harmful substances. And this natural "cleaner" works very effectively, without leaving any "garbage" and thus not disrupting bacterial balance. Pectins remove toxic metal ions, pesticides and radionuclides. Therefore pectins are used as a prophylactic means in a harmful environment saturated with heavy metals, radioactive substances and nitrites.

In the process of digestion pectin turns into acid, which combines with heavy metals and radionuclides, resulting in formation of insoluble salts, which are not absorbed by the mucous of the GI tract and under the influence of fiber, rapidly removes from the body.

Neither pectin nor cellulose can be digested in the stomach, both do not turn into fat deposits, but clean, absorb and excrete everything unnecessary and harmful. It takes 2-3 months to cleanse the body by receiving fiber.

The structure of the ground pumpkin seeds fiber

Ground pumpkin seeds fiber is unique in its structure. It contains a lot of the necessary for the human body substances. First of all, it is extremely useful and perfectly digestible by the human protein. Its share in such fiber reaches 40%.

Ground pumpkin seeds fiber is called pharmacy in miniature, because a small amount of this product contains daily norm of minerals and amino acids necessary for an adult. So:

- Unsaturated fats: Omega-3, Omega-6;
- Vitamins: A vitamin, B (B1, B2, B3, B4, B6, B9) group vitamins, C vitamin, F vitamin, E vitamin, P vitamin, K vitamin, T vitamin;
- Amino acids: essential: Valine, Isoleucine, Leucine, Lysine, Methionine, Threonine, Phenylalanine; a conditionally essential amino acids: arginine, cysteine; Interchangeable: glycine, glutamine;
- Phytosterols;
- Flavonoids;
- Phospholipids;
- Chlorophyll;
- Cucurbitin;
- Micro and macro elements: Ground pumpkin seeds fiber – a rich source of minerals, it contains more than 50 micro-and macro. Here is the most important of them: Iron, Potassium, Calcium, Magnesium, Manganese, Selenium, Zinc, Phosphorus, Fiber.

Ground pumpkin seeds fiber is a product containing a small amount of fat, but is rich in protein. It is a natural protein-vitamin-mineral complex needed by the human's body for a full life, besides it's absolutely all-natural, balanced and easily digestible.

The benefits of ground pumpkin seeds fiber in the medical treatment and prevention of diseases

Ground pumpkin seeds fiber, no doubts, is a very healthy product. Due to its unique composition, it will be useful not only for healthy people, but also can help people suffering from the following diseases and, of course, as part of a treatment:

**Diseases of the cardiovascular system.** Polyunsaturated fatty acids, flavonoids, A, C and E vitamins, and macroelement magnesium have beneficial effect on blood vessel walls: strengthen the vessel walls, increase their flexibility, prevent progress of inflammatory processes. Vitamins B4 and E, phytosterols, magnesium and zinc help to lower blood cholesterol level. Vitamin K and potassium – known regulators of blood coagulation. Besides, Ground pumpkin seeds fiber if used regularly helps to normalize blood pressure.

It is recommended to use such fiber in the diet of patients with hypertension, atherosclerosis, coronary heart disease, stenocardia and the ones who had heart attack or stroke.

**Metabolic diseases.** Ground pumpkin seeds fiber, if used regularly as food supplement, helps to better fat metabolism and, in the end, prevents the progress of obesity. Fiber, as is well known, slows the absorption of carbohydrates. Thus, the ground pumpkin seeds fiber helps to stabilize blood sugar level. furthermore, it contains a number of amino acids and trace elements, which promote the synthesis of natural insulin by the pancreas.



Thus, regular consumption of ground pumpkin seeds fiber enables to reduce the dose of antidiabetic drugs for patients with type II diabetes. It is recommended to include a dietary fiber if having obesity.

**Anemia.** Ground pumpkin seeds fiber is rich in vitamins B, C and E, trace elements zinc and iron, as well as chlorophyll, involved in the synthesis of hemoglobin. It is recommended to regularly include this product in the diet of patients with anemia and as a prevention of this disease.

**Diseases of the digestive system.** The active ingredients of the ground pumpkin seeds fiber have a very healthy effect on all organs of the digestive tract.

It is recommended to include it in the daily diet of patients having gastritis, stomach ulcer and duodenal ulcers, colitis, enterocolitis, gastroduodenitis, esophagitis, dysbiosis, as well as for the prevention of these diseases. This fiber has a mild laxative effect and contains dietary fiber, so it can be recommended for those who have constipation and meteorism.

**Diseases of the liver and biliary tract.** The ground pumpkin seeds fiber contains amino acids arginine, methionine and threonine, which have a strong hepatoprotective action and prevent the progress of liver fatty infiltration.

It's recommended to use such fiber for people suffering from cholelithiasis, cholecystitis, biliary dyskinesia, fatty liver, alcoholic and viral hepatitis, and liver cirrhosis.

**Cleansing the body.** Regular consumption of ground pumpkin seeds fiber will be sort of "spring cleaning." This product contains polyunsaturated fatty acids, flavonoids, methionine and, of course, fiber. They will remove toxins, salts of heavy metals and other harmful substances, accumulated in the human body. And cucurbitin take care of parasites` removing.

**Diseases of the nervous system.** As part of the ground pumpkin seeds fiber there is B vitamin, magnesium, flavonoids and amino acids glycine, glutamine, phenylalanine, which have beneficial effect on the human nervous system. Regular consumption of the product improves mood, betters sleep, apathy and depression disappear.

It is recommended to include the ground pumpkin seeds fiber in the diet of people with various neurological disorders, alcoholism, apathy, depression, insomnia.

**Diseases of female genitalia.** Ground pumpkin seeds fiber is a natural protein-vitamin-mineral complexes, also has anti-inflammatory action. It is recommended to include this product in the diet for all gynecological diseases, infertility.

**Diseases of male genitalia.** It is recommended to regularly include ground pumpkin seeds fiber to the diet for prostate cancer, prostatitis, male infertility, impotence, as an additional source for the male body of the necessary amino acids, vitamins and trace elements.

**Diseases of the excretory system.** The active ingredients of the ground pumpkin seeds fiber also has a positive effect on the human urinary system, providing anti-inflammatory and antibacterial properties. It is advised to use for diseases of the kidney, bladder and urethra.

**Circulatory system diseases.** Ground pumpkin seeds fiber has anti-inflammatory, antibacterial and anti-allergic effect, as well as is an additional source of essential amino acids, vitamins and minerals. It is recommended to regularly use this product in the diet of people with dermatological diseases: seborrhea, psoriasis, eczema, urticaria, diathesis, hyperkeratosis, acne, herpes sores.

Regular consumption of ground pumpkin seeds fiber in food reduces the risk of chronic and allergic diseases. We can recommend the use of this product as a preventive means and as complex treatment of respiratory organ diseases, eye, mouth.

Undoubtedly, this the most valuable product is useful also for healthy people as a natural protein-



vitamin-mineral complex. Regularly used, ground pumpkin seeds fiber promotes strengthening the memory, increases attention, increases physical and mental capacity, nervous strain and stress relief.

It is recommended to include the ground pumpkin seeds fiber in the diet of athletes, since the components of this product help to increase muscle mass, are an excellent source of energy for muscle cells, affect the strength and speed of muscle contraction.

This valuable nutritional product is also useful for children, pregnant women, nursing mothers, people who underwent surgery and the weakened ones by disease. Ground pumpkin seeds fiber is a great means of winter-spring avitaminosis prevention.

The use of ground pumpkin seeds fiber

**As the medicinal and prophylactic purposes** it's recommended to take 1-2 tablespoons ground pumpkin seeds fiber mixed with water or any sour milk drink, drinking yogurt, sour milk, fermented baked milk, etc. in the morning and evening. The course is 2-4 weeks. These courses are better to take 3-4 times a year.

**The use of ground pumpkin seeds fiber in home cosmetology.** It is worth noting that the regular consumption of ground pumpkin seeds fiber as food has beneficial effect on skin, hair and nails condition. To enhance the effect, you can make creams and masks with it as addition. Make masks with the addition of ground pumpkin seeds fiber on a regular basis, and your skin will acquire elasticity, acne and pimples will disappear. Hair masks with such fiber will save you from dandruff, give hair volume and natural shine.

**The use of ground pumpkin seeds fiber in cooking.** We must remember that the ground pumpkin seeds fiber – is first of all – foodstuff. Its use in cooking helps to diversify your menu, make healthy and tasty dishes.

We recommend adding ground pumpkin seeds fiber to the dough in home-baked cooking: 100-150 grams of fiber for 1 kg of wheat or rye flour. Your pastry, made of such dough will always be surprisingly fluffy and will have unusual yellowish color, moreover – it does not get stale and moldy for much longer. If your baking is also not exposed to prolonged heat treatment (rolls, small muffins, pancakes, muffins, rolls for thin biscuits, cookies ...), then the ground pumpkin seeds fiber saves almost all its nutrients.

It is useful to add ground pumpkin seeds fiber into the ready-made porridge, soups. Can be used as a thickener agent in cocktails, sauces, jelly, and creams.

Ground pumpkin seeds fiber is perfectly matched with sour milk products. It gives them a golden yellow hue and a pleasant taste and aroma.

Including ground pumpkin seeds fiber to the diet, you “kill two birds with one stone” at once: it's diversification of your menu, with no extra effort from your, on one hand, and getting priceless health benefits.

#### **Contraindications for use of ground pumpkin seeds fiber**

Contraindications for use of ground pumpkin seeds fiber is only individual intolerance to the product. However, people suffering from cholelithiasis and cholecystitis, should consult a doctor before use of the product.

#### **PLANT FIBER OF GROUND PEANUT KERNELS**

It is recommended to use as a dietary supplement to the diet for the normalization of the GI tract, as an additional source of plant protein, for high level of cholesterol in blood, coronary heart disease, atherosclerosis, disorders of the genitourinary system, reducing the flexibility of the walls of blood



vessels and muscle activity, liver damage, lowered immunity, and excessive body weight. Getting into the stomach, peanut fiber swells and acquires the ability to absorb and remove toxic substances, toxins, excess of cholesterol, bile pigments and ammonia from the body. Due to the presence of pectin there is a process of mucosa's protection from pathogenic and putrefactive microorganisms.

Fiber promotes more complete digestion. It is recommended for people suffering from overweight and obesity for normalization and correction of weight. Such people can replace main meal with fiber, washing it down with a lot of water.

It is possible and healthy to add fiber to any dishes. Plant fibers is an indispensable unique product: a daily meal and healthy substitute for bread, because there is no white flour and yeast in the fiber. Great for breading.

Serving: adults and children from 12 years: 1 teaspoon (5g) twice a day with meals, washing it down with water.

Contraindications: individual sensitivity to the its components.

The benefits of ground peanut kernels fiber

It is recommended to use as a dietary supplement to the diet for the normalization of the GI tract, as an additional source of plant protein, for high level of cholesterol in blood, coronary heart disease, atherosclerosis, disorders of the genitourinary system, for decrease of the blood vessel walls elasticity and muscle activity, in case of damage liver, decreased immunity and excessive body weight, for recreation and better sleep, to prevent the formation of blood clots, to strengthen memory, attention and hearing.

Fiber gently removes hangover. Unlike traditional means used for this purpose, fiber not only quickly amends health, but also absorbs poisons and decay products, causing hangover.

Getting into the stomach, fiber swells and acquires the ability to absorb and excrete toxic substances, toxins, excess cholesterol, bile pigments and ammonia. Due to the presence of pectin is the process of protecting the mucosa from pathogenic and putrefactive microorganisms. Fiber helps more complete digestion and normalizes intestinal microflora. It is recommended for people suffering from overweight and obesity for the normalization and correction of weight. Such people can replace a main meal with fiber, washing it down with big amount of water.

Plant fiber is a unique indispensable product. It is a daily food and healthy substitute for bread, because there is no white flour and yeast in the fiber. It is possible and healthy to add fiber to any dishes.

Getting into the gastrointestinal tract, fiber absorbs everything that has accumulated in our gut for many years. And there is a lot of accumulated: the average person because of layers on the walls of the large intestine, its diameter narrows 2-3 times. These layers (fecal stones, pus, mucus, etc.) are absorbed and removed from the body by fiber. Cleansing the body from toxic substances, fiber removes nitrates which entered the body with fruits and vegetables.

The fiber contains a unique microelement importance of which is only now getting started to be realized by science. It's – silicon, sending and receiving impulses of the brain.

Silicon has the ability to "stick" to itself viruses and pathogens, unusual for a man, which are removed then from the body. The selecting "gluing" ability of colloidal silica systems, is unique. Influenza viruses, hepatitis, arthritis, rheumatism and other microorganisms that cause pathology are sucked into colloidal silicon formations by electrical force of attraction, both in the blood and the GI tract.

Effect of fiber on a man's weight is caused by its effects on metabolism. It is a metabolic disorder



leads to increased weight. Fiber does not burn fat but eliminates the very reason – violation of the metabolic processes in the body. That is why people who have overweight, lose the weight and skinny people on the contrary get the optimal weight.

If you like to eat excessively – do not forget to add to your food fiber: its digestion requires more energy than usual. On average, you will lose 150 calories a day, not applying to this absolutely no effort. Exactly as we lose during 20-minute jog.

Fiber – it's not a medicine, which is no longer taken after recovery. It should become part of your lifestyle – your daily meals (even in small amounts) and your healthy habit. After all, if we inevitably litter the body a little each day, then there must be a means, for every day cleaning it.

Insufficient use of fiber in the diet of people, has led to a significant increase of patients' number with chronic constipation, hemorrhoids, appendicitis, colon cancer, diverticulosis, inflammatory diseases of the colon.

There is evidence of the protective effect of fiber in coronary heart disease, gallstones, diabetes, obesity. Therefore, the use of fiber as a cleaning agent to the body is reasonable as a preventing mean.

Fiber absorbs and retains water and regulates the motor activity of the bowels, intracolonic pressure, creates feeling of satiety, facilitates the acceptability of low-calorie diets, and normalizes the intestinal microflora.

In the bread, during its prolonged heat treatment manufacture, die most vitamins. The content of vitamins in white flour – is negligible. Yeast contained in bread, cause fermentation processes, leading to bowel disease.

Fiber is an alternative to bread – thermal treatment lasts seconds so vitamins virtually don't die and yeast are completely absent. All this makes the fiber healthy substitute for bread, food for sober-minded people aware of imminent retribution for their ignorance in matters of food.

Pectin contained in the plant fiber, called “a medicine against the harmful effects of the city”. Pectins are natural polysaccharides contained in almost all plants.

Pectin reduces cholesterol in the body, contributes to the normalization of metabolic processes, improves peripheral circulation and peristalsis.

However, their most valuable property is that they have the ability to clean alive organisms from harmful substances. And this natural “cleaner” works very effectively, without leaving any “garbage” and thus not disrupting bacterial balance. Pectins remove toxic metal ions, pesticides and radionuclides. Therefore pectins are used as a prophylactic means in a harmful environment saturated with heavy metals, radioactive substances and nitrates.

In the process of digestion pectin turns into acid, which combines with heavy metals and radionuclides, resulting in formation of insoluble salts, which are not absorbed by the mucous of the GI tract and under the influence of fiber, rapidly removes from the body.

Neither pectin nor cellulose can be digested in the stomach, both do not turn into fat deposits, but clean, absorb and excrete everything unnecessary and harmful. It takes 2-3 months to cleanse the body by receiving fiber.

#### PLANT FIBER OF GROUND MILK THISTLE SEEDS



**Milk thistle**

It is recommended to normalize the metabolism, improve the processes of digestion and the functional state of the liver. Milk thistle seeds have a choleretic, anti-sclerotic, wound-healing, regenerating effect, strengthens the walls of blood vessels, protects liver cells from infections and toxins. Milk thistle is used for intoxication and poisoning, diabetes, toxicosis in pregnant women, in case of obesity, immunodeficiency, as well as in cardiovascular diseases and vision loss.

It is recommended to use as a dietary supplement to the diet for diseases of the liver, for the normalization of the GI tract, with reduced immunity, as a source of flavolignans. Presence of silymarin, which has hepatoprotective characteristics determines advisability of using ground milk thistle seeds fiber to improve liver function. E vitamin (tocopherol), contained in the seeds of milk thistle is a powerful natural antioxidant that inhibits the action of free radicals and thus prevents premature aging of the organism.

Milk thistle seeds contain at least 4-6% silymarin, complex polyunsaturated fatty acids – at least 21%, biogenic amines, vitamins: C, E, K, macro and micro elements. Getting into the stomach, fiber from the seeds of milk thistle swells and acquires the ability to absorb and remove toxic substances from the body, toxins, excess cholesterol, bile pigments and ammonia.

Fiber helps to better digestion and normalize gut microflora. It is recommended for people suffering from overweight and obesity for the normalization and correction of weight. Such people can use fiber as substitute of the main meal, washing it down with a big amount of water.

It is possible and useful to add fiber into the main dishes. Plant fiber is the indispensable unique product: a daily meal and healthy substitute for bread, because there is no white flour and yeast in the fiber. Great for breadmaking.

Use for food: adults and children starting from 12 years: 1 teaspoon (5g) twice a day with meal, wash down with water.

Contraindications: individual sensitivity to the particular components.

The benefits of ground milk thistle seeds` fiber

It is recommended to use as a dietary supplement nutrition for liver disease, to improve liver function, for alcoholic liver disease, hepatitis, cirrhosis, fatty liver diabetes, to normalize GI tract, for inflammatory diseases of the sexual sphere, hemorrhoids, diabetes, diseases of the duodenum.

Fiber gently removes hangover. Unlike traditional tools used for this purpose, fiber not only



quickly improves health, but also absorbs poisons and decay products, causing hangover.

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Plant fiber is a unique indispensable product. It is a daily food and healthy substitute for bread, because there is no white flour and yeast in the fiber. It is possible and healthy to add fiber to any dishes.

Getting into the gastrointestinal tract, fiber absorbs everything that has accumulated in our gut for many years. And there is a lot of accumulated: the average person because of layers on the walls of the large intestine, its diameter narrows 2-3 times. These layers (fecal stones, pus, mucus, etc.) are absorbed and removed from the body by fiber. Cleansing the body from toxic substances, fiber removes nitrates which entered the body with fruits and vegetables.

The fiber contains a unique microelement importance of which is only now getting started to be realized by science. It's – silicon, sending and receiving impulses of the brain.

Silicon has the ability to "stick" to itself viruses and pathogens, unusual for a man, which are removed then from the body. The selecting "gluing" ability of colloidal silica systems, is unique. Influenza viruses, hepatitis, arthritis, rheumatism and other microorganisms that cause pathology are sucked into colloidal silicon formations by electrical force of attraction, both in the blood and the GI tract.

Effect of fiber on a man's weight is caused by its effects on metabolism. It is a metabolic disorder leads to increased weight. Fiber does not burn fat but eliminates the very reason – violation of the metabolic processes in the body. That is why people who have overweight, lose the weight and skinny people on the contrary get the optimal weight.

If you like to eat excessively – do not forget to add to your food fiber: its digestion requires more energy than usual. On average, you will lose 150 calories a day, not applying to this absolutely no effort. Exactly as we lose during 20-minute jog.

Fiber – it's not a medicine, which is no longer taken after recovery. It should become part of your lifestyle – your daily meals (even in small amounts) and your healthy habit. After all, if we inevitably litter the body a little each day, then there must be a means, for every day cleaning it.

Insufficient use of fiber in the diet of people, has led to a significant increase of patients' number with chronic constipation, hemorrhoids, appendicitis, colon cancer, diverticulosis, inflammatory diseases of the colon.

There is evidence of the protective effect of fiber in coronary heart disease, gallstones, diabetes, obesity. Therefore, the use of fiber as a cleaning agent to the body is reasonable as a preventing mean.

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Neither pectin nor cellulose can be digested in the stomach, both do not turn into fat deposits, but clean, absorb and excrete everything unnecessary and harmful. It takes 2-3 months to cleanse the body by receiving fiber.

Flour of milk thistle contains whole complex of mineral substances for organism.

The active ingredients of milk thistle have hepatoprotective action: amend the metabolic processes in the liver, increasing its resistance to adverse conditions; accelerate the regeneration of liver cells after its damage, toxic effects and infectious diseases. They interact with free radicals in the liver and convert them into less toxic compounds interrupting the process of lipid peroxidation, prevent the further destruction of cell structures. In damaged hepatocytes they stimulate the synthesis of the structural and functional proteins and phospholipids, stabilize cell membranes.

The structure of the ground milk thistle seeds` fiber

- Fats: polyunsaturated Omega-6, monounsaturated: Omega-9. It should be noted that the fat content of a fiber is small, because the powder is produced from seeds after pressing the oil;
- mono- and disaccharides;
- Carbohydrates – Sources of “ quickboost of energy “;
- Flavonoids: Quercetin;
- Flavolignans: Silymarin;
- Carotenoids;
- Chlorophyll;
- Amino acids: histidine, tyramine, alkaloids;
- vitamins: B vitamins, D vitamin, E vitamin, K vitamin;
- Macro and micro elements: aluminum, boron, vanadium, iron, potassium, calcium, magnesium, manganese, copper, selenium, zinc, chromium, fiber.

The benefits of ground milk thistle seeds` fiber in the medical treatment and prevention of

diseases

Regularly used, ground milk thistle seeds` fiber has bactericidal, choleric, diuretic, immune-stimulating, wound healing, analgesic and anti-allergic effect on the human`s body. This product has been successfully used as a prophylactic agent in the complex treatment of the following diseases:

**Diseases of the cardiovascular system.** The active components of ground milk thistle seeds` fiber have very beneficial effect on the cardiovascular system as a whole. They are used as regulators of heart rate`s strength and rhythm. Some components of the product if regularly gotten into the blood may reduce the “bad” cholesterol in the blood, preventing the formation of atherosclerotic plaque on blood vessel walls. Regularly using ground milk thistle seeds` fiber as food, you render your blood vessels and heart priceless assistance, because your blood vessels stay clean, their elasticity increases, reduces burden of heart, blood pressure reduces too.

Regular use of the product is recommended as part of complex treatment of the following diseases of the cardiovascular system: hypertension, atherosclerosis, coronary heart disease, varicose veins, as well as for variety of inflammatory diseases of the heart and blood vessels. It is advisable to include fiber from the milk thistle seeds in the diet of quite healthy people as a preventive means.

**Anemia.** The ground milk thistle seeds` fiber is also useful for hematopoiesis. It contains a combination of vitamins, trace elements, and also flavolignans and flavonoids, which take an active part in hemoglobin synthesis in the human`s body.

**Diseases of the digestive system.** The ground milk thistle seeds` fiber, if regularly used, has a beneficial effect on the digestive system. The active components of this product can enhance the metabolism in the liver, builds up your organ resistance to the adverse effects of toxins, bacterial and viral infections, alcohol, also promotes the regeneration of damaged liver cells. This fiber has a strong choleric action.

The ground milk thistle seeds` fiber improves intestinal motility, normalizes its balance of beneficial microflora. Having a wound-healing and anti-inflammatory action, this product is useful if there is a presence of erosive-ulcerative lesions of the stomach and intestines` mucous membranes.

It is recommended to use ground milk thistle seeds` fiber in the complex treatment and as prevention of the following diseases: gastritis, gastric ulcer, gastroduodenitis, pancreatitis, cholelithiasis, cholecystitis, choledocholithiasis, cholangitis, hepatic steatosis, hepatitis, liver cirrhosis, duodenal ulcers, colitis, enterocolitis constipation, including chronic, dysbacteriosis. To restore healthy intestinal microflora recommend the use of fiber from the seeds of milk thistle during reception of antibiotics and immediately after a course of antibiotic treatment.

**Diseases of the thyroid gland and spleen.** The ground milk thistle seeds` fiber contains a complex of substances necessary for normal functioning of vital organs such as the spleen and thyroid.

**Respiratory diseases.** It is recommended to use the ground milk thistle seeds` fiber in the complex treatment of laryngitis, tonsillitis, pharyngitis, bronchitis, asthma, pneumonia. In diseases of the throat, along with its intake, it may be recommended rinsing with decoctions and infusions of milk thistle seeds.

**Diseases of the joints.** The milk thistle seeds` fiber contains flavonoids, flavolignans, a complex of natural vitamins and minerals. Regular use of this product is able to fight off inflammation in the joints, reduce pain, in addition it stimulates the natural production of collagen, which is needed for the construction of the articular cartilage, synovial joints and ligaments, and promotes the recovery of bone tissue at fractures.

It is recommended to use milk thistle seeds` fiber both in complex treatment and prevention of the following diseases: arthritis, arthrosis, gout, rheumatoid arthritis, plexitis, sciatica, neuralgia,

neuritis. This product is widely used in the treatment of injuries, fractures, bruises and sprains.

**Diseases of the urogenital system.** Folk medicine has been using the seeds and fiber of milk thistle in the treatment of prostatitis, cystitis, urethritis, kidney disease, diseases of the bladder at all times. Components of this product have anti-inflammatory, antibacterial and diuretic effects.

**Eye Diseases.** The thistle seeds fiber is composed of a (B, E, D) complex vitamins, micronutrients (zinc, selenium, manganese, magnesium, copper, chrome), and carotenoids, which are converted in the body into vitamin A.

It is recommended to include milk thistle seeds` fiber in the diet as a source of natural substances necessary for the functioning of the organs of vision. 2-3 tsp of such fiber cover daily need of these substances.

**Metabolic diseases.** It may be recommended for use in diabetes, as fiber, which exactly is the product, prevents rapid flow of glucose into the blood, and the whole complex of vitamins, minerals and dietary fiber substances of milk thistle seeds are able to regulate the process of natural production of insulin by the pancreas.

**It is recommended to use this product in the fight against overweight and obesity,** as the milk thistle seeds` fiber helps to normalize lipid metabolism, improves liver function in general, cleanses the body of accumulated toxins, and stimulates the bowels.

Of course, the milk thistle seeds` fiber is not a medicine, it is first of all food, but the food which is very rich in beneficial to human nutrients. Eating it is advisable also to absolutely healthy people. It is especially recommended to use milk thistle seeds` fiber in the diet of lactating mothers, weakened after a serious illness or surgery, during recovery period, living in big cities or environmentally sensitive areas, employed in manufactures with harmful working conditions at various poisoning.

**It is very healthy to use milk thistle seeds` fiber for people undergoing radiation or chemotherapy.** In this case, it is recommended to use tea (infusion) of such fiber. It is not only supports your body, but also strengthen the effect of radiation therapy.

**The milk thistle seeds` fiber can help in the fight against excess weight.** It perfectly cleanses the body of toxins, toxins, salts of heavy metals, normalizes the intestine, regulates lipid metabolism and helps to burn fat, improves skin, removes excess fluid from the body. You want to have a fine figure – milk thistle seeds` fiber is your best helper!

**The milk thistle seeds` fiber is also used in treatment of alcohol and drug addiction, as well as smoking.**

The use of milk thistle seeds` fiber

**As therapeutic and prophylactic purpose** it is recommended to take milk thistle seeds` fiber 1 tbsp. 20 minutes before a meal three times a day. At the same time it should be thoroughly chew, washed down with 1 glass of warm water. The course of treatment 40-50 days, followed by a break, if necessary, repeat the course in 2-3 weeks.

During the course of radiation or chemotherapy it is recommended to drink herbal tea. Infuse 1 tsp fiber in 1 cup of boiling water.

**The use of milk thistle seeds` fiber in cooking.** Milk thistle seeds` fiber – is extremely rich in mineral substances food. Of course, it can and also must be used as food. The main condition – the percentage of fiber in cooking should not exceed 20%.

The fiber of the milk thistle seeds has a fine texture and a pleasant distinctive taste. Same as any fiber it can be used in baking bread, pancakes, thick pancakes. This fiber can be added to the dough for meat dumplings, dumplings, biscuits or waffles. It goes well with all kinds of porridge. It also makes



sense to add fiber into sauces, croquettes or salads.

This product will help you to diversify your menu, but, what is more important, it will make cooked meal the healthy one!

#### **Contraindications to the use of milk thistle seeds` fiber**

The main contraindication to the use of milk thistle seeds` fiber is personal intolerance to the product. It should be refrained from by pregnant women and children under 12 years.

Patients with cholelithiasis and cholecystitis in the acute stage should consult your doctor before the regular use of milk thistle seeds` fiber.

#### **PLANT FIBER OF GROUND FLAX SEEDS**

It is recommended to use as a dietary supplement to the diet. It normalizes the digestive tract, it helps to reduce cholesterol level in the blood, improves the immune system, used to reduce the likelihood of blood clots, improve the functioning of the liver, to prevent diseases of the thyroid gland as an indispensable element in the diet of pregnant women with diabetes mellitus.

The most important components of flax seeds` fiber are indispensable highest fatty acids: Omega-3(34.84%); OMEGA-6 (19.21%); Omega-9 (22.82%). In diabetes Omega-3 improves the action of insulin and protects the body from the emergence and progress of diabetes. This not only improves the perception of insulin, but also decreases blood cholesterol.

Fiber provides work of the entire GI tract. Absorbing all the excess that has accumulated in the body for many years, fiber has a cleansing effect to our body.

Fiber helps more full digestion and normalizes intestinal microflora. Fiber is recommended for people suffering from overweight and obesity for the normalization and correction of weight. Such people can replace main meal with fiber, washing down it with big amount of water.

It is both possible and healthy to add fiber to any food. Plant fiber is the indispensable unique product: a daily meal and healthy substitute for bread, because there is no white flour and yeast in the fiber. Great for breading.

Use: adults and children from 12 years: 1 teaspoon (5g) twice a day with meals, washing it down with water.

Contraindications: individual sensitivity to the particular components.

The benefits of ground flax seeds` fiber

It is recommended to use as a dietary supplement to the diet. It normalizes the digestive tract, it helps to reduce cholesterol level in the blood, improves the immune system, improves liver function, reduces the likelihood of blood clots, is the prevention of diseases of the thyroid gland and an indispensable element in the diet of pregnant women. The most important components of flax seeds fiber are irreplaceable higher fatty acids: Omega-3 (34.84%), Omega-6 (19.21%), and Omega-9 (22.82%). In diabetes Omega-3 improves the action of insulin and protects the body from the emergence and development of diabetes. This not only improves the perception of insulin, but also decreases blood cholesterol.

Fiber gently removes hangover. Unlike traditional tools used for this purpose, fiber not only quickly improves health, but also absorbs poisons and decay products, causing hangover.

Getting into the stomach, fiber swells and acquires the ability to absorb and remove toxic substances from the body, toxins, excess cholesterol, bile pigments and ammonia.

Fiber helps to better digestion and normalize gut microflora. It is recommended for people suffering from overweight and obesity for the normalization and correction of weight. People who are

overweight can use it as substitute of the main meal, washing it down with a lot of water.

Plant fiber is the indispensable unique product: a daily meal and healthy substitute for bread, because there is no white flour and yeast in the fiber. It is possible and useful to add fiber into the main dishes.

Getting into the gastrointestinal tract, fiber absorbs everything that has accumulated in our gut for many years. And there is a lot of accumulated: the average person because of layers on the walls of the large intestine, its diameter narrows 2-3 times. These layers (fecal stones, pus, mucus, etc.) are absorbed and removed from the body by fiber. Cleansing the body from toxic substances, fiber removes nitrates which entered the body with fruits and vegetables.

The fiber contains a unique microelement importance of which is only now getting started to be realized by science. It's – silicon, sending and receiving impulses of the brain. Silicon has the ability to "stick" to itself viruses and pathogens, unusual for a man, which are removed then from the body. The selecting "gluing" ability of colloidal silica systems, is unique. Influenza viruses, hepatitis, arthritis, rheumatism and other microorganisms that cause pathology are sucked into colloidal silicon formations by electrical force of attraction, both in the blood and the GI tract.

Effect of fiber on a man's weight is caused by its effects on metabolism. It is a metabolic disorder leads to increased weight. Fiber does not burn fat but eliminates the very reason – violation of the metabolic processes in the body. That is why people who have overweight, lose the weight and skinny people on the contrary get the optimal weight.

If you like to eat excessively – do not forget to add to your food fiber: its digestion requires more energy than usual. On average, you will lose 150 calories a day, not applying to this absolutely no effort. Exactly as we lose during 20-minute jog.

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Insufficient use of fiber in the diet of people, has led to a significant increase of patients' number with chronic constipation, hemorrhoids, appendicitis, colon cancer, diverticulosis, inflammatory diseases of the colon.

There is evidence of the protective effect of fiber in coronary heart disease, gallstones, diabetes, obesity. Therefore, the use of fiber as a cleaning agent to the body is reasonable as a preventing mean.

Fiber absorbs and retains water and regulates the motor activity of the bowels, intracolonic pressure, creates feeling of satiety, facilitates the acceptability of low-calorie diets, and normalizes the intestinal microflora.

In the bread, during its prolonged heat treatment manufacture, die most vitamins. The content of vitamins in white flour – is negligible. Yeast contained in bread, cause fermentation processes, leading to bowel disease.

Fiber is an alternative to bread – thermal treatment lasts seconds so vitamins virtually don't die and yeast are completely absent. All this makes the fiber healthy substitute for bread, food for sober-minded people aware of imminent retribution for their ignorance in matters of food.

Pectin contained in the plant fiber, called "a medicine against the harmful effects of the city". Pectins are natural polysaccharides contained in almost all plants.

Pectin reduces cholesterol in the body, contributes to the normalization of metabolic processes, improves peripheral circulation and peristalsis. However, their most valuable property is that they have the ability to clean alive organisms from harmful substances. And this natural "cleaner" works very

effectively, without leaving any “garbage” and thus not disrupting bacterial balance. Pectins remove toxic metal ions, pesticides and radionuclides. Therefore pectins are used as a prophylactic means in a harmful environment saturated with heavy metals, radioactive substances and nitrates.

In the process of digestion pectin turns into acid, which combines with heavy metals and radionuclides, resulting in formation of insoluble salts, which are not absorbed by the mucous of the GI tract and under the influence of fiber, rapidly removes from the body.

Neither pectin nor cellulose can be digested in the stomach, both do not turn into fat deposits, but clean, absorb and excrete everything unnecessary and harmful. It takes 2-3 months to cleanse the body by receiving fiber.

#### PLANT FIBER OF GROUND SESAME SEEDS

It is recommended to use as a dietary supplement to the diet for the normalization of the GI tract, as an additional source of plant protein, to reduce blood sugar level, to reduce the likelihood of blood clots, to speed up blood clotting, liver diseases, locomotive, nervous and hematopoietic systems, if the level of cholesterol in the blood high. Getting into the stomach, fiber swells and acquires the ability to absorb and remove toxic substances from the body, toxins, excess cholesterol, bile pigments and ammonia.

Fiber helps to better digestion and normalize gut microflora. It is recommended for people suffering from overweight and obesity for the normalization and correction of weight. People who are overweight can use it as substitute of the main meal, washing it down with a lot of water.

It is both possible and healthy to add fiber to any food. Plant fiber is the indispensable unique product: a daily meal and healthy substitute for bread, because there is no white flour and yeast in the fiber. Great for breadmaking.

Use: adults and children from 12 years: 1 teaspoon (5g) twice a day with meals, washing it down with water.

Contraindications: individual sensitivity to the particular components.

The benefits of ground sesame seeds` fiber

Ground flax seeds` fiber is both a product of high biological value and special dietary use. It is well absorbed by the body and nourishes the valuable nutrients.

It is recommended to use as a dietary supplement to the diet for the normalization of the GI tract, as an additional source of plant protein, to reduce blood sugar level, to reduce the likelihood of blood clots, to speed up blood clotting, liver diseases, locomotive, nervous and hematopoietic systems, if the level of cholesterol in the blood high, anemia, internal bleeding, to accelerate blood clotting, for hyperthyroidism, for venous congestion.

Fiber gently removes hangover. Unlike traditional tools used for this purpose, fiber not only quickly improves health, but also absorbs poisons and decay products, causing hangover.

Getting into the stomach, fiber swells and acquires the ability to absorb and remove toxic substances from the body, toxins, excess cholesterol, bile pigments and ammonia. Fiber helps to better digestion and normalize gut microflora. It is recommended for people suffering from overweight and obesity for the normalization and correction of weight. People who are overweight can use it as substitute of the main meal, washing it down with a lot of water.

Plant fiber is the indispensable unique product: a daily meal and healthy substitute for bread, because there is no white flour and yeast in the fiber. It is possible and useful to add fiber into the main dishes.

Getting into the gastrointestinal tract, fiber absorbs everything that has accumulated in our gut for many years. And there is a lot of accumulated: the average person because of layers on the walls of the large intestine, its diameter narrows 2-3 times. These layers (fecal stones, pus, mucus, etc.) are absorbed and removed from the body by fiber. Cleansing the body from toxic substances, fiber removes nitrates which entered the body with fruits and vegetables.

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There is evidence of the protective effect of fiber in coronary heart disease, gallstones, diabetes, obesity. Therefore, it is well-grounded to use the fiber as a cleaning agent to the body for prevention.

Fiber absorbs and retains water and regulates the motor activity of the intestine, intracolonic pressure, creates a feeling of satiety, makes it easier to go on low-calorie diets, and normalizes the intestinal microflora.

In the bread, during its prolonged heat treatment manufacture, die most vitamins. The content of vitamins in white flour – is negligible.

Yeast contained in bread, cause fermentation processes, leading to bowel disease.

Fiber is an alternative to bread – thermal treatment lasts seconds so vitamins virtually don't die and yeast are completely absent. All this makes the fiber healthy substitute for bread, food for sober-minded people aware of imminent retribution for their ignorance in matters of food.

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In the process of digestion pectin turns into acid, which combines with heavy metals and radionuclides, resulting in formation of insoluble salts, which are not absorbed by the mucous of the GI tract and under the influence of fiber, rapidly removes from the body.

Neither pectin nor cellulose can be digested in the stomach, both do not turn into fat deposits, but clean, absorb and excrete everything unnecessary and harmful. It takes 2-3 months to cleanse the body by receiving fiber.

The structure of the ground flax seeds` fiber

**Fats:**

- Polyunsaturated: Omega-3, Omega-6, Omega-9;
- Saturated: palmitic, stearic acids;

**Vitamins:**

- B vitamins: Vitamin B1, Vitamin B2, Vitamin B3, Vitamin B5, Vitamin B6, Vitamin B9;
- Vitamin E;
- Vitamin T;

**Amino acids:**

- essential: Valine, Isoleucine, Leucine, Lysine, Threonine, Tryptophan;
- conditionally essential amino acids – amino acids which can be synthesized by the human`s body but with the condition that some amount of this amino acid the body gets with the food. Therefore, these amino acids are also often defined as indispensable: Arginine, Histidine, Tyrosine, Cysteine;

- nonessential: Alanine, Aspartic acid, Glycine, Glutamic Acid, Serine, Carotenoids Sesamol, Sesamin,

**Phytosterols:**

- Beta-sitosterol;

**Micro and macro elements:**

- Iron, Potassium, Calcium, Magnesium, Manganese, Copper, sodium, Selenium, Phosphorus, Zinc;

**Rough fiber:**

- In combination with pectin, rough fiber normalizes the balance of healthy microflora, stimulates intestinal motility and, ultimately, helps to cleanse the body of toxins and salts of heavy metals. It helps eliminate this extremely unpleasant thing as constipation.

**Pectins.**

Especially it is necessary to note the amount of some beneficial components to the human body present in the fiber of ground sesame seeds. It contains in large amounts calcium, zinc and magnesium, which are essential for normal functioning of all organs of the body. Moreover, the content amount of calcium in fiber from ground sesame seeds – “World Champion.”

The use of fiber from ground sesame seeds in the treatment and prevention of diseases

Rich composition of ground sesame seeds`s fiber, no doubts, should be used in the treatment of many diseases, and in order to prevent them.

**Diseases of the gastrointestinal tract.** The whole complex of substances contained in the ground sesame seeds`s fiber (histidine, vitamin E, carotenoids, minerals zinc and magnesium, sesamin, sesamolin, sesamol and sezaminol) has a pronounced wound-healing and anti-inflammatory effect on the mucous membrane of the stomach and intestines.



Organic acids and pectins which are abundant in ground sesame seeds` fiber, help to improve digestion and increase intestinal motility, normalizes the balance of beneficial microflora in it.

The amino acids arginine, methionine and threonine have a hepatoprotective effect and actively prevent fatty liver.

Moreover, ground sesame seeds`s fiber has antiparasitic action, and can be used in the diet in the treatment of helminth infections and its regular consumption is an excellent preventive means, which is preventing the emergence of parasites.

Also this wonderful fiber will help cleanse your body of toxins that have accumulated over the years in the human`s body and are the cause of many ailments!

It is evident from above-listed that ground sesame seeds` fiber should be included in the diet of people suffering from the following diseases of the gastrointestinal tract: gastritis, colitis, enterocolitis, gastric ulcer and duodenal ulcer, pancreatitis, cholangitis, cholecystitis, fatty liver, cirrhosis, alcoholic hepatitis, frequent and chronic constipation.

**Diseases of the cardiovascular system.** The ground sesame seeds` fiber contains complex substances which favorably affect both the heart and blood vessels. It is primarily the polyunsaturated and monounsaturated fatty acids, amino acids arginine and histidine, phytosterols, sesamin, and trace nutrients potassium, magnesium, and manganese. These active components are perfectly nourish the heart muscle, are regulators of rhythm and force of heart contractions, have a pronounced vasodilating effect, help to reduce cholesterol level in blood, actively prevent the appearance of blood clots and atherosclerotic plaques, as well as strengthen the walls of blood vessels.

It is recommended to use regularly ground sesame seeds` fiber in the diet of people suffering from hypertension, atherosclerosis, coronary heart disease, arrhythmia and tachycardia, inflammatory diseases of the heart and blood vessels, as well as for those who underwent a stroke or heart attack.

**Blood diseases.** The distinguishing feature of sesame seeds is the presence in its composition of vitamin T, responsible for blood clotting in the human`s body.

Amino acids Histidine and Tryptophan are involved in the process of hematopoiesis.

It is recommended to use ground sesame seeds` fiber in the diet of patients with anemia, hemophilia, hemorrhagic diathesis, idiopathic thrombocytopenic purpura, idiopathic thrombocytopenic purpura, essential thrombocytopenia.

**Diseases of the locomotor system.** Ground sesame seeds` fiber is rich in calcium, magnesium, phosphorus, i.e, simply necessary for the formation of bone and cartilage tissue trace elements. Estrogen phytosterols of this fiber prevent bone destruction (resorption) and the amino acid leucine, lysine, methionine, threonine, phenylalanine and promote natural synthesis of collagen in the human body, and vitally important for our body, including the locomotor system, the protein.

It is recommended to include ground sesame seeds` fiber regularly in the diet of patients with almost all diseases of bones, joints and spine: arthritis, osteoarthritis, osteoporosis, osteoarthritis, gout, as well as for various injuries: sprains, bruises, fractures.

**Metabolic disorders.** Polyunsaturated fatty acids, arginine and sesamin contained in the ground sesame seeds` fiber, promote burning of the subcutaneous fat. Isoleucine, sesamin, magnesium, manganese and zinc are actively involved in the synthesis of insulin by the pancreas. Regular presence of ground sesame seeds` fiber is recommended in the diet of patients with diabetes and obesity.

**Memory impairment, weakening of attention, reduced mental and physical endurance, stress, depression, insomnia.** Again, you can be helped out by ground sesame seeds` fiber. It has a complex of amino acids, vitamins and minerals that can increase efficiency, improve memory, eliminate the effects

of trauma, will help to restore healthy sleep.

**Diseases of the female genitalia.** The fiber composition of ground sesame seeds contains phytosterols estrogen, vitamin B6, sesamin, magnesium and zinc, promoting the normalization of hormonal balance. Additionally, fiber of ground sesame seeds has also anti-inflammatory effects.

We recommend using ground sesame seeds` fiber in the diet of women suffering from inflammatory diseases of the female reproductive organs, as well as those who are experiencing discomfort during the premenstrual or menopausal period. This product is very useful for pregnant women and nursing mothers, because it contains the necessary for both mother and child vitamins, minerals, amino acids, fatty acids.

**Diseases of male genital.** The fiber composition of ground sesame seeds contains beta-sitosterol, vitamin E, as well as trace elements manganese, selenium, zinc. Together, these active substances can have a beneficial impact on the prostate, improve erections, as well as normalize the process of sperm production and improve its quality.

It is recommended to include ground sesame seeds` fiber in the diet of everyone, without exception, men, and especially to those who suffer from prostatitis, BPH, male infertility, impotence...

**Diseases of the excretory organs.** Regular consumption of foods containing ground sesame seeds` fiber is healthy for people suffering from such diseases of the excretory system as nephritis and pyelonephritis, urolithiasis, cystitis and urethritis.

Nevertheless ground sesame seeds` fiber is not a medicine, but a natural source of essential substances for human`s body. Therefore, it is possible and even necessary to include it in the diet of quite healthy people. This will serve as an excellent prevention of many diseases. And both for the growing child`s body and aging, weakening body the ground sesame seeds` fiber will be super helpful!

#### **The use of the ground sesame seeds` fiber**

For the treatment and prevention of diseases listed above, it is sufficiently to include in the daily diet just 1-2 tablespoons of ground sesame seeds` fiber. It can be used for baking various baked goods, as a supplement to all kinds of porridges, salads, side dishes. This fiber can serve as excellent breading for cutlets, fish or meat. It makes sense to try it as a thickener for sauces and gravies.

Ground sesame seeds` fiber has a delicate nutty flavor and very pleasant aroma. Perhaps it will add the zest to usual dishes which will make them taste like a true masterpiece!

#### **Contraindications to the use of the ground sesame seeds` fiber**

Regular consumption of the ground sesame seeds` fiber in food contraindicated for patients with high blood clotting, varicose veins, thrombosis, and thrombophlebitis. But sometimes you can still indulge in this exquisite product.

#### **VEGETABLE FIBER OF RYE MALT**

Rye malt is valued at most for high content of protein and full composition of 8 essential amino acids including lysine, threonine, and valine that stimulate protein metabolism in the human body as well as facilitate the growth of muscles and bones, oligopeptides; easily digestible polysaccharides, polyunsaturated fatty acids; minerals (phosphorus, potassium, magnesium, iron, manganese, calcium, fluorine, iodine, copper, selenium, and zinc); vitamins (A, E, C, B1, B2, B3, B5, B6, B9, F), and phospholipides that are important for the formation of new cells membranes, enzymes, phytohormones, and other biologically active additives.

All these components compensate for a shortcoming of nutritional deficiency, have high biological activity, support normal functioning of all body systems, relieve the effects of stress, totally



strengthen the body, support the immune system, stimulate hematopoiesis, increase hemoglobin level, reduce cholesterol level, and noticeably improve skin and hair condition. The substances contained in rye malt positively affect the biochemical processes in the working muscles. Meanwhile, the muscle energy is spent more economically that is especially important at long-time and high loads, at working under extreme conditions, and at various pathological conditions; it is also important for building-up sportsmen's muscle mass. The substances contained in rye malt are important for one and all, particularly for children and aged people, pregnant women and nursing mothers, victims of the Chernobyl disaster, sportsmen, and those people engaged into active mental and physical work.

Regular consumption of rye malt helps to normalize the acid-alkaline balance in gastrointestinal tract, to improve digestion, to facilitate the most effective carbohydrates uptake, and to increase nutrients absorption in the intestine. Rye malt is a perfect breeding ground for useful bacterial intestinal flora. It prevents calculi formation in gall bladder, bile duct, and liver; actively facilitates intestinal peristalsis, and helps to remove wastes and toxins from the body.

Polyunsaturated fatty acids OMEGA-3 and OMEGA-6 contained in rye malt reduce cholesterol level in the blood and prevent the deposition of atherosclerotic plaques on the vessel walls. Rye malt contains a high level of vitamin E, which normalizes the blood pressure level and actively prevents thrombosis. Like other vitamins-antioxidants A and C contained in rye malt, this vitamin perfectly strengthens and protects the vessel walls and reduces capillary permeability. Rye malt is rich in potassium and magnesium that are very important for the heart muscle function. Therefore, rye malt is especially useful for those people suffering from atherosclerosis, hypertension, ischemic heart disease, and other diseases of cardio-vascular system. It is also used for prevention of infarctions and strokes.

The rye malt is a valuable diabetic product.

The substances contained in rye malt slow down the fats and carbohydrates absorption, stabilize the blood sugar level, while the mineral substances contained in rye malt are very important for regulation of the natural insulin production by the pancreas.

Consumption of rye malt prevents the occurrence and the development of cholelithiasis. It is very useful for those suffering from dysbacteriosis, hypoacid gastritis, enterocolitis, duodenitis, and chronic constipations.

Thanks to vitamins-antioxidants contained in rye malt, it has a beneficial effect on the women body throughout pregnancy and further childbirth. It also helps to enhance lactation, and improves the quality and taste of breast milk.

Rye malt is very useful for women suffering from pains during premenstrual period and climacterium.

Regular consumption of rye malt that is rich in substances improving sex hormones synthesis (amino acids, zinc, vitamins E, B3, B6) helps men to meet challenges related to prostatopathy, to improve potency, and to prevent the development of prostate adenoma and its degeneration.

Regular consumption of rye malt prevents rectal cancer and colon cancer. Once in the intestine, this vegetable fiber swells and acquires the ability to sorb and remove from the body toxins, wastes, excessive cholesterol, ammonia, and bile pigments. Soaking up all excessive substances that have accumulated over the years, the fiber cleanses your body.

You can add rye malt to any first or second course, porridge, vegetable caviar, side dish, vegetable or fruit salad, milk products, and vegetable puree. Also use it for cooking buns and bread. It is perfect for au gratin.

Healthy Benefits of Rye Malt Vegetable Fiber



Rye malt is valued at most for high content of protein and full composition of 8 essential amino acids including lysine, threonine, and valine that stimulate protein metabolism in the human body as well as facilitate the growth of muscles and bones, oligopeptides, easily digestible polysaccharides (glucose, fructose, maltose, and dextran), polyunsaturated fatty acids, minerals (phosphorus, potassium, magnesium, iron, manganese, calcium, fluorine, iodine, copper, selenium, zinc), vitamins (A, E, C, B1, B2, B3, B4, B6, B0, P), and phospholipides that are important for the formation of new cells membranes, enzymes, phytohormones, and other biologically active additives.

All these components compensate for a shortcoming of nutritional deficiency, have high biological activity, support normal functioning of all body systems, relieve the effects of stress, totally strengthen the body, support the immune system, stimulate hematopoiesis, increase hemoglobin level, reduce cholesterol level, and noticeably improve skin and hair condition.

The substances contained in rye malt positively affect the biochemical processes in the working muscles. Meanwhile, the muscle energy is spent more economically that is especially important at long-time and high loads, at working under extreme conditions, and at various pathological conditions; it is also important for building-up sportsmen's muscle mass. The substances contained in rye malt are important for one and all, particularly for children and aged people, pregnant women and nursing mothers, victims of the Chernobyl disaster, sportsmen, and those people engaged into active mental and physical work.

#### **Rye Malt Influence on Different Systems of the Human Body**

Regular consumption of rye malt helps to normalize the acid-alkaline balance in gastrointestinal tract, to improve digestion, to facilitate the most effective carbohydrates uptake, and to increase nutrients absorption in the intestine. Rye malt is a perfect breeding ground for useful bacterial intestinal flora. It prevents calculi formation in gall bladder, bile duct, and liver; actively facilitates intestinal peristalsis, and helps to remove wastes and toxins from the body.

Consumption of rye malt prevents the occurrence and the development of cholelithiasis. It is very useful for those suffering from dysbacteriosis, hypoacid gastritis, enterocolitis, duodenitis, and chronic constipations caused by dysbacteriosis or colitis.

#### **Regular consumption of rye malt prevents rectal cancer and colon cancer.**

Polyunsaturated fatty acids OMEGA-3, OMEGA-6, and other components contained in rye malt reduce cholesterol level in the blood and prevent deposition of atherosclerotic plaques on the vessel walls. Rye malt contains a high level of vitamin E, which normalizes the blood pressure level and actively prevents thrombosis. Like other vitamins-antioxidants A and C contained in rye malt, this vitamin perfectly strengthens and protects the vessel walls and reduces capillary permeability.

Rye malt is rich in potassium and magnesium that are very important for the heart muscle function. Therefore, rye malt is especially useful for those people suffering from atherosclerosis, hypertension, ischemic heart disease, and other diseases of cardio-vascular system. It is also used for prevention of infarctions and strokes.

#### **Rye malt is a valuable diabetic product**

The substances contained in rye malt slow down the fats and carbohydrates absorption, stabilize the blood sugar level, while the mineral substances contained in rye malt are very important for regulation of the natural insulin production by the pancreas.

Thanks to vitamins-antioxidants contained in rye malt, it has a beneficial effect on the women body throughout pregnancy and further childbirth. It also helps to enhance lactation, and improves the quality and taste of breast milk.

Rye malt, thanks to the high content of phytohormones and vitamin E, is very useful for women suffering from pains during premenstrual period and climacterium.

Regular consumption of rye malt that is rich in substances improving sex hormones synthesis (amino acids, zinc, and vitamins E, B3, B6) helps men to meet challenges related to prostatopathy, to improve potency, and to prevent the development of prostate adenoma and its degeneration.

Rye malt is recommended for the prevention and complex treatment of male and female infertility

Regular consumption of rye malt prevents the development of many diseases including tumorous ones. It also strengthens the immune system and restores energetic tone of the body (it is especially useful for patients who had experienced serious diseases, complex operations as well as those suffering from exhaustion).

#### **Directions For Use**

You can add rye malt to any first or second course, porridge, vegetable caviar, side dish, vegetable or fruit salad, milk products, and vegetable puree. Also use it for cooking buns and bread.

Recommended amount: 1–3 tablespoons per day.

**Counterindications:** Any cereal malt is counterindicated at acute phase of the following diseases: chronic pancreatitis, chronic cholecystitis, hypoacid gastritis, duodenal ulcer, and gastric ulcer.

#### **VEGETABLE FIBER OF CORN GERMS**

It is recommended to take this fiber as a dietary supplement to the food ration so that to normalize digestion and gastrointestinal tract functioning, to reduce the blood sugar level, to prevent thrombosis, to normalize metabolism and cholesterol level in the blood, to enhance the immune system and body defenses, to improve overall condition of the body, to prevent cardio-vascular diseases, to normalize prostate gland functioning, to release toxins from the body, to prevent colon cancer and dysbacteriosis, and to normalize hormonal balance.

This fiber helps to lose weight, to reduce obesity, to normalize weight, and to facilitate active longevity.

Vitamins contained in corn germs (A, B1, B2, B6, PP, C, K) improve the skin condition, speed up tissue regeneration, improve the growth of hair and nails. Also, they are essential for preserving eyesight and the immune system. Polyunsaturated fatty acids OMEGA-3 and OMEGA-6 contained in corn germs increase the body resistance to infectious diseases, and prevent the development of atherosclerosis.

It is recommended to take this fiber at high physical and psychoemotional loads as an additional resource of food fibers, macro- and microelements, protein, and vitamins. Also, it is taken to provide optimal dietetic conditions of functioning of digestive system, liver, and pancreas; to normalize motor function of the intestine, to support normal functioning of cardio-vascular system, to prevent atherosclerosis, obesity, haemorrhoids, thrombophlebitis, ischemic heart disease and diabetes.

This fiber cleanses the body from bile acids and toxins, releases nitrates that enter the body when eating fruits and vegetables.

The fiber of corn germs is rich in energy; it is an excellent antioxidant and radioprotector.

It also facilitates better digestion and normalizes the intestine microflora. The fiber cleanses your body by means of soaking up all excessive substances that have accumulated over the years. Once in the intestine, this fiber swells and acquires the ability to sorb and remove from the body toxins, wastes, excessive cholesterol, ammonia, and bile pigments.

You can add the fiber to any first or second course, porridge, vegetable caviar, vegetable or fruit



salad, quark, milk, kefir (butter milk), yoghurt, juice, fruit puree, and dessert. Also use it to cook buns and bread.

Fiber of corn germs is very useful and can replace bread as it contains no yeast and white flour.

#### Health Benefits of Vegetable Fiber of Corn Germs

Corn germ is a valuable nature gift that has high biological and food value.

All energetic and physiological useful properties are mainly contained in corn germs. Corn germs contain a high number of phosphatides, carotin, a complex of water-soluble and fat-soluble vitamins (E, A, B1, B2, B6, PP, C, K), macro- and microelements (calcium, potassium, magnesium, phosphorus, iron, fluorine, iodine, molybdenum, copper, etc.), and essential amino acids (linolic, oleic, palmitinic, stearinic, myristinic, hexadecylenic, and arachic). These acids are important for metabolism and regulation of cholesterol exchange in the human body. They prevent deposition of cholesterol on the vessel walls. Also, they prevent thrombosis at coronary atherosclerosis. Polyunsaturated fatty acids OMEGA-3 and OMEGA-6 contained in fiber of corn germs increase the body resistance to infectious diseases, and release excess cholesterol from the body preventing thereby the development of atherosclerosis.

Vitamin E (a vitamin of youthfulness) contained in fiber of corn germs lasts the life of red blood cells that transfer the oxygen. It helps the body to absorb one more important vitamin A, and has anticarcinogenic property. Vitamin E is a natural antioxidant. It prevents aging of the body and rejuvenates it starting to act at the cellular level. Vitamin E strengthens the immune and muscle system of the human body, and restores the potency. The number of vitamin A contained in fiber of corn germs is 15 times more than in beans; and 5 times more than in peas.

This fiber restores the energy balance, regulates the most important body functions, helps to resist to serious diseases and adverse environmental conditions (radiation and chemical pollution, stresses), has rejuvenatory and toning effect on the human body, normalizes metabolism, eliminates from chronic fatigue symptoms, and enhances the body defenses.

The fiber has a high level of carotinoids that have antioxidant properties and protect the body from the free radicals attack. Regular consumption of this fiber prevents the occurrence of new growth, strengthens capillaries, improves skin and face condition, and slows down the aging of the body.

#### **Fiber of Corn Germs to Lose Weight**

As it is known, the fiber helps to optimize intestine functions, peristalsis in particular. It cleanses the body from harmful substances and normalizes stool.

The fiber improves digestion and speeds up the movement of intestinal wastes in gastrointestinal tract.

When consuming fiber of corn germs, the body sends the signal of hunger more later as it processes a rich amino acid complex contained in corn germs. It is very useful for those who want to lose weight. Fiber of corn germs has a beneficial effect on intestine microflora functioning, thus increasing the immune system and facilitating better digestion.

Recommended amount for those who want to lose weight: Pour 1 or 2 tablespoons of fiber with water and take 3 times per day. Do not eat within 2 hours after that.

#### **Fiber of Corn Germs To Enhance Mental Activity**

Thanks to gamma-aminobutyric acid that is a neurotransmitter and a part of fiber of corn germs, the energy processes are enhanced in brain, thus improving memory and mental alertness.

Therefore, this fiber is recommended for those who have experienced strokes and brain injuries. It also normalizes nervous processes.

### **Fiber of Corn Germs to Normalize Hormonal Balance**

Vitamin E and B-vitamin complex harmonize genital system functioning and relieve inflammatory processes. Therefore, this fiber is recommended at menstrual irregularities, hormonal dysfunctions, climacterium, and polycystic ovary.

### **Fiber of Corn Germs to Prevent Dysbacteriosis**

This natural fiber has a beneficial effect on rectum function and feces composition, thus increasing mass of stool. If you add, for example, 50g of corn germ fiber to your food ration, a mass of stool will increase in 3–4 times and its movement period will be reduced from 58 to 40 hours.

### **Intestine Microflora**

Fiber metabolism is the only one metabolic process in the body that is performed in oxygen-free environment. Energy generated during such process is required for reproduction and survival of bacteria in rectum. Therefore, the fiber of corn germs is recommended at intestine dysbacteriosis.

### **Prevention of Colon Cancer**

The increase of fecal masses and reduction of their movement period provide shorter contact of colon mass with cancerogens, radionuclides, heavy metals and increase absorption of carcinogenic substances.

### **Fiber of Corn Germs to Build-Up Muscle Mass**

This fiber fastens muscle mass building-up, increases athletic performance, and provides recovery after hard training. That is why it is very useful for sportsmen's food ration, especially for those engaged in heavy sports. Amino acids are very important for muscle mass building-up, and fiber of corn germs has plenty of them. The corn germ proteins, by their properties, composition and nutrition value, can be compared to such physiologically active proteins of animal origin as, for example, proteins of milk powder, chicken eggs, casein, and dried beef.

Recommended amount for those who want to build-up muscle mass: Take 2–3 tablespoons of this fiber 3 times per day with water or milk. You can stir a fiber in glass of milk, kefir or juice, and let it stand for a while. Take fiber during 2 or 3-weeks to build-up your muscle mass.

### **Fiber of Corn Germs as a Disease Control Agent**

Consumption of this fiber helps to prevent almost all diseases:

- it has a beneficial effect on the body functioning and coordinates softly its work;
- regulates and restores normal behavior of vital processes in the body;
- balances and normalizes metabolism, and increases the immune system;
- stabilizes and rejuvenates all body systems: nervous, endocrine, circulatory, lymphatic, digestive, respiratory, excretory, thermoregulatory, energetic, musculoskeletal, reproductive, and other small systems and subsystems;
- facilitates resorption of various malignant and benign tumors, polyps, cysts, lipomas, myomas, fibromas, etc;
- enriches the blood with oxygen, thus oxidizing additionally various decomposition products and giving energetic toning to the tissues; furthermore, it increases body endurance to cold and hypoxia;
- eliminates from inflammatory processes;
- normalizes the intestine microflora and restores its condition to the child's microflora not poisoned with "civilized" food;
- removes byproducts of cells activity, poisons, harmful cholesterol, non-organic, pharmaceutical and other harmful substances;
- normalizes the blood sugar level;





- helps to treat brittle nails, and hair loss, and restores their color and natural thickness;
- returns visual acuity;
- reduces obesity: common (adiposis) and local (individual body parts); you can't overeat when taking fiber of corn germ;
- facilitates active longevity.

Fiber of corn germs is included into food rations at high physical and psychoemotional loads as an additional source of food fibers, macro- and microelements, protein, and vitamins. Also, it is taken to provide optimal dietetic conditions of functioning of digestive system, liver, and pancreas; to normalize motor function of the intestine, to support normal functioning of cardio-vascular system, and to prevent atherosclerosis. The fiber of corn germs is rich in energy; it is an excellent antioxidant and radioprotector.

**Directions For Use:**

You can add the fiber to any first or second course, side dish, vegetable or fruit salad, quark, milk, kefir (butter milk), yoghurt, juice, fruit puree, and dessert. Also use it to cook buns and bread.

For adults: 1–2 tablespoons per day.

Take it carefully at gastric ulcer and duodenal ulcer, kidneys diseases, and diarrhea.

**VEGETABLE FIBER OF WHEAT GERMS**

It is recommended to take this fiber as a dietary supplement to the food ration so that to normalize digestion and gastrointestinal tract functioning, to reduce the blood sugar level, to prevent thrombosis, to normalize metabolism and cholesterol level in the blood, to enhance the immune system and body defenses, to improve overall condition of the body, to prevent cardio-vascular diseases, to normalize prostate gland functioning, to release toxins from the body, to prevent colon cancer and dysbacteriosis, to normalize hormonal balance, and to build-up muscular mass.

This fiber helps to lose weight, to reduce obesity, to normalize weight, and to facilitate active longevity.

Vitamins contained in wheat germs improve the skin condition, speed up tissue regeneration, improve the growth of hair and nails. Also, they are essential for preserving eyesight and strong immune system. Wheat germs contain 12 vitamins, 18 amino acids, 7 of which are essential, and also 21 minerals. B-group vitamins content is 3–4 times higher than in the whole grain, while potassium content is 2.5–5 times higher. Vitamin E content is 75 times higher than in bread, while the content of phosphorus, magnesium, and zinc is 10 times higher than in bread.

It is recommended to take this fiber at high physical and psychoemotional loads as an additional source of food fibers, macro- and microelements, protein, and vitamins. Also, it is taken to provide optimal dietetic conditions of functioning of digestive system, liver, and pancreas; to normalize motor function of the intestine, to support normal functioning of cardio-vascular system, to prevent atherosclerosis, obesity, haemorrhoids, thrombophlebitis, ischemic heart disease and diabetes.

This fiber restores the energy balance, regulates the most important body functions, helps to resist to serious diseases and adverse environmental conditions, has rejuvenatory and toning effect on the human body, normalizes metabolism, eliminates from chronic fatigue symptoms, and enhances the body defenses. The fiber has a high level of organic selenium and carotinoids that have antioxidant properties and protect the body from the free radicals attack. Regular consumption of this fiber prevents the occurrence of new growth, strengthens capillaries, improves skin condition and face color, and slows down the aging of the body.



This fiber cleanses the body from bile acids and toxins, releases nitrates that enter the body when eating fruits and vegetables.

The fiber of wheat germs is rich in energy; it is an excellent antioxidant and radioprotector.

It also facilitates better digestion and normalizes the intestine microflora. The fiber cleanses your body by means of soaking up all excessive substances that have accumulated over the years. Once in the intestine, this fiber swells and acquires the ability to sorb and remove from the body toxins, wastes, excessive cholesterol, ammonia, and bile pigments.

You can add the fiber to any first or second course, porridge, vegetable caviar, vegetable or fruit salad, quark, milk, kefir (butter milk), yoghurt, juice, fruit puree, and dessert. Also use it to cook buns and bread.

Fiber of wheat germs is very useful and can replace bread as it contains no yeast and white flour.

#### Health Benefits of Vegetable Fiber of Wheat Germs

Wheat germ is a valuable nature gift that has high biological and nutrition value. Unfortunately, modern technologies of cooking top-grade flour do not use the most valuable components, such as germs and bran. While they contain high level of nutrients that are the part of wheat grains.

Wheat germs contain 12 vitamins, 18 amino acids, 7 of which are essential, and also 21 macro- and microelements. B-group vitamins content in one germ is 3–4 times higher than in the whole grain, while calcium content is 1.5–2.5 times higher, and potassium content is 2.5–5 times higher. Vitamin E content in one wheat germ is 75 times higher than in bread, while the content of such minerals as phosphoric, magnesium, and zinc is 10 times higher.

This fiber restores the energy balance, regulates the most important body functions, helps to resist to serious diseases and adverse environmental conditions (radiation and chemical pollution, stresses), has rejuvenatory and toning effect on the human body, normalizes metabolism, eliminates from chronic fatigue symptoms, and enhances the body defenses. The fiber has a high level of organic selenium and carotinoids that have antioxidant properties and protect the body from the free radicals attack.

Regular consumption of this fiber prevents the occurrence of new growth, strengthens capillaries, improves skin condition and face color, and slows down the aging of the body.

#### Fiber of Wheat Germs to Lose Weight

As it is known, the fiber helps to optimize intestine functions, peristalsis in particular. It cleanses the body from harmful substances and normalizes stool.

The fiber improves digestion and speeds up the movement of intestinal wastes in gastrointestinal tract.

When consuming fiber of wheat germs, the body sends the signal of hunger more later as it processes a rich amino acid complex contained in wheat germs. It is very useful for those who want to lose weight. Fiber of wheat germs has a beneficial effect on intestine microflora functioning, thus increasing the immune system and facilitating better digestion.

Recommended amount for those who want to lose weight: Pour 1 or 2 tablespoons of fiber with water and take 3 times per day. Do not eat within 2 hours after that.

#### Fiber of Wheat Germs To Enhance Mental Activity

Thanks to gamma-aminobutyric acid that is a neurotransmitter and a part of fiber of wheat germs, the energy processes are enhanced in brain, thus improving memory and mental alertness.

Therefore, this fiber is recommended for those who have experienced strokes and brain injuries. It also normalizes nervous processes.

### **Fiber of Wheat Germs to Normalize Hormonal Balance**

Vitamin E and B-vitamin complex harmonize genital system functioning and relieve inflammatory processes. Therefore, this fiber is recommended at menstrual irregularities, hormonal dysfunctions, climacterium, and polycystic ovary.

### **Fiber of Wheat Germs to Prevent Dysbacteriosis**

This natural fiber has a beneficial effect on rectum function and feces composition, thus increasing mass of stool. If you add, for example, 50g of wheat germ fiber to your food ration, a mass of stool will increase in 3–4 times and its movement period will be reduced from 58 to 40 hours.

### **Intestine Microflora**

Fiber metabolism is the only one metabolic process in the body that is performed in oxygen-free environment. Energy generated during such process is required for reproduction and survival of bacteria in rectum. Therefore, the fiber of wheat germs is recommended at intestine dysbacteriosis.

### **Prevention of Colon Cancer**

The increase of fecal masses and reduction of their movement period provide shorter contact of colon mass with cancerogens, radionuclides, heavy metals and increase absorption of carcinogenic substances.

### **Fiber of Wheat Germs to Build-Up Muscle Mass**

This fiber fastens muscle mass building-up, increases athletic performance, and provides recovery after hard training. That is why it is very useful for sportsmen's food ration, especially for those engaged in heavy sports. Amino acids are very important for muscle mass building-up, and fiber of wheat germs has plenty of them. 18 amino acids, 7 of which are essential. The wheat germ proteins, by their properties, composition and nutrition value, can be compared to such physiologically active proteins of animal origin as, for example, proteins of milk powder, chicken eggs, casein, and dried beef.

Recommended amount for those who want to build-up muscle mass: Take 2–3 tablespoons of this fiber 3 times per day with water or milk. You can stir a fiber in glass of milk, kefir (butter milk) or juice, and let it stand for a while. Take fiber during 2 or 3 weeks to build-up your muscle mass.

### **Fiber of Wheat Germs as a Disease Control Agent:**

- consumption of this fiber helps to prevent almost all diseases;
- it has a beneficial effect on the body functioning and coordinates softly its work;
- regulates and restores normal behavior of vital processes in the body;
- balances and normalizes metabolism;
- reinforces the immune system;
- stabilizes and rejuvenates all body systems: nervous, endocrine, circulatory, lymphatic, digestive, respiratory, excretory, thermoregulatory, energetic, musculoskeletal, reproductive, and other small systems and subsystems;
- facilitates resorption of various malignant and benign tumors, polyps, cysts, lipomas, myomas, fibromas, etc;
- enriches the blood with oxygen, thus oxidizing additionally various decomposition products and giving energetic toning to the tissues; furthermore, it increases body endurance to cold and hypoxia;
- eliminates from inflammatory processes;
- normalizes the intestine microflora and restores its condition to the child's microflora not poisoned with "civilized" food;
- removes byproducts of cells activity as well as poisons, harmful cholesterol, non-organic,



pharmaceutical and other harmful substances;

- helps to treat brittle nails, and hair loss, and restores hair color and natural thickness;
- returns visual acuity;
- reduces obesity both common (adiposis) and local (individual body parts); you can't overeat when taking fiber of wheat germs;
- facilitates active longevity.

Fiber of wheat germs is included into food rations at high physical and psychoemotional loads as an additional source of food fibers, macro- and microelements, protein, and vitamins. Also, it is taken to provide optimal dietetic conditions of functioning of digestive system, liver, and pancreas; to normalize motor function of the intestine, to support normal functioning of cardio-vascular system, and to prevent atherosclerosis. The fiber of wheat germs is a delicate product that is rich in energy; it is an excellent antioxidant and radioprotector.

#### **Directions For Use:**

You can add the fiber to any first or second course, side dish, vegetable or fruit salad, quark, milk, kefir (butter milk), yoghurt, juice, fruit puree, and dessert. Also use it to cook buns and bread.

For adults: 1–2 tablespoons per day.

Take it carefully at gastric ulcer and duodenal ulcer, kidneys diseases, and diarrhea.

#### **VEGETABLE FIBER OF RYE BRAN**

It is recommended to take this fiber as a dietary supplement to the food ration so that to normalize digestion and gastrointestinal tract functioning, to reduce the blood sugar level, to prevent thrombosis, to normalize metabolism and cholesterol level in the blood, to enhance the immune system and body defenses, to improve overall condition of the body, to prevent cardio-vascular diseases, to normalize prostate gland functioning, to release toxins from the body, to prevent colon cancer and dysbacteriosis, and to normalize hormonal balance.

Research data show that taking fiber of rye bran at diabetes reduces the increase of blood glucose level after eating. Consequently, there is no need to take insulin and other anti-diabetic medicines.

This fiber helps to lose weight, to reduce obesity, to normalize weight, and to facilitate active longevity.

Vitamins contained in rye bran improve the skin condition, speed up tissue regeneration, and improve the growth of hair and nails. Also, they are essential for preserving eyesight and strong immune system.

It is recommended to take this fiber at high physical and psychoemotional loads as an additional source of food fibers, macro- and microelements, protein, and vitamins. Also, it is taken to provide optimal dietetic conditions of functioning of digestive system, liver, and pancreas; to normalize motor function of the intestine, to support normal functioning of cardio-vascular system, to prevent atherosclerosis, obesity, haemorrhoids, thrombophlebitis, ischemic heart disease and diabetes.

This fiber cleanses the body from bile acids and toxins, releases nitrates that enter the body when eating fruits and vegetables.

The fiber of rye bran is rich in energy; it is an excellent antioxidant and radioprotector. It also facilitates better digestion and normalizes the intestine microflora. The fiber cleanses your body by means of soaking up all excessive substances that have accumulated over the years. Once in the intestine, this fiber swells and acquires the ability to sorb and remove from the body toxins, wastes, excessive cholesterol, ammonia, and bile pigments.





You can add the fiber to any first or second course, porridge, vegetable caviar, vegetable or fruit salad, quark, milk, kefir (butter milk), yoghurt, juice, fruit puree, and dessert. Also use it to cook buns and bread. It is perfect for au gratin.

Fiber of rye bran is very useful and can replace bread as it contains no yeast and white flour.

#### Health Benefits of Vegetable Fiber of Rye Bran

Rye bran fiber is valued at most for the high content of food fibers.

This fiber helps to regulate the intestine functioning, to improve microflora, and to lose weight. It is very useful for health and slim figure. Rye bran consists of floral cover (peel) of the grain, grain germ, and aleurone layer of the grain. It is bran, which contains the most useful things that may be found in the grain itself.

Bran contains 90% of biologically active components of the whole grain. Meanwhile, top-grade flour is a pure starch that has no living cells or active microelements necessary for our body.

Since olden times the rye is known for its useful properties. All food that has been cooked with rye rightly belongs to the healthiest and useful food as its regular consumption normalizes digestion and metabolic processes, cleanses the body, removes wastes, enhances the immune system, and increases protective properties of the body. Fiber of rye bran is rich in amino acids that are essential for the human being.

Regular consumption of fiber of rye bran helps to reduce cholesterol level and sugar level in the blood. Also, this fiber can arrange biliary excretion at gallbladder dyskinesia, and helps to get rid of constipations. Fiber of rye bran removes detrimental compounds of heavy metals from the body.

#### Fiber of Rye Bran to Lose Weight

This fiber is very useful for those people suffering from overweight; it helps to lose weight, and to get a slim figure. Fiber-rich food is absorbed more slowly and provides feeling of fullness for a longer time. Fiber of bran enhances the intestine peristalsis thus reducing absorption of nutrients and consequently of calorie content of food.

Furthermore, this fiber swells in the intestine and increases in volume thus giving a feeling of fullness and preserving people from overeating and gaining excess weight, and further obesity.

Fiber of rye bran contains B-group vitamins, vitamin A, and vitamin E. It also contains microelements that are essential for normal metabolic processes in the body. Such microelements are as follows: potassium, calcium, fluorine, copper, zinc, magnesium, selenium, chromium, etc. Bran can be classified as health food product. Many valuable minerals are destroyed in the process of grain milling. Those people who like pastries usually suffer from hyperacidity. If food is cooked with using uncleaned grain or bran, it helps to prevent constipations, and such concomitant diseases as: haemorrhoids, obesity and so on, and also thrombophlebitis, ischemic heart disease, and diabetes.

#### Fiber of Rye Bran to Struggle Against Obesity and Diabetes

Vegetable fibers, which are contained in large numbers in bran, are poorly digested. So, people do not feel hungry for a longer time. That is why the fiber of rye bran is so popular among people suffering from excess weight. Also, this fiber has low nutrition value. When passing through the intestine, the fiber swells and forms a soft mass that removes decomposition products and cancerogens from the intestine. Due to this the fiber of rye bran can reduce the blood sugar level and cholesterol level.

It is recommended as an effective supplement to patients suffering from diabetes. Regular consumption of this fiber restores metabolism and reduces the blood sugar level.

It slows down the absorption of carbohydrates reducing thereby the speed of increasing of the blood glucose level. Therefore, regular consumption of this fiber is useful for those people suffering



from diabetes (i.e. the fiber of rye bran included to the diabetics food ration reduces consumption of medicines containing insulin). Rye bran reduces insulin secretion, thus protecting the body from the development of insulin resistance, and consequently from the occurrence of diabetes mellitus type II and cardiovascular diseases.

Research data show that taking fiber of rye bran at diabetes reduces the increase of blood glucose level after eating. Consequently, there is no need to take insulin and other anti-diabetic medicines.

#### **Fiber of Rye Bran to Provide Normal Functioning of Cardio-Vascular System**

Rye bran consists of vitamins E, A, PP, B-group vitamins, calcium, phosphorus, zinc, manganese, and other minerals. The rye white contains such useful amino acids as lysine and threonine.

As fiber of rye bran contains vitamins B3, B6, and B9, the cholesterol level in the blood is significantly reduced, thus preventing the development of atherosclerotic plaques on the vessel walls.

Vitamin B1 contained in rye bran transforms into cocarboxylase that positively affects many functions of cardio-vascular system. Potassium and magnesium also contained in rye bran are very important for our heart and vessels. Therefore, regular consumption of this fiber is a perfect preventive measure against atherosclerosis, tachycardia, arrhythmia, coronary artery disease, myocardial infarction, and stroke. Avitaminosis, for example, is treated with the help of rye bran broth. Pour 1 tablespoon of fiber of rye bran with water, boil for 1 minute, and then let it stand for 1 hour. Drain the liquid and take 3 times per day before eating. Single dose is 1/2 glass. Allergics are recommended to take a bath with fiber of rye bran for 20 minutes every day. To prepare such bath mixture, mix 1kg of fiber of rye bran with 4 liters of boiling water, and let it stand for 4 hours. Drain the broth into the bath before taking a bath. A broth made of this fiber is taken at acne several times per day.

Scientists insist that people could live longer and feel better if they had eaten more food containing fiber of rye bran and hard digested food. It is bran, which is exactly such food. As it contains a lot of fiber it is a hard digested product.

#### **Health Benefits of Fiber of Rye Bran for Male and Female Body**

Thanks to unique properties of rye it can be considered not only as a healthy product but as a natural medicine as well. In ancient times, the rye was considered as an agent increasing vital tonus and raising mood. Also, the rye totally strengthens the body and normalizes metabolism.

Broth made of rye bran fiber unlike rye bran can make stool hard. It is recommended to take this broth at diarrhea. Furthermore, this broth is taken to beat back a lingering cough. It is a perfect expectorant and emollient. It is recommended to take it at tuberculosis, atherosclerosis, and anemia. Also take it as an agent improving the heart function. In ancient times it was said the following: "The rye makes a person to straighten up". Modern science says that the rye grain contains the greatest number of B-group vitamins that are essential for backbone. It is the rye bran, which contains these vitamins in the most digested state for our body. Rye bran helps to keep working capacity within the whole day, and to stay energetic and healthy.

Rye bran is rich in such polyunsaturated acids as OMEGA-3 and OMEGA-6. Therefore, bran as well as flax seed oil normalizes estrogens level in female body. Consumption of bran is very useful for prevention and treatment of breast cancer, endometriosis, hysteromyoma, and other gynecological diseases.

Vitamin-E rich rye bran (a vitamin of youthfulness) included into men's food ration helps to restore potency and preserve men's health for years.

Regular consumption of fiber of rye bran removes detrimental compounds of heavy metals from the body. Fiber of rye bran normalizes the intestine functioning and reduces the development of colon

tumors. Thanks to this fiber the digestion process is shifted to that area in colon where usually a tumor appears.

It seems that fiber of rye bran is useful almost in everything. So it is. Counterindications can occur only at acute phase of gastritis, polyps, and gastric ulcer. It is better stop consuming fiber for a while at acute phase until recurrence ends.

If you have increased feeling of hunger at nights but you can't eat after 6 PM because of the diet prescribed by your dietitian, just drink a glass of kefir (butter milk) mixed with a handful of rye bran fiber to relieve hunger.

Bran-rich food facilitates a formation of a special substance that prevents the cells damage. Nutritionists say that we have to take 30g of food fibers per day. Food fibers give a feeling of fullness. They also stimulate biliary excretion, intestine motor function, thin the intestine content as well as form and increase the number of fecal mass and effect positively on the intestine microflora, and reduce effectively cholesterol level in the blood. The lack of fiber in today food ration is one of the reasons of constipations, and the main factor of the development of colon and rectal polyps, and haemorrhoids.

Fiber of rye bran is necessary for normal functioning of digestive system; it is essential for prevention of cancer diseases. Rye bran is rich in fiber that can retain a lot of water thanks to its pore structure. Once in the intestine, it thins fecal masses and facilitates their active movement in the colon. Thanks to this property, the fiber is useful for those people suffering from frequent constipations.

Fiber of rye bran contains such substances that excite the intestine peristalsis and facilitate the wastes removal. The most important microelement for the human being is iron that is left in bran too (unlike flour).

The most important bran property is an ability to retain water. For example, 1g of bran can retain 5g of water. It enhances colon peristalsis and increases the volume of fecal masses. The fiber shortens the contact of harmful substances and metabolism byproducts with colon mucous membrane in the body, thus bringing to minimum the development of colon cancer and haemorrhoids.

Furthermore, the fiber is a perfect breeding ground for useful intestinal flora. Due to that fact, the consumption of fiber of rye bran is an effective method of dysbacteriosis prevention and treatment.

B-group vitamins contained in rye bran facilitate digestion (vitamins B2 and B3 have a beneficial effect on mucous membrane of the whole alimentary tract, while vitamin B3 stimulates gastric juice production and the intestine motor function as well as increases activity of liver, and pancreas). Fiber of rye bran normalizes biliary excretion and absorbs harmful bile acids and bad cholesterol formed in the result of enterohepatic circulation of bile. This is the reason why you should take fiber of rye bran every day so that to prevent and treat biliary dyskinesia, cholelithiasis, and other diseases of liver, gall bladder, and bile ducts.

Therapeutic and nutritious benefits of fiber of rye bran are immeasurable. It cleanses the intestine perfectly, and this is a key to health and longevity.

Since olden time, steamed rye bran in Rus has been used in folk medicine as purgative agent as well as the agent that normalizes digestion, and a softening agent at psoriasis, eczema, and skin dryness. Also, it was used at poisonings and for therapy tanks. Archiaters in France used bran as sure remedy to cure heart diseases. Nowadays, rye bran is used in cosmetology to prepare face masque for fading skin.

Consumption of 20–30g of this fiber per day helps the patients suffering from familial adenomatous polyposis to prevent the occurrence and the development of rectum polyps. Patients suffering from nonfamilial adenomatous polyposis can avoid polyps' reacquisition after their removal by means of surgical excision.

### Directions For Use

You can add the fiber to any first or second course, side dish, vegetable caviar, vegetable or fruit salad, quark, milk, kefir (butter milk), yoghurt, juice, fruit puree, and dessert. Also use it to cook buns and bread.

You can normalize the intestine functioning within only 3 or 4 days by adding rye bran to your food. None of the medicines can provide you with such results.

Fiber of rye bran is very useful and can replace bread as it contains no yeast and white flour.

Steam the fiber with water and drain it in half an hour. Take a swollen fiber with warm water or just add it to your dish as indicated above.

Take 1 or 2 teaspoons of this fiber per day just for preventive purposes. Those children who reach by 2 years of age can take this fiber. Daily intake of fiber is prescribed strictly individually taking into consideration stool frequency — it is desirable that a person should go to the toilet 2 times per day when taking fiber. Begin taking 1 teaspoon 3 times per day. Then you can increase your intake to 1 tablespoon 3 times per day.

When taking fiber of rye bran, drink a lot of water (about 6 glasses per day).

### VEGETABLE FIBER OF MILLET BRAN

It is recommended to take this fiber as a dietary supplement to the food ration so that to normalize digestion and gastrointestinal tract functioning, to reduce the blood sugar level, to prevent thrombosis, to normalize metabolism and cholesterol level in the blood, to enhance the immune system and body defenses, to improve overall condition of the body, to prevent cardio-vascular diseases, to normalize prostate gland functioning, to release toxins from the body, to prevent colon cancer and dysbacteriosis, and to normalize hormonal balance. As millet bran contains a high level of copper, manganese and niacin, it can stimulate hematopoiesis, while magnesium high content facilitates dilation of coronary vessels. Millet bran can remove residual antibiotics and decomposition products from the body (eat millet bran when taking antibiotics). Also, millet bran can reduce the growth of tumors.

This fiber helps to lose weight, to reduce obesity, to normalize weight, and to facilitate active longevity. Millet bran can mend broken bones and strengthen damaged bones as well as heal wounds, and reinforce muscle strength. Taking millet bran at hypertension normalizes blood pressure for a long time, and makes the eyesight sharper at night and twilight. Vitamins contained in millet bran improve the skin condition, speed up tissue regeneration, and improve the growth of hair and nails. Also, they are essential for preserving eyesight and the immune system.

It is recommended to take this fiber at high physical and psychoemotional loads as an additional source of food fibers, macro- and microelements, protein, and vitamins. Also, it is taken to provide optimal dietetic conditions of functioning of digestive system, liver, and pancreas; to normalize motor function of the intestine, to support normal functioning of cardio-vascular system, to prevent atherosclerosis, obesity, haemorrhoids, thrombophlebitis, ischemic heart disease and diabetes.

This fiber cleanses the body from bile acids and toxins, releases nitrates that enter the body when eating fruits and vegetables.

The fiber of millet bran is rich in energy; it is an excellent antioxidant and radioprotector. It also facilitates better digestion and normalizes the intestine microflora. The fiber cleanses your body by means of soaking up all excessive substances that have accumulated over the years. Once in the intestine, this fiber swells and acquires the ability to sorb and remove from the body toxins, wastes, excessive cholesterol, ammonia, and bile pigments.



You can add the fiber to any first or second course, porridge, vegetable caviar, vegetable or fruit salad, quark, milk, kefir (butter milk), yoghurt, juice, fruit puree, and dessert. Also use it to cook buns and bread. It is perfect for au gratin.

Fiber of millet bran is very useful and can replace bread as it contains no yeast and white flour.

#### Health Benefits of Vegetable Fiber of Millet Bran

Millet bran fiber is valued at most for the high content of food fibers. This fiber helps to regulate the intestine functioning, to improve microflora, and to lose weight. It is very useful for health and slim figure.

Millet bran consists of floral cover (peel) of the grain, grain germ, and aleurone layer of the grain. It is bran, which contains the most useful things that may be found in the grain itself. Bran contains 90% of biologically active components of the whole grain. Meanwhile, top-grade flour is a pure starch that has no living cells or microelements necessary for our body.

Regular consumption of fiber of millet bran helps to reduce cholesterol level and sugar level in the blood. Also, fiber of millet bran can arrange biliary excretion at gallbladder dyskinesia, and helps to get rid of constipations. Fiber of millet bran removes harmful detrimental compounds of heavy metals from the body.

#### Fiber of Millet Bran to Lose Weight

This fiber is very useful for those people suffering from overweight; it helps to lose weight, and to get a slim figure. Fiber-rich food is absorbed more slowly and provides feeling of fullness for a longer time. Fiber of bran enhances the intestine peristalsis thus reducing absorption of nutrients and consequently of calorie content of food.

Furthermore, this fiber swells in the intestine and increases in volume thus giving a feeling of fullness and preserving people from overeating and gaining excess weight, and further obesity.

Fiber of millet bran contains B-group vitamins, vitamin A, and vitamin E. It also contains microelements that are needed for normal metabolic processes in the body. Such microelements are as follows: potassium, calcium, fluorine, zinc, magnesium, selenium, chromium, etc. Bran can be classified as health food product. Many valuable minerals are destroyed in the process of grain milling. As a rule, those who like pastries have got hyperacidity. If food is cooked with using uncleaned grain or bran, it helps to prevent constipations, and such concomitant diseases as: haemorrhoids, obesity and so on, and also thrombophlebitis, ischemic heart disease, and diabetes.

#### Fiber of Millet Bran to Struggle Against Obesity and Diabetes

Vegetable fibers, that are contained in large numbers in bran, are poorly digested. So, people do not feel hungry for a longer time. That is why the fiber of millet bran is so popular among people suffering from excess weight. Also, this fiber has low nutrition value. When passing through the intestine, the fiber swells and forms a soft mass that removes decomposition products and cancerogens from the intestine. Due to this the fiber of millet bran can reduce the blood sugar level and cholesterol level.

The fiber of millet bran is recommended as an effective supplement to patients suffering from diabetes. Regular consumption of this fiber restores metabolism and reduces the blood sugar level.

It slows down the absorption of carbohydrates reducing thereby the speed of increasing of the blood glucose level. Therefore, regular consumption of this fiber is useful for those people suffering from diabetes (i.e. the fiber of millet bran included to the diabetics food ration reduces consumption of medicines containing insulin).

Research data show that taking fiber of millet bran at diabetes reduces the increase of blood

glucose level after eating. Consequently, there is no need to take insulin and other anti-diabetic medicines.

### **Fiber of Millet Bran to Provide Normal Functioning of Cardio-Vascular System**

Millet bran is recommended for those who suffer from cardio-vascular system diseases, atherosclerosis, habitual constipations, hypertension, and kidneys diseases. Millet bran contains vitamins A, E, PP, B-group vitamins, and such minerals as calcium, potassium, phosphorus, magnesium, sodium, iron, iodine, zinc, copper, manganese, and nickel. Potassium content in millet bran is 4 times higher than in rice, while magnesium content is 5 times higher. As millet bran contains a high level of copper, manganese and niacin, it can stimulate hematopoiesis, while magnesium high content facilitates dilation of coronary vessels. Millet bran can remove residual antibiotics and decomposition products from the body (eat millet bran every day when taking antibiotics). Also, millet can reduce the growth of tumors, while its diuretic properties help to treat edema. Millet bran can mend broken bones and strengthen damaged bones as well as heal wounds, and strengthen muscle system. It also facilitates soft tissues connection. Taking millet bran at hypertension normalizes blood pressure for a long time, and makes the eyesight sharper at night and twilight. Millet bran contains a lot of iodine, zinc, potassium, sodium, bromine, and phosphorus.

Scientists insist that people could live longer and feel better if they had eaten more food containing fiber of rude and hard digested food. It is bran, which is exactly such food. As it contains a lot of fiber it is hard digested.

### **Health Benefits of Fiber of Millet Bran for Male and Female Body**

People consuming more vegetable fiber are less exposed to heart diseases compared to those consuming far too little of fiber. The fact that bran has therapeutic and protective properties is associated with a high number of vitamins, minerals, antioxidants, and phytonutrients contained in it. Furthermore, some vegetable lignines contained in bran are phytoestrogens in fact. Regular consumption of phytoestrogens prevents the occurrence of neoplasms related to hormones.

Millet bran is rich in vitamin B3 and vitamin B6 as well as such polyunsaturated acids as OMEGA-3 and OMEGA-6. Therefore, bran as well as flax seed oil normalizes estrogens level in female body. Consumption of bran is very useful for prevention and treatment of breast cancer, endometriosis, hysteromyoma, and other gynaecological diseases.

Vitamin-E rich millet bran (a vitamin of youthfulness) included into men's food ration helps to restore potency and preserve men's health for years.

Regular consumption of fiber of millet bran removes detrimental compounds of heavy metals from the body. Fiber of millet bran normalizes the intestine functioning and reduces the development of colon tumors. Thanks to fiber of millet bran the digestion process transfers to that area in colon where usually a tumor appears.

It seems that fiber of millet bran is useful almost in everything. So it is. Counterindications can occur only at acute phase of gastritis, polyps, and gastric ulcer. It is better stop consuming fiber for a while at acute phase until recurrence ends.

If you have increased feeling of hunger at nights but you can't eat after 6 PM because of the diet prescribed by your dietitian, just drink a glass of kefir (butter milk) mixed with a handful of millet bran fiber to relieve hunger.

Bran-rich food facilitates a formation of a special substance that prevents the cells damage. Nutritionists say that we have to take 30g of food fibers per day. Food fibers give a feeling of fullness.

They also stimulate biliary excretion, intestine motor function, thin the intestine content as well as



form and increase the number of fecal mass and effect positively on the intestine microflora, and reduce effectively cholesterol level in the blood. The lack of fiber in today food ration is one of the reasons of constipations, and the main factor of the development of colon and rectal polyps, and haemorrhoids.

Fiber of millet bran is necessary for normal functioning of digestive system; it is essential for prevention of cancer diseases. Millet bran is rich in fiber that can retain a lot of water thanks to its pore structure. Once in the intestine, it thins fecal masses and facilitates their active movement in the colon. Thanks to this property, the fiber is useful for those people suffering from frequent constipations.

Fiber of millet bran contains such substances that excite the intestine peristalsis and facilitate the wastes removal. The most important microelement for the human being is iron that is left in bran too (unlike flour).

The most important bran property is an ability to retain water. For example, 1g of bran can retain 5g of water. It enhances colon peristalsis and increases the volume of fecal masses. The fiber shortens the contact of harmful substances and metabolism byproducts with colon mucous membrane in the body, thus bringing to minimum the development of colon cancer and haemorrhoids.

Furthermore, the fiber is a perfect breeding ground for useful intestinal flora. Due to that fact, the consumption of fiber of millet bran is an effective method of dysbacteriosis prevention and treatment.

B-group vitamins contained in millet bran facilitate digestion (vitamins B2 and B3 have a beneficial effect on mucous membrane of the whole alimentary tract, while vitamin B3 stimulates gastric juice production and the intestine motor function as well as increases activity of liver, and pancreas). Fiber of millet bran normalizes biliary excretion and absorbs harmful bile acids and bad cholesterol formed in the result of enterohepatic circulation of bile. This is the reason why you should take fiber of millet bran every day so that to prevent and treat biliary dyskinesia, cholelithiasis, and other diseases of liver, gall bladder, and bile ducts.

Therapeutic and nutritious benefits of fiber of millet bran are immeasurable. It cleanses the intestine perfectly, and this is a key to health and longevity.

Since olden time, steamed millet bran in Rus has been used in folk medicine as purgative agent and the agent that normalizes digestion. Also, it is used at poisonings and for therapy tanks as well as a softening agent at psoriasis, eczema, and skin dryness. Archiaters in France used bran as sure remedy to cure heart diseases. Nowadays, millet bran is used in cosmetology to prepare face masque for fading skin.

Consumption of 20–30g of this fiber per day helps the patients suffering from familial adenomatous polyposis to prevent the occurrence and the development of rectum polyps. Patients suffering from nonfamilial adenomatous polyposis can avoid polyps reacquisition after their removal by means of surgical excision.

### **Directions For Use**

You can add the fiber to any first or second course, side dish, vegetable caviar, vegetable or fruit salad, quark, milk, kefir (butter milk), yoghurt, juice, fruit puree, and dessert. Also use it to cook buns and bread.

You can normalize the intestine functioning within only 3 or 4 days by adding millet bran to your food. None of the medicines can provide you with such results.

Fiber of millet bran is very useful and can replace bread as it contains no yeast and white flour.

Steam the fiber with water and drain it in half an hour.

Take a swollen fiber with warm water or just add it to your dish as indicated above.

Take 1 or 2 teaspoons of this fiber per day just for preventive purposes. Those children who reach



by 2 years of age can take this fiber. Daily intake of fiber is prescribed strictly individually taking into consideration stool frequency — it is desirable that a person should go to the toilet 2 times per day when taking fiber. Begin taking 1 teaspoon 3 times per day. Then you can increase your intake to 1 tablespoon 3 times per day.

When taking fiber of millet bran, drink a lot of water (about 6 glasses per day).

#### VEGETABLE FIBER OF OAT BRAN

It is recommended to take this fiber as a dietary supplement to the food ration so that to normalize digestion and gastrointestinal tract functioning, to reduce the blood sugar level and cholesterol level, to prevent thrombosis, to normalize metabolism and cholesterol level in the blood, to enhance the immune system and body defenses, to improve overall condition of the body, to prevent cardio-vascular diseases, to normalize prostate gland functioning, to release toxins from the body, to prevent colon cancer and dysbacteriosis, and to normalize hormonal balance. The fiber of oat bran helps to get rid of constipations.

Oat bran contains 12 amino acids that are essential for the human being. It is rich in polyunsaturated fatty acids that have no analogues by their qualitative and quantitative composition contained in other vegetable raw materials. Polyphenols that are found in oat prevent the development of atherosclerosis as they reduce the level of cholesterol and lipoproteins in the blood. Oat bran improves metabolism in the body; it behaves as diaphoretic, diuretic, antifebrile, antisclerotic, and antiulcer agent, and helps to treat skin diseases. Oat bran is taken at acute and chronic bronchitis, and pulmonary emphysema. It contains vegetable fibers (beta-glucan) that reduce cholesterol level in the blood, and also it contains unique avenatramid antioxidant that protects vessels. Oat bran contains more iron than in other bran. Furthermore, it contains a lot of sulphur (it is essential for metabolism of nervous tissue, blood, hair, nails, cartilages, and bones), silicon (it prevents hair loss and stops the degenerative processes), phosphorus, and potassium. This fiber slows down the absorption of carbohydrates reducing thereby the speed of increasing of the blood glucose level. Therefore, regular consumption of this fiber is useful for those people suffering from diabetes (i.e. the fiber of oat bran included to the diabetics food ration reduces consumption of medicines containing insulin).

Research data show that taking fiber of oat bran at diabetes reduces the increase of blood glucose level after eating. Consequently, there is no need to take insulin and other anti-diabetic medicines. Oat bran slows down bolus digestion. Therefore, sugar absorption is slowed down, and bursts of blood sugar level are kept to a minimum. The pancreas functioning gets easier.

This fiber helps to lose weight, to reduce obesity, to normalize weight, and to facilitate active longevity.

It also facilitates better digestion and normalizes the intestine microflora. The fiber cleanses your body by means of soaking up all excessive substances that have accumulated over the years. Once in the intestine, this fiber swells and acquires the ability to sorb and remove from the body toxins, wastes, excessive cholesterol, ammonia, and bile pigments.

Vitamin-E rich oat bran (a vitamin of youthfulness) included into men's food ration helps to restore potency and preserve men's health for years. It is recommended to take this fiber at high physical and psychoemotional loads as an additional source of food fibers, macro- and microelements, protein, and vitamins. Also, it is taken to provide optimal dietetic conditions of functioning of digestive system, liver, and pancreas; to normalize motor function of the intestine, to support normal functioning of cardio-vascular system, to prevent atherosclerosis, obesity, haemorrhoids, thrombophlebitis,





ischemic heart disease and diabetes.

Vitamins contained in oat bran improve the skin condition, speed up tissue regeneration, and improve the growth of hair and nails. Also, they are essential for preserving eyesight and the immune system. Oat bran is rich in such polyunsaturated acids as OMEGA-3 and OMEGA-6. Therefore, bran as well as flax seed oil normalizes estrogens level in female body. Consumption of bran is very useful for prevention and treatment of breast cancer, endometriosis, hysteromyoma, and other gynaecological diseases.

This fiber cleanses the body from bile acids and toxins, releases nitrates that enter the body when eating fruits and vegetables.

The fiber of oat bran is rich in energy; it is an excellent antioxidant and radioprotector.

You can add the fiber to any first or second course, porridge, vegetable caviar, vegetable or fruit salad, quark, milk, kefir (butter milk), yoghurt, juice, fruit puree, and dessert. Also use it to cook buns and bread. It is perfect for au gratin.

#### Health Benefits of Vegetable Fiber of Oat Bran

Oat bran fiber is valued at most for the high content of food fibers. This fiber helps to regulate the intestine functioning, to improve microflora, and to lose weight. It is very useful for health and slim figure.

Bran consists of floral cover (peel) of the grain, grain germ, and aleurone layer of the grain. It is bran, which contains the most useful things that may be found in the grain itself. Bran contains 90% of biologically active components of the whole grain. Meanwhile, top-grade flour is a pure starch that has no living cells or microelements necessary for our body.

Regular consumption of fiber of oat bran helps to reduce cholesterol level and sugar level in the blood. Also, fiber of oat bran can arrange biliary excretion at gallbladder dyskinesia, and helps to get rid of constipations. Fiber of oat bran removes detrimental compounds of heavy metals from the body. Oat bran contains 12 amino acids that are essential for the human being. It is rich in polyunsaturated fatty acids that have no analogues by their qualitative and quantitative composition contained in other vegetable raw materials. Polyphenols that are found in oat prevent the development of atherosclerosis as they reduce the level of cholesterol and lipoproteins in the blood. Oat bran improves metabolism in the body; it behaves as diaphoretic, diuretic, antifebrile, antisclerotic, and antiulcer agent, and helps to treat skin diseases. Oat bran is taken at acute and chronic bronchitis, and pulmonary emphysema. It contains vegetable fibers (beta-glucan) that reduce cholesterol level in the blood, and also it contains unique avenatramid antioxidant that protects vessels. Oat bran contains more iron than in other bran. Furthermore, it contains a lot of sulphur (it is essential for metabolism of nervous tissue, blood, hair, nails, cartilages, and bones), silicon (it prevents hair loss and stops the degenerative processes), phosphorus, and potassium.

#### Fiber of Oat Bran to Lose Weight

This fiber is very useful for those people suffering from overweight; it helps to lose weight, and to get a slim figure. Fiber-rich food is absorbed more slowly and provides feeling of fullness for a longer time. Fiber of bran enhances the intestine peristalsis thus reducing absorption of nutrients and consequently of calorie content of food.

Furthermore, this fiber swells in the intestine and increases in volume thus giving a feeling of fullness and preserving people from overeating and gaining excess weight, and further obesity.

Fiber of oat bran contains B-group vitamins, vitamin A, and vitamin E. It also contains microelements that are needed for normal metabolic processes in the body. Such microelements are as

follows: potassium, calcium, fluorine, copper, zinc, magnesium, selenium, chromium, etc. Bran can be classified as health food product. Many valuable minerals are destroyed in the process of grain milling. As a rule, those who like pastries have got hyperacidity. If food is cooked with using uncleaned grain or bran, it helps to prevent constipations, and such concomitant diseases as: haemorrhoids, obesity and so on, and also thrombophlebitis, ischemic heart disease, and diabetes.

#### **Fiber of Oat Bran to Struggle Against Obesity and Diabetes**

Vegetable fibers, which are contained in large numbers in bran, are poorly digested. So, people do not feel hungry for a longer time. That is why the fiber of oat bran is so popular among people suffering from excess weight. Also, this fiber has low nutrition value.

When passing through the intestine, the fiber swells and forms a soft mass that removes decomposition products and cancerogens from the intestine. Due to this the fiber of oat bran can reduce the blood sugar level and cholesterol level.

The fiber of oat bran is recommended as an effective supplement to patients suffering from diabetes. Regular consumption of this fiber restores metabolism and reduces the blood sugar level.

It slows down the absorption of carbohydrates reducing thereby the speed of increasing of the blood glucose level. Therefore, regular consumption of this fiber is useful for those people suffering from diabetes (i.e. the fiber of oat bran included to the diabetics food ration reduces consumption of medicines containing insulin).

Research data show that taking fiber of oat bran at diabetes reduces the increase of blood glucose level after eating. Consequently, there is no need to take insulin and other anti-diabetic medicines. Oat bran slows down bolus digestion. Therefore, sugar absorption is slowed down, and bursts of blood sugar level are kept to a minimum. The pancreas functioning gets easier.

#### **Fiber of Oat Bran to Provide Normal Functioning of Cardio-Vascular System**

As fiber of oat bran contains vitamins B3, B6, and B9, the cholesterol level in the blood is significantly reduced, thus preventing the development of atherosclerotic plaques on the vessel walls.

Vitamin B1 contained in oat bran transforms into cocarboxylase that positively affects many functions of cardio-vascular system. Potassium and magnesium also contained in oat bran are very important for our heart and vessels. Therefore, regular consumption of this fiber is a perfect preventive measure against atherosclerosis, tachycardia, arrhythmia, coronary artery disease, myocardial infarction, and stroke.

The oat bran was distinguished by the American Heart Association for its beneficial and therapeutic effect and influence on reduction of cholesterol level in the blood.

Scientists insist that people could live longer and feel better if they had eaten more food containing fiber of rude and hard digested food. It is bran, which is exactly such food. As it contains a lot of fiber, it is a hard digested product.

#### **Health Benefits of Fiber of Oat Bran for Male and Female Body**

People consuming more vegetable fiber are less exposed to heart diseases compared to those consuming far too little of fiber. The fact that bran has therapeutic and protective properties is associated with a high number of vitamins, minerals, antioxidants, and phytonutrients contained in it. Furthermore, some vegetable lignines contained in bran are phytoestrogens in fact. Regular consumption of phytoestrogens prevents the occurrence of neoplasms related to hormones.

Oat bran is rich in vitamin B3 and vitamin B6 as well as such polyunsaturated acids as OMEGA-3 and OMEGA-6. Therefore, bran as well as flax seed oil normalizes estrogens level in female body. Consumption of bran is very useful for prevention and treatment of breast cancer, endometriosis,

hysteromyoma, and other gynaecological diseases.

Vitamin-E rich oat bran (a vitamin of youthfulness) included into men's food ration helps to restore potency and preserve men's health for years.

Pesticides found in fruits and vegetables; food additives, pigments, mercury, and lead found in meat and fish; carcinogens, and actually all food we eat enters into colon and is absorbed by the body. Colon cancer is mainly caused by carcinogens that are present in feces.

Fiber of oat bran normalizes the intestine functioning and reduces the development of colon tumors. Thanks to this fiber the digestion process is shifted below that area in colon where usually a tumor appears. Oat bran helps to prevent colon cancer.

It seems that fiber of oat bran is useful almost in everything. So it is. Counterindications can occur only at acute phase of gastritis, polyps, and gastric ulcer. It is better stop consuming fiber for a while at acute phase until recurrence ends.

If you have increased feeling of hunger at nights but you can't eat after 6 PM because of the diet prescribed by your dietitian, just drink a glass of kefir (butter milk) mixed with a handful of oat bran fiber to relieve hunger.

Bran-rich food facilitates a formation of a special substance that prevents the cells damage. Nutritionists say that we have to take 30g of food fibers per day.

Food fibers give a feeling of fullness. They also stimulate biliary excretion, and intestine motor function; thin the intestine content as well as form and increase the number of fecal mass and effect positively on the intestine microflora, and reduce effectively cholesterol level in the blood.

The lack of fiber in today food ration is one of the causes of constipations, and the main factor of the development of colon and rectal polyps, and haemorrhoids.

Fiber of oat bran is necessary for normal functioning of digestive system; it is essential for prevention of cancer diseases. Oat bran is rich in fiber that can retain a lot of water thanks to its pore structure. Once in the intestine, it thins fecal masses and facilitates their active movement in the colon. Thanks to this property, the fiber is useful for those people suffering from frequent constipations.

Fiber of oat bran contains such substances that excite the intestine peristalsis and facilitate the wastes removal. The most important microelement for the human being is iron that is left in bran too (unlike flour).

The most important bran property is an ability to retain water. For example, 1g of bran can retain 5g of water. It enhances colon peristalsis and increases the volume of fecal masses. The fiber shortens the contact of harmful substances and metabolism byproducts with colon mucous membrane in the body, thus bringing to a minimum the development of colon cancer and haemorrhoids.

Furthermore, the fiber is a perfect breeding ground for useful intestinal flora. Due to that fact, the consumption of fiber of oat bran is an effective method of dysbacteriosis prevention and treatment.

B-group vitamins contained in oat bran facilitate digestion (vitamins B2 and B3 have a beneficial effect on mucous membrane of the whole alimentary tract, while vitamin B3 stimulates gastric juice production and the intestine motor function as well as increases activity of liver, and pancreas). Fiber of oat bran normalizes biliary excretion and absorbs harmful bile acids and bad cholesterol formed in the result of enterohepatic circulation of bile. This is the reason why you should take fiber of oat bran every day so that to prevent and treat biliary dyskinesia, cholelithiasis, and other diseases of liver, gall bladder, and bile ducts.

Therapeutic and nutritious benefits of fiber of oat bran are immeasurable. It cleanses the intestine perfectly, and this is a key to health and longevity.

Since olden time, steamed oat bran in Rus has been used in folk medicine as purgative agent as well as the agent that normalizes digestion, and a softening agent at psoriasis, eczema, and skin dryness. Also, it was used at poisonings and for therapy tanks. Archiaters in France used bran as sure remedy to cure heart diseases. Nowadays, oat bran is used in cosmetology to prepare face masque for fading skin.

Consumption of 20–30g of this fiber per day helps the patients suffering from familial adenomatous polyposis to prevent the occurrence and the development of rectum polyps. Patients suffering from nonfamilial adenomatous polyposis can avoid polyps reacquisition after their removal by means of surgical excision.

#### **Directions For Use**

You can add the fiber to any first or second course, side dish, vegetable caviar, vegetable or fruit salad, quark, milk, kefir (butter milk), yoghurt, juice, fruit puree, and dessert. Also use it to cook buns and bread.

You can normalize the intestine functioning within only 3 or 4 days by adding oat bran fiber to your food. None of the medicines can provide you with such results.

Fiber of oat bran is very useful and can replace bread as it contains no yeast and white flour.

Steam the fiber with water and drain it in half an hour. Take a swollen fiber with warm water or just add it to your dish as indicated above.

Take 1 or 2 teaspoons of this fiber per day just for preventive purposes. Those children who reach by 2 years of age can take this fiber. Daily intake of fiber is prescribed strictly individually taking into consideration stool frequency — it is desirable that a person should go to the toilet 2 times per day when taking fiber. Begin taking 1 teaspoon 3 times per day. Then you can increase your intake to 1 tablespoon 3 times per day.

When taking fiber of oat bran, drink a lot of water (about 6 glasses per day).

#### **VEGETABLE FIBER OF BUCKWHEAT BRAN**

Buckwheat is the best cereal (after whole rice) for the human being health. It is the only cereal with high content of rutin antioxidant that improves the blood circulation, prevents the increase of cholesterol level, and vascular occlusion.

It is recommended to take this fiber as a dietary supplement to the food ration so that to normalize digestion and gastrointestinal tract functioning, to reduce the blood sugar level, to prevent thrombosis, to normalize metabolism and cholesterol level in the blood, to enhance the immune system and body defenses, to improve overall condition of the body, to prevent cardio-vascular diseases, to normalize prostate gland functioning, to release toxins from the body, to prevent colon cancer and dysbacteriosis, and to normalize hormonal balance.

Fiber of buckwheat bran helps to lose weight, to reduce obesity, to normalize weight, and to facilitate active longevity. Vitamins contained in buckwheat bran improve the skin condition, speed up tissue regeneration, and improve the growth of hair and nails. Also, they are essential for preserving eyesight and the immune system.

It is recommended to take this fiber at high physical and psychoemotional loads as an additional source of food fibers, macro- and microelements, protein, and vitamins. Also, it is taken to provide optimal dietetic conditions of functioning of digestive system, liver, and pancreas; to normalize motor function of the intestine, to support normal functioning of cardio-vascular system, to prevent atherosclerosis, obesity, haemorrhoids, thrombophlebitis, ischemic heart disease and diabetes.

This fiber cleanses the body from bile acids and toxins, releases nitrates that enter the body when





eating fruits and vegetables.

The fiber of buckwheat bran is rich in energy; it is an excellent antioxidant and radioprotector. It also facilitates better digestion and normalizes the intestine microflora. The fiber cleanses your body by means of soaking up all excessive substances that have accumulated over the years. Once in the intestine, this fiber swells and acquires the ability to sorb and remove from the body toxins, wastes, excessive cholesterol, ammonia, and bile pigments.

You can add the fiber to any first or second course, porridge, vegetable caviar, vegetable or fruit salad, quark, milk, kefir (butter milk), yoghurt, juice, fruit puree, and dessert. Also use it to cook buns and bread. It is perfect for au gratin.

Fiber of buckwheat bran is very useful and can replace bread as it contains no yeast and white flour.

#### Health Benefits of Vegetable Fiber of Buckwheat Bran

Buckwheat bran fiber is valued at most for the high content of food fibers. This fiber helps to regulate the intestine functioning, to improve microflora, and to lose weight. It is very useful for health and slim figure.

Bran consists of floral cover (peel) of the grain, grain germ, and aleurone layer of the grain. It is bran, which contains the most useful things that may be found in the grain itself. Bran contains 90% of biologically active components of the whole grain. Meanwhile, top-grade flour is a pure starch that has no living cells or microelements necessary for our body.

Buckwheat is the best cereal (after whole rice) for the human being health. Buckwheat bran reduces capillary fragility and permeability, strengthens blood vessels, balances nervous system, and helps to treat liver diseases. They are useful at acute bronchitis and bronchiectasis. It is the only cereal with high content of rutin antioxidant that improves the blood circulation, prevents the increase of cholesterol level, and vascular occlusion.

Regular consumption of fiber of buckwheat bran helps to reduce cholesterol level and sugar level in the blood. Also, fiber of buckwheat bran can arrange biliary excretion at gallbladder dyskinesia, and helps to get rid of constipations. Fiber of buckwheat bran removes detrimental compounds of heavy metals from the body.

#### Fiber of Buckwheat Bran to Lose Weight

This fiber is very useful for those people suffering from overweight; it helps to lose weight, and to get a slim figure. Fiber-rich food is absorbed more slowly and provides feeling of fullness for a longer time. Fiber of bran enhances the intestine peristalsis thus reducing absorption of nutrients and consequently of calorie content of food.

Furthermore, this fiber swells in the intestine and increases in volume thus giving a feeling of fullness and preserving people from overeating and gaining excess weight, and further obesity.

Fiber of buckwheat bran contains B-group vitamins, vitamin A, and vitamin E. It also contains microelements that are needed for normal metabolic processes in the body. Such microelements are as follows: potassium, calcium, fluorine, copper, zinc, magnesium, selenium, chromium, etc. Bran can be classified as health food product. Many valuable minerals are destroyed in the process of grain milling. As a rule, those who like pastries have got hyperacidity. If food is cooked with using uncleaned grain or bran, it helps to prevent constipations, and such concomitant diseases as: haemorrhoids, obesity, thrombophlebitis, ischemic heart disease, diabetes, and so on.

#### Fiber of Buckwheat Bran to Struggle Against Obesity and Diabetes

Vegetable fibers, which are contained in large numbers in bran, are poorly digested. So, people do

not feel hungry for a longer time. That is why the fiber of buckwheat bran is so popular among people suffering from excess weight. Also, this fiber has low nutrition value. When passing through the intestine, the fiber swells and forms a soft mass that removes decomposition products and carcinogens from the intestine. Due to this, the fiber of buckwheat bran can reduce the blood sugar level and cholesterol level.

The fiber of buckwheat bran is recommended as an effective supplement to patients suffering from diabetes. Regular consumption of this fiber restores metabolism and reduces the blood sugar level.

It slows down the absorption of carbohydrates reducing thereby the speed of increasing of the blood glucose level. Therefore, regular consumption of this fiber is useful for those people suffering from diabetes (i.e. the fiber of buckwheat bran included to the diabetics food ration reduces consumption of medicines containing insulin).

Research data show that taking fiber of buckwheat bran at diabetes reduces the increase of blood glucose level after eating. Consequently, there is no need to take insulin and other anti-diabetic medicines.

#### **Fiber of Buckwheat Bran to Provide Normal Functioning of Cardio-Vascular System**

As fiber of buckwheat bran contains vitamins B3, B6, and B9, the cholesterol level in the blood is significantly reduced, thus preventing the development of atherosclerotic plaques on the vessel walls. Vitamin B1 contained in buckwheat bran transforms into cocarboxylase that positively affects many functions of cardio-vascular system. Potassium and magnesium also contained in buckwheat bran are very important for our heart and vessels. Therefore, regular consumption of this fiber is a perfect preventive measure against atherosclerosis, tachycardia, arrhythmia, coronary artery disease, myocardial infarction, and stroke.

Scientists insist that people could live longer and feel better if they had eaten more food containing fiber of rude and hard digested food. It is bran, which is exactly such food. As it contains a lot of fiber, it is a hard digested product.

#### **Health Benefits of Fiber of Buckwheat Bran for Male and Female Body**

People consuming more vegetable fiber are less exposed to heart diseases compared to those consuming far too little of fiber. The fact that bran has therapeutic and protective properties is associated with a high number of vitamins, minerals, antioxidants, and phytonutrients contained in it. Furthermore, some vegetable lignines contained in bran are phytoestrogens in fact. Regular consumption of phytoestrogens prevents the occurrence of neoplasms related to hormones.

Buckwheat bran is rich in vitamin B3 and vitamin B6 as well as such polyunsaturated acids as OMEGA-3 and OMEGA-6. Therefore, bran as well as flax seed oil normalizes estrogens level in female body. Consumption of bran is very useful for prevention and treatment of breast cancer, endometriosis, hysteromyoma, and other gynaecological diseases.

Vitamin-E rich buckwheat bran (a vitamin of youthfulness) included into men's food ration helps to restore potency and preserve men's health for years.

Regular consumption of fiber of buckwheat bran removes detrimental compounds of heavy metals from the body. Fiber of buckwheat bran normalizes the intestine functioning and reduces the development of colon tumors. Thanks to this fiber the digestion process is shifted below that area in colon where usually a tumor appears.

It seems that fiber of buckwheat bran is useful almost in everything. So it is. Counterindications can occur only at acute phase of gastritis, polyps, and gastric ulcer. It is better stop consuming fiber for a while at acute phase until recurrence ends.

If you have increased feeling of hunger at nights but you can't eat after 6 PM because of the diet prescribed by your dietitian, just drink a glass of kefir (butter milk) mixed with a handful of buckwheat bran fiber to relieve hunger.

Bran-rich food facilitates a formation of a special substance that prevents the cells damage. Nutritionists say that we have to take 30g of food fibers per day.

Food fibers give a feeling of fullness. They also stimulate biliary excretion, and intestine motor function; thin the intestine content as well as form and increase the number of fecal mass and effect positively on the intestine microflora, and reduce effectively cholesterol level in the blood.

The lack of fiber in today food ration is one of the causes of constipations, and the main factor of the development of colon and rectal polyps, and haemorrhoids.

Fiber of buckwheat bran is necessary for normal functioning of digestive system; it is essential for prevention of cancer diseases. Buckwheat bran is rich in fiber that can retain a lot of water thanks to its pore structure. Once in the intestine, it thins fecal masses and facilitates their active movement in the colon. Thanks to this property, the fiber is useful for those people suffering from frequent constipations.

Fiber of buckwheat bran contains such substances that excite the intestine peristalsis and facilitate the wastes removal. The most important microelement for the human being is iron that is left in bran too (unlike flour).

The most important bran property is an ability to retain water. For example, 1g of bran can retain 5g of water. It enhances colon peristalsis and increases the volume of fecal masses. The fiber shortens the contact of harmful substances and metabolism byproducts with colon mucous membrane in the body, thus bringing to a minimum the development of colon cancer and haemorrhoids. Furthermore, the fiber is a perfect breeding ground for useful intestinal flora. Due to that fact, the consumption of fiber of buckwheat bran is an effective method of dysbacteriosis prevention and treatment.

B-group vitamins contained in buckwheat bran facilitate digestion (vitamins B2 and B3 have a beneficial effect on mucous membrane of the whole alimentary tract, while vitamin B3 stimulates gastric juice production and the intestine motor function as well as increases activity of liver, and pancreas). Fiber of buckwheat bran normalizes biliary excretion and absorbs harmful bile acids and bad cholesterol formed in the result of enterohepatic circulation of bile. This is the reason why you should take fiber of buckwheat bran every day so that to prevent and treat biliary dyskinesia, cholelithiasis, and other diseases of liver, gall bladder, and bile ducts.

Therapeutic and nutritious benefits of fiber of buckwheat bran are immeasurable. It cleanses the intestine perfectly, and this is a key to health and longevity.

Since olden time, steamed buckwheat bran in Rus has been used in folk medicine as purgative agent as well as the agent that normalizes digestion, and a softening agent at psoriasis, eczema, and skin dryness. Also, it was used at poisonings and for therapy tanks. Archiaters in France used bran as sure remedy to cure heart diseases. Nowadays, buckwheat bran is used in cosmetology to prepare face masque for fading skin.

Consumption of 20–30g of this fiber per day helps the patients suffering from familial adenomatous polyposis to prevent the occurrence and the development of rectum polyps. Patients suffering from nonfamilial adenomatous polyposis can avoid polyps reacquisition after their removal by means of surgical excision.

### **Directions For Use**

You can add the fiber to any first or second course, side dish, vegetable caviar, vegetable or fruit salad, quark, milk, kefir (butter milk), yoghurt, juice, fruit puree, and dessert. Also use it to cook buns



and bread.

You can normalize the intestine functioning within only 3 or 4 days by adding buckwheat bran fiber to your food. None of the medicines can provide you with such results.

Fiber of buckwheat bran is very useful and can replace bread as it contains no yeast and white flour.

Steam the fiber with water and drain it in half an hour. Take a swollen fiber with warm water or just add it to your dish as indicated above.

Take 1 or 2 teaspoons of this fiber per day just for preventive purposes.

Those children who reach by 2 years of age can take this fiber. Daily intake of fiber is prescribed strictly individually taking into consideration stool frequency — it is desirable that a person should go to the toilet 2 times per day when taking fiber. Begin taking 1 teaspoon 3 times per day. Then you can increase your intake to 1 tablespoon 3 times per day.

When taking fiber of bran, drink a lot of water (about 6 glasses per day).

#### VEGETABLE FIBER OF WHEAT BRAN

It is recommended to take this fiber as a dietary supplement to the food ration so that to normalize digestion and gastrointestinal tract functioning, to reduce the blood sugar level, to prevent thrombosis, to normalize metabolism and cholesterol level in the blood, to enhance the immune system and body defenses, to improve overall condition of the body, to prevent cardio-vascular diseases, to normalize prostate gland functioning, to release toxins from the body, to prevent colon cancer and dysbacteriosis, and to normalize hormonal balance.

This fiber helps to lose weight, to reduce obesity, to normalize weight, and to facilitate active longevity. Vitamins contained in wheat bran improve the skin condition, speed up tissue regeneration, and improve the growth of hair and nails. Also, they are essential for preserving eyesight and the immune system.

It is recommended to take this fiber at high physical and psychoemotional loads as an additional source of food fibers, macro- and microelements, protein, and vitamins. Also, it is taken to provide optimal dietetic conditions of functioning of digestive system, liver, and pancreas; to normalize motor function of the intestine, to support normal functioning of cardio-vascular system, to prevent atherosclerosis, obesity, haemorrhoids, thrombophlebitis, ischemic heart disease, and diabetes.

This fiber cleanses the body from bile acids and toxins, releases nitrates that enter the body when eating fruits and vegetables.

The fiber of wheat bran is rich in energy; it is an excellent antioxidant and radioprotector. It also facilitates better digestion and normalizes the intestine microflora. The fiber cleanses your body by means of soaking up all excessive substances that have accumulated over the years. Once in the intestine, this fiber swells and acquires the ability to sorb and remove from the body toxins, wastes, excessive cholesterol, ammonia, and bile pigments.

You can add the fiber to any first or second course, porridge, vegetable caviar, vegetable or fruit salad, quark, milk, kefir (butter milk), yoghurt, juice, fruit puree, and dessert. Also use it to cook buns and bread. It is perfect for au gratin.

Fiber of wheat bran is very useful and can replace bread as it contains no yeast and white flour.

#### Health Benefits of Vegetable Fiber of Wheat Bran

Wheat bran fiber is valued at most for the high content of food fibers.

This fiber helps to regulate the intestine functioning, to improve microflora, and to lose weight. It





is very useful for health and slim figure. Bran consists of floral cover (peel) of the grain, grain germ, and aleurone layer of the grain. It is bran, which contains the most useful things that may be found in the grain itself. Bran contains 90% of biologically active components of the whole grain.

Meanwhile, top-grade flour is a pure starch that has no living cells or microelements necessary for our body.

Regular consumption of fiber of wheat bran helps to reduce cholesterol level and sugar level in the blood. Also, this fiber can arrange biliary excretion at gallbladder dyskinesia, and helps to get rid of constipations. Fiber of wheat bran removes detrimental compounds of heavy metals from the body.

#### **Fiber of Wheat Bran to Lose Weight**

This fiber is very useful for those people suffering from overweight; it helps to lose weight, and to get a slim figure. Fiber-rich food is absorbed more slowly and provides feeling of fullness for a longer time. Fiber of bran enhances the intestine peristalsis thus reducing absorption of nutrients and consequently of calorie content of food.

Furthermore, this fiber swells in the intestine and increases in volume thus giving a feeling of fullness and preserving people from overeating and gaining excess weight, and further obesity.

Fiber of wheat bran contains B-group vitamins, vitamin A, and vitamin E. It also contains microelements that are needed for normal metabolic processes in the body. Such microelements are as follows: potassium, calcium, fluorine, cooper, zinc, magnesium, selenium, chromium, etc. Bran can be classified as health food product. Many valuable minerals are destroyed in the process of grain milling. As a rule, those who like pastries have got hyperacidity. If food is cooked with using uncleaned grain or bran, it helps to prevent constipations, and such concomitant diseases as: haemorrhoids, obesity, thrombophlebitis, ischemic heart disease, diabetes, and so on.

#### **Fiber of Wheat Bran to Struggle Against Obesity and Diabetes**

Vegetable fibers, which are contained in large numbers in bran, are poorly digested. So, people do not feel hungry for a longer time. That is why the fiber of wheat bran is so popular among people suffering from excess weight. Also, this fiber has low nutrition value. When passing through the intestine, the fiber swells and forms a soft mass that removes decomposition products and carcinogens from the intestine. Due to this the fiber of wheat bran can reduce the blood sugar level and cholesterol level.

It is recommended as an effective supplement to patients suffering from diabetes. Regular consumption of this fiber restores metabolism and reduces the blood sugar level.

It slows down the absorption of carbohydrates reducing thereby the speed of increasing of the blood glucose level. Therefore, regular consumption of this fiber is useful for those people suffering from diabetes (i.e. the fiber of wheat bran included to the diabetics food ration reduces consumption of medicines containing insulin).

Research data show that taking fiber of wheat bran at diabetes reduces the increase of blood glucose level after eating. Consequently, there is no need to take insulin and other anti-diabetic medicines.

#### **Fiber of Wheat Bran to Provide Normal Functioning of Cardio-Vascular System**

As fiber of wheat bran contains vitamins B3, B6, and B9, the cholesterol level in the blood is significantly reduced, thus preventing the development of atherosclerotic plaques on the vessel walls.

Vitamin B1 contained in wheat bran transforms into cocarboxylase that positively affects many functions of cardio-vascular system. Potassium and magnesium also contained in wheat bran are very important for our heart and vessels. Therefore, regular consumption of this fiber is a perfect preventive

measure against atherosclerosis, tachycardia, arrhythmia, coronary artery disease, myocardial infarction, and stroke.

Scientists insist that people could live longer and feel better if they had eaten more food containing fiber of rude and hard digested food. It is bran, which is exactly such food. Bran contains a lot of fiber, so it is a hard digested product.

### **Health Benefits of Fiber of Wheat Bran for Male and Female Body**

Wheat bran is rich in vitamin B3 and vitamin B6 as well as such polyunsaturated acids as OMEGA-3 and OMEGA-6. Therefore, bran as well as flax seed oil normalizes estrogens level in female body. Consumption of bran is very useful for prevention and treatment of breast cancer, endometriosis, hysteromyoma, and other gynaecological diseases.

Vitamin-E rich wheat bran (a vitamin of youthfulness) included into men's food ration helps to restore potency and preserve men's health for years.

Regular consumption of fiber of wheat bran removes detrimental compounds of heavy metals from the body. Fiber of wheat bran normalizes the intestine functioning and reduces the development of colon tumors. Thanks to this fiber the digestion process is shifted below that area in colon where usually a tumor appears.

It seems that fiber of wheat bran is useful almost in everything. So it is. Counterindications can occur only at acute phase of gastritis, polyps, and gastric ulcer. It is better stop consuming fiber for a while at acute phase until recurrence ends.

If you have increased feeling of hunger at nights but you can't eat after 6 PM because of the diet prescribed by your dietitian, just drink a glass of kefir (butter milk) mixed with a handful of wheat bran fiber to relieve hunger.

Bran-rich food facilitates a formation of a special substance that prevents the cells damage. Nutritionists say that we have to take 30g of food fibers per day. Food fibers give a feeling of fullness.

They also stimulate biliary excretion, and intestine motor function; thin the intestine content as well as form and increase the number of fecal mass and effect positively on the intestine microflora, and reduce effectively cholesterol level in the blood. The lack of fiber in today food ration is one of the causes of constipations, and the main factor of the development of colon and rectal polyps, and haemorrhoids.

Fiber of wheat bran is necessary for normal functioning of digestive system; it is essential for prevention of cancer diseases. Wheat bran is rich in fiber that can retain a lot of water thanks to its pore structure. Once in the intestine, it thins fecal masses and facilitates their active movement in the colon. Thanks to this property, the fiber is useful for those people suffering from frequent constipations.

Fiber of wheat bran contains such substances that excite the intestine peristalsis and facilitate the wastes removal. The most important microelement for the human being is iron that is left in bran too (unlike flour).

The most important bran property is an ability to retain water. For example, 1g of bran can retain 5g of water. It enhances colon peristalsis and increases the volume of fecal masses. The fiber shortens the contact of harmful substances and metabolism byproducts with colon mucous membrane in the body, thus bringing to a minimum the development of colon cancer and haemorrhoids.

Furthermore, the fiber is a perfect breeding ground for useful intestinal flora. Due to that fact, the consumption of fiber of wheat bran is an effective method of dysbacteriosis prevention and treatment.

B-group vitamins contained in wheat bran facilitate digestion (vitamins B2 and B3 have a beneficial effect on mucous membrane of the whole alimentary tract, while vitamin B3 stimulates gastric juice

production and the intestine motor function as well as increases activity of liver, and pancreas). Fiber of wheat bran normalizes biliary excretion and absorbs harmful bile acids and bad cholesterol formed in the result of enterohepatic circulation of bile. This is the reason why you should take fiber of wheat bran every day so that to prevent and treat biliary dyskinesia, cholelithiasis, and other diseases of liver, gall bladder, and bile ducts.

Therapeutic and nutritious benefits of fiber of wheat bran are immeasurable. It cleanses the intestine perfectly, and this is a key to health and longevity.

Since olden time, steamed wheat bran in Rus has been used in folk medicine as purgative agent as well as the agent that normalizes digestion, and a softening agent at psoriasis, eczema, and skin dryness. Also, it was used at poisonings and for therapy tanks. Archiaters in France used bran as sure remedy to cure heart diseases. Nowadays, wheat bran is used in cosmetology to prepare face masque for fading skin.

Consumption of 20–30g of this fiber per day helps the patients suffering from familial adenomatous polyposis to prevent the occurrence and the development of rectum polyps. Patients suffering from nonfamilial adenomatous polyposis can avoid polyps reacquisition after their removal by means of surgical excision.

#### **Directions For Use**

You can add the fiber to any first or second course, side dish, vegetable or fruit salad, quark, milk, kefir (butter milk), yoghurt, juice, fruit puree, and dessert. Also use it to cook buns and bread.

You can normalize the intestine functioning within only 3 or 4 days by adding wheat bran fiber to your food. None of the medicines can provide you with such results.

Fiber of wheat bran is very useful and can replace bread as it contains no yeast and white flour.

Steam the fiber with water and drain it in half an hour. Take a swollen fiber with warm water or just add it to your dish as indicated above.

Take 1 or 2 teaspoons of this fiber per day just for preventive purposes. Those children who reach by 2 years of age can take this fiber. Daily intake of fiber is prescribed strictly individually taking into consideration stool frequency — it is desirable that a person should go to the toilet 2 times per day when taking fiber. Begin taking 1 teaspoon 3 times per day. Then you can increase your intake to 1 tablespoon 3 times per day.

When taking fiber of bran, drink a lot of water (about 6 glasses per day).

#### **VEGETABLE FIBER OF BARLEY BRAN**

It is recommended to take this fiber as a dietary supplement to the food ration so that to normalize digestion and gastrointestinal tract functioning, to reduce the blood sugar level, to prevent thrombosis, to normalize metabolism and cholesterol level in the blood, to enhance the immune system and body defenses, to improve overall condition of the body, to prevent cardio-vascular diseases, to normalize prostate gland functioning, to release toxins from the body, to prevent colon cancer and dysbacteriosis, and to normalize hormonal balance.

This fiber helps to lose weight, to reduce obesity, to normalize weight, and to facilitate active longevity.

Barley bran contains easily digestible and active vitamins A, D, E, PP, and K as well as B-group vitamins, polysaccharides, amino acids, minerals, and natural antibiotic gordecin. Vitamins contained in barley bran improve the skin condition, speed up tissue regeneration, and improve the growth of hair and nails. Also, they are essential for preserving eyesight and the immune system.

Barley bran is rich in such polyunsaturated fatty acids as OMEGA-3 and OMEGA-6. Therefore, bran as well as flax seed oil normalizes estrogens level in female body. Consumption of bran is very useful for prevention and treatment of breast cancer, endometriosis, hysteromyoma, and other gynaecological diseases. Barley bran helps men to restore potency and preserve their health for years.

It is recommended to take this fiber at high physical and psychoemotional loads as an additional source of food fibers, macro- and microelements, protein, and vitamins. Also, it is taken to provide optimal dietetic conditions of functioning of digestive system, liver, and pancreas; to normalize motor function of the intestine, to support normal functioning of cardio-vascular system, to prevent atherosclerosis, obesity, haemorrhoids, thrombophlebitis, ischemic heart disease, and diabetes.

This fiber cleanses the body from bile acids and toxins, releases nitrates that enter the body when eating fruits and vegetables.

The fiber of barley bran is rich in energy; it is an excellent antioxidant and radioprotector. It also facilitates better digestion and normalizes the intestine microflora. The fiber cleanses your body by means of soaking up all excessive substances that have accumulated over the years. Once in the intestine, this fiber swells and acquires the ability to sorb and remove from the body toxins, wastes, excessive cholesterol, ammonia, and bile pigments.

You can add the fiber to any first or second course, porridge, vegetable caviar, vegetable or fruit salad, quark, milk, kefir (butter milk), yoghurt, juice, fruit puree, and dessert. Also use it to cook buns and bread. It is perfect for au gratin.

Fiber of barley bran is very useful and can replace bread as it contains no yeast and white flour.

#### Health Benefits of Vegetable Fiber of Barley Bran

Barley bran fiber is valued at most for the high content of food fibers. This fiber helps to regulate the intestine functioning, to improve microflora, and to lose weight. It is very useful for health and slim figure.

Bran consists of floral cover (peel) of the grain, grain germ, and aleurone layer of the grain. It is bran, which contains the most useful things that may be found in the grain itself. Bran contains 90% of biologically active components of the whole grain. Meanwhile, top-grade flour is a pure starch that has no living cells or microelements necessary for our body.

Regular consumption of fiber of barley bran helps to reduce cholesterol level and sugar level in the blood. Also, fiber of barley bran can arrange biliary excretion at gallbladder dyskinesia, and helps to get rid of constipations. Fiber of barley bran removes detrimental compounds of heavy metals from the body.

#### Fiber of Barley Bran to Lose Weight

This fiber is very useful for those people suffering from overweight; it helps to lose weight, and to get a slim figure. Fiber-rich food is absorbed more slowly and provides feeling of fullness for a longer time. Fiber of bran enhances the intestine peristalsis thus reducing absorption of nutrients and consequently of calorie content of food.

Furthermore, this fiber swells in the intestine and increases in volume thus giving a feeling of fullness and preserving people from overeating and gaining excess weight, and further obesity.

Fiber of barley bran contains B-group vitamins, vitamin A, and vitamin E. It also contains microelements that are needed for normal metabolic processes in the body. Such microelements are as follows: potassium, calcium, fluorine, copper, zinc, magnesium, selenium, chromium, etc. Bran can be classified as health food product. Many valuable minerals are destroyed in the process of grain milling. As a rule, those who like pastries have got hyperacidity. If food is cooked with using uncleaned grain or



bran, it helps to prevent constipations, and such concomitant diseases as: haemorrhoids, obesity, thrombophlebitis, ischemic heart disease, diabetes, and so on.

### **Fiber of Barley Bran to Struggle Against Obesity and Diabetes**

Vegetable fibers, which are contained in large numbers in bran, are poorly digested. So, people do not feel hungry for a longer time. That is why the fiber of barley bran is so popular among people suffering from excess weight. Also, this fiber has low nutrition value. When passing through the intestine, the fiber swells and forms a soft mass that removes decomposition products and carcinogens from the intestine. Due to this, the fiber of barley bran can reduce the blood sugar level and cholesterol level.

The fiber of barley bran is recommended as an effective supplement to patients suffering from diabetes. Regular consumption of this fiber restores metabolism and reduces the blood sugar level.

It slows down the absorption of carbohydrates reducing thereby the speed of increasing of the blood glucose level. Therefore, regular consumption of this fiber is useful for those people suffering from diabetes (i.e. the fiber of barley bran included to the diabetics food ration reduces consumption of medicines containing insulin).

Research data show that taking fiber of barley bran at diabetes reduces the increase of blood glucose level after eating. Consequently, there is no need to take insulin and other anti-diabetic medicines.

### **Fiber of Barley Bran to Provide Normal Functioning of Cardio-Vascular System**

Barley bran contains easily digestible and active vitamins A, D, E, PP, and K as well as B-group vitamins, polysaccharides, amino acids, minerals, and natural antibiotic gordecin.

As fiber of barley bran contains vitamins B3, B6, and B9, the cholesterol level in the blood is significantly reduced, thus preventing the development of atherosclerotic plaques on the vessel walls.

Vitamin B1 contained in barley bran transforms into cocarboxylase that positively affects many functions of cardio-vascular system. Potassium and magnesium also contained in barley bran are very important for our heart and vessels. Therefore, regular consumption of this fiber is a perfect preventive measure against atherosclerosis, tachycardia, arrhythmia, coronary artery disease, myocardial infarction, and stroke.

Scientists insist that people could live longer and feel better if they had eaten more food containing fiber of rude and hard digested food. It is bran, which is exactly such food. Bran contains a lot of fiber, so it is a hard digested product.

### **Health Benefits of Fiber of Barley Bran for Male and Female Body**

It is recommended to take barley bran broth in the following cases: – at inflammatory intestinal diseases; – as a strengthening agent after abdominal surgery; – as cough softening agent at bronchitis and other respiratory diseases; – as a special diuretic and anti-inflammatory agent at nephritis and nephrosis; – as a way of inducing lactation of breastfeeding mothers.

Barley bran broth is taken as a dietetic preventive agent at intestinal diseases. Pour 1 tablespoon of barley bran with 1 glass of water, let it stand for 4–5 hours, then boil for 10 minutes, and drain. Take 1 tablespoon of broth 4–5 times per day.

People consuming more vegetable fiber are less exposed to heart diseases compared to those consuming far too little of fiber. The fact that bran has therapeutic and protective properties is associated with a high number of vitamins, minerals, antioxidants, and phytonutrients contained in it. Furthermore, some vegetable lignines contained in bran are phytoestrogens in fact. Regular consumption of phytoestrogens prevents the occurrence of neoplasms related to hormones.

Barley is one of the best cereals that strengthens the body and restores vitality. It also facilitates longevity.

Barley bran is rich in vitamin B3 and vitamin B6 as well as such polyunsaturated acids as OMEGA-3 and OMEGA-6. Therefore, bran as well as flax seed oil normalizes estrogens level in female body. Consumption of bran is very useful for prevention and treatment of breast cancer, endometriosis, hysteromyoma, and other gynaecological diseases.

Vitamin-E rich barley bran (a vitamin of youthfulness) included into men's food ration helps to restore potency and preserve men's health for years.

Regular consumption of fiber of barley bran removes detrimental compounds of heavy metals from the body. Fiber of barley bran normalizes the intestine functioning and reduces the development of colon tumors. Thanks to this fiber the digestion process is shifted below that area in colon where usually a tumor appears.

It seems that fiber of barley bran is useful almost in everything. So it is. Counterindications can occur only at acute phase of gastritis, polyps, and gastric ulcer. It is better stop consuming fiber for a while at acute phase until recurrence ends.

If you have increased feeling of hunger at nights but you can't eat after 6 PM because of the diet prescribed by your dietitian, just drink a glass of kefir (butter milk) mixed with a handful of barley bran fiber to relieve hunger.

Bran-rich food facilitates a formation of a special substance that prevents the cells damage. Nutritionists say that we have to take 30g of food fibers per day. Food fibers give a feeling of fullness.

They also stimulate biliary excretion, and intestine motor function; thin the intestine content as well as form and increase the number of fecal mass and effect positively on the intestine microflora, and reduce effectively cholesterol level in the blood. The lack of fiber in today food ration is one of the causes of constipations, and the main factor of the development of colon and rectal polyps, and haemorrhoids.

Fiber of barley bran is necessary for normal functioning of digestive system; it is essential for prevention of cancer diseases. Barley bran is rich in fiber that can retain a lot of water thanks to its pore structure.

Once in the intestine, it thins fecal masses and facilitates their active movement in the colon. Thanks to this property, the fiber is useful for those people suffering from frequent constipations.

Fiber of barley bran contains such substances that excite the intestine peristalsis and facilitate the wastes removal. The most important microelement for the human being is iron that is left in bran too (unlike flour).

The most important bran property is an ability to retain water. For example, 1g of bran can retain 5g of water. It enhances colon peristalsis and increases the volume of fecal masses. The fiber shortens the contact of harmful substances and metabolism byproducts with colon mucous membrane in the body, thus bringing to a minimum the development of colon cancer and haemorrhoids.

Furthermore, the fiber is a perfect breeding ground for useful intestinal flora. Due to that fact, the consumption of fiber of barley bran is an effective method of dysbacteriosis prevention and treatment.

B-group vitamins contained in barley bran facilitate digestion (vitamins B2 and B3 have a beneficial effect on mucous membrane of the whole alimentary tract, while vitamin B3 stimulates gastric juice production and the intestine motor function as well as increases activity of liver, and pancreas). Fiber of barley bran normalizes biliary excretion and absorbs harmful bile acids and bad cholesterol formed in the result of enterohepatic circulation of bile. This is the reason why you should take fiber of barley bran

every day so that to prevent and treat biliary dyskinesia, cholelithiasis, and other diseases of liver, gall bladder, and bile ducts.

Therapeutic and nutritious benefits of fiber of barley bran are immeasurable. It cleanses the intestine perfectly, and this is a key to health and longevity.

Since olden time, steamed barley bran in Rus has been used in folk medicine as purgative agent as well as the agent that normalizes digestion, and a softening agent at psoriasis, eczema, and skin dryness. Also, it was used at poisonings and for therapy tanks. Archiaters in France used bran as sure remedy to cure heart diseases. Nowadays, barley bran is used in cosmetology to prepare face masque for fading skin.

Consumption of 20–30g of this fiber per day helps the patients suffering from familial adenomatous polyposis to prevent the occurrence and the development of rectum polyps. Patients suffering from nonfamilial adenomatous polyposis can avoid polyps reacquisition after their removal by means of surgical excision.

#### **Directions For Use**

You can add the fiber to any first or second course, side dish, vegetable caviar, vegetable or fruit salad, quark, milk, kefir (butter milk), yoghurt, juice, fruit puree, and dessert. Also use it to cook buns and bread.

You can normalize the intestine functioning within only 3 or 4 days by adding barley bran fiber to your food. None of the medicines can provide you with such results.

Fiber of barley bran is very useful and can replace bread as it contains no yeast and white flour.

Steam the fiber with water and drain it in half an hour. Take a swollen fiber with warm water or just add it to your dish as indicated above.

Take 1 or 2 teaspoons of this fiber per day just for preventive purposes. Those children who reach by 2 years of age can take this fiber. Daily intake of fiber is prescribed strictly individually taking into consideration stool frequency — it is desirable that a person should go to the toilet 2 times per day when taking fiber. Begin taking 1 teaspoon 3 times per day. Then you can increase your intake to 1 tablespoon 3 times per day.

When taking fiber of bran, drink a lot of water (about 6 glasses per day).

### **COMPOSITION AND USEFUL PROPERTIES OF AMARANTH FLOUR**

#### **AMARANTH FLOUR**

The value of amaranth is the wide use of all parts of the plant – from rootlets to seeds and their high nutritional value. Particularly useful are seeds – the amount of protein contained in them is much higher than in soy and wheat. This product is also appreciated for the content of amino acids, which greatly enhances its importance as a dietary supplement for vegetarians.

#### ***What else will make you to give preference to seeds of amaranth:***

- Squalene – improves the synthesis of vitamin D in the human body;
- Calcium, potassium, magnesium and iron will strengthen the heart and blood vessels, improve blood circulation;
- Dietary fibers serve as a kind of “broom” for cleansing from intestinal toxins, which in turn improves digestion;
- Oil and seeds of amaranth are used for the prevention of many diseases: eye, cancer,



strengthen women's health;

- Not missed the useful properties of plants and beauticians – masks using seed oil amaranth will help not only to put in order the skin of the face, but also to rejuvenate it, smoothing wrinkles and giving elasticity and healthy color.

#### BENEFIT FOR HEALTH

Amaranth seeds serve as an excellent source of calcium, iron, magnesium, phosphorus and potassium. Also, this is the only grain that contains vitamin C. All this serves as an excuse to talk about the need to include in the diet seeds of amaranth.

Undoubtedly, the most important aspect making seeds of amaranth so popular food of ancient peoples is a high concentration of protein. This means that by consuming the plant, the body can not only provide short-term needs for proteins, but also take care of creating protein reserves.

Regular consumption of proteins is the growth and development of cells, tissues, it is energy and proper metabolism. Approximately 13-18 percent of the chemical composition of amaranth is protein, which is significantly higher than the level of nutrient in other types of cereal crops. Even leaves of amaranth seeds contain proteins. In addition, the protein from this plant is called complete, since it contains a lysine-amino acid, which is absent in practically other vegetable proteins.

For the first time, the use of proteins from amaranth seeds was studied in Peru in the 1980s. During the study, children were given amaranth in the form of cereals and cereal. It turned out that this plant can be used as the main component of the children's diet. This allows to provide growing organisms with necessary proteins and other useful elements without large financial expenses.

Another study was held in Guatemala in 1993. The results of this experiment were similar to the results of the Peruvian one. Scientists again came to the conclusion that the amaranth protein is one of the most highly nutritious among all proteins of plant origin and is close in chemical composition to animal proteins.

And not so long ago, molecular biologists from Mexico began to investigate bioactive peptides in amaranth proteins. And in 2008, they found amaranth seeds in the lunazine peptide, which had previously been identified in soy. It is believed that lunazine is an anti-cancer substance, and also removes inflammation in chronic diseases (such as arthritis, gout and others), protects against diabetes, cardiac diseases, stroke.

Studies which were held over the past 14 years have proven the effectiveness of the grains of this plant in lowering cholesterol.

First in 1993, American scientists discovered that amaranth oil is very useful. Regular use of this product reduces the level of "bad" cholesterol.

In 2003, scientists from Ontario, Canada found that amaranth seeds served as an excellent source of phytosterols, which, when ingested into the human body, reduced the concentration of "bad" cholesterol. And in 2007, researchers found the benefits of amaranth for people with cardiovascular disease. It turned out that amaranth croup positively affects the condition of patients with coronary heart disease, hypertension. They have amaranth reduces the total level of cholesterol, regulates the concentration of triglycerides and "bad" cholesterol.

Gluten is the main protein in most cereals. It is responsible for the elasticity of the dough, the texture of baked goods and plays the role of a baking powder. But more and more people have appeared recently, to be not able to digest this protein as a result of autoimmune diseases. In this case, amaranth croup perfectly copes with the role of a substitute for gluten-containing cereals.





There are a number of advantages that make seeds of amaranth a component that has a beneficial effect on the health of the digestive system. High concentration of fiber improves the work of the gastrointestinal tract, it has a beneficial effect for the work of the intestines, promoting the effective absorption of nutrients by the walls of the colon.

With age, varicose veins affects more and more people. This disease not only worsens the appearance, but is a very dangerous violation of the vessels.

Amaranth products contain flavonoids, in particular rutin, which prevents varicose veins, strengthening the walls of the capillaries. In addition, the seeds of amaranth contain a sufficiently high concentration of ascorbic acid, and it is known to promote the production of collagen, a substance that restores and strengthens the walls of blood vessels.

Folic acid is especially important for the health of pregnant women. Deficiency of the substance can cause the development of the fetus. If the amaranth seeds appear in the diet of the future mother, you can not worry about the lack of folic acid.

Amaranth seeds contain amino acid lysine, which can not be produced independently by the body, but which is very necessary for a person. This substance contributes to better absorption of calcium and prevents premature baldness. The juice from the leaves of the shin works from the hair loss and for protection. It is used as a conditioner after washing. In addition, the amaranth seeds contain a component that prevents early hair graying.

Amaranth seeds are an excellent source of many vitamins, including A, C, E, K and B group. They act on the body as antioxidants, increase tone, regulate hormonal balance. Among the minerals contained in the plant there are – calcium, magnesium, copper, zinc, potassium, phosphorus. Working in a complex, they support the health and strength of bones and muscles, and also responsible for the adequate flow of most vital processes in the body. According to recent studies, amaranth is also capable of increasing the functionality of the immune system.

Amaranth is superior to wheat and other cereals by many characteristics, because this plant contains the largest amount of fatty acids. Amaranth is popular due to the fact that its composition includes only natural and natural substances. It is used in all areas of human life – from food to expensive cosmetics.

Amaranth seeds are a real pantry of protein and vegetable fats. From the seeds can be made the flour, which can be used for cooking any bakery products. Amaranth seeds contain a large amount of squalene – a substance that saturates the body with air and is a powerful immunoprotector. The seeds of amaranth are valued because they do not contain gluten, which is very important for people who lead a healthy lifestyle. Amaranth is used for the treatment of various diseases, as well as in cosmetology and animal husbandry.

#### AMARANTH SEEDS` USE TO COMBAT DISEASES

Even during the development of early civilizations, were observed the medicinal properties of the plant, they were used to get rid of many ailments. Among the people, the amaranth is credited with the miraculous property of prolonging life, while maintaining the body at an operative level. In Chinese medicine it has long been used to treat patients with cancer.

In today's practice, the following properties are attributed to a plant:

- The use of amaranth seeds for food, especially in the cold season, helps to strengthen the immune system, which in turn increases the body's resistance to infections and viruses.
- The use of amaranth in combination with traditional therapy increases the effectiveness of



combating malignant tumors, stops the growth of cancer cells. A regular use of seeds, allows you to reduce the risk of such ailments.

- Rapidly affects wounds and ulcers, difficult to heal, helps with burns.
- The plant is effectively, also for restoring the work of the gastrointestinal tract, in particular in the treatment of peptic ulcer and gastritis.
- Amaranth is also used in dentistry: stomatitis passes much faster after the use of this plant.

Amaranth oil and flour from seeds of amaranth have high healing properties. Their effectiveness is manifested in the fight against various skin diseases: eczema, psoriasis, dermatitis, acne, fungal infections. Oil acts as a moisturizing and protective agent for the skin of the face.

It is used as a remedy for liver diseases and, as a strengthening for the vessels and heart.

Men and women can also extract from the plant a separate benefit for themselves. Ground amaranth seeds are useful for women to restore the menstrual cycle, reduce pain during menstruation. In the period of menopause it helps to maintain the hormonal background at the proper level.

For men, the amaranth will help support male strength, prevent prostate disease and adenoma.

#### **Place of amaranth in treatment and prophylaxis of GIT diseases**

To prevent a disease is always easier than curing it. Prevention of diseases of the digestive tract is as follows:

- Balanced diet;
- Absence of bad habits;
- Regular periodic inspections.

As an preventive method, you can use amaranth. For this purpose, the seed of amaranth, amaranth oil, amaranth flour are suitable. Amaranth oil can be consumed both in its pure form and as a dressing for salads.

Adding amaranth in the usual dishes, you can not only add a “flavor” to its taste, but also warn yourself against the development of diseases of the gastrointestinal tract.

**Good results can be achieved by using amaranth oil in its pure form.** The oil is used on an empty stomach half an hour before meals in the amount of two tablespoons at a time. It has the following effect:

- Reduces the activity of bacteria that cause the disease (especially important for a stomach ulcer caused by a bacterium *Helikobakter Piloni*);
- Has a pronounced antibacterial and anti-inflammatory effect;
- Relieves spasms;
- Envelops the stomach, protecting the digestive system.

The effect of amaranth in the treatment of gastrointestinal diseases is directed directly at the regulation of digestive processes. Unlike antibiotics and other medications, amaranth acts on the body not so aggressively. Amaranth does not destroy harmful bacteria. It creates optimal conditions for intestinal health, improves the microflora, saturating the body with missing vitamins, micro- and macro elements.

Therapeutic properties of amaranth

**Most of all, medicinal uses are of oil from seeds of amaranth.** In practice, this oil has shown its effectiveness as an auxiliary substance in the treatment of inflammation of the oral cavity, such as stomatitis, periodontitis, tonsillitis.

**Also, amaranth oil is used for dermatitis and eczema and psoriasis.** This oil has anti-inflammatory properties and promotes wound healing.

The oil and seeds of amaranth has a beneficial effect on lipid metabolism in the body, which is very useful if you want to lose weight. In value, the amaranth oil is comparable to olive oil, also rich in unsaturated fatty acids and vitamins.

Porridge from the seeds of amaranth helps to restore strength after severe and prolonged illnesses.

With diseases of the mouth and throat, **amaranth oil is used as a rinse**, since it has anti-inflammatory and wound-healing properties.

Regular consumption of seeds of this plant and oil from them improves the work of the reproductive system in both men and women.

#### AMARANTH SEEDS FOR SLIMMING

Considering that the consumption of proteins liberates the so-called satiety hormone, which reduces appetite, amaranth is a faithful assistant to everyone who wants to lose weight. On the one hand, the fiber in the plant reduces appetite, on the other – a high concentration of protein also works to blunt the feeling of hunger. Together, this makes amaranth a unique plant for weight loss.

**Seeds of amaranth will be an excellent support during a diet for weight loss.** The protein contained in the plant, burns excess fats in the body, and promotes the strengthening and growth of muscle mass, preventing it from hanging. Losing weight also contributes to the hormone “saturation”, which is produced by the same protein – it suppresses excessive appetite.

The seeds of amaranth contain a small amount of salts and fats, its caloric value does not exceed 350 calories per 100 g. And the fiber, which is part of the seeds maintains a satiated state, and helps to exclude “harmful” snacks.

#### How to properly use amaranth seeds and get the most benefit from it?

One of the effective options is in the morning before breakfast. Dessert spoon of milled seeds pour a glass of water and drink. The result of this method is stabilization of the glucose level, and a feeling of satiety that will not allow you to overeat during breakfast.

A great benefit will be the use of amaranth before and after sports. Carbohydrates will add energy for productive exercise, and protein will restore muscles and reduce pain in them after physical exertion.

#### WHY IS IT BETTER TO GO ON A DIET WITH AN AMARANTH

Choosing a diet for weight loss with amaranth, you will not just lose weight, but in parallel improve the health and skin, and at the same time and rejuvenate the body. Therefore, amaranth in comparison with other dietary products has a lot of advantages.

Amaranth grain, and therefore the porridge itself is an invaluable source of squalene – a substance that is the main material of the skin. Since amaranth grain was forgotten for centuries, squalene was extracted only from the liver of deep-sea shark, and accordingly it was very expensive, as well as cosmetic products with its use. But in amaranth grain it is 7-8%, when you eat amaranth porridge or sprouted amaranth, squalene is actively absorbed by the body and renews the skin. And this means that amaranth is the most effective remedy for skin problems and diseases. Acne, acne, fat and dry skin, most serious skin diseases after a few weeks of consuming amaranth go away forever.

Most diets, despite the presence of fruits and salads in them are one-sided, and the body is deprived of the necessary substances for work. Naturally, it takes them from internal reserves, as a result of which weight loss begins. But such an approach is harmful to health, most nutritionists in recent years tend to believe that weight loss should not be due to depriving the body of vitamins or

nutrients, but by accelerating the metabolism. This gives a permanent result and does not harm the body. Amaranth, a dietary dish, but at the same time it has all the substances necessary for the body substance. Most researchers compare the composition of amaranth with mother's milk, because it contains nutrients, a full complex of vitamins, a complex of minerals. But thanks to this composition, the amaranth not only saturates the body, but also stimulates the metabolism, and removes slag and heavy metals. In addition, amaranth is not deposited in fatty deposits, but completely absorbed by the body. As a result, on a diet with an amaranth you will feel great, and you will not have a breakdown, as it is often the case with hard diets.

**Amaranth does not contain gluten**, so it is suitable for anyone. In addition, the gluten-free diet has shown its effectiveness both in treating the same with losing weight. In medical centers, a gluten-free diet is often used, even if the patient does not have gluten intolerance. As practice has shown, the health of patients improves significantly more quickly. Therefore, the gluten-free diet has proven to be effective.

Weight loss is primarily due to the fact that you begin to consume fewer calories. But if you just start a diet, the temptation to eat a yummy stuff will be very great. Gluten-free diet, reduces appetite, as it is proved by nutritionists. Therefore, after a week of refusal from gluten, you can look calmly at such delicious but at the same time harmful to health and sweets figures, and begin to actively lose weight without harmful consequences for the body in a natural way.

The best results gluten-free diet provides in combination with exercise. So you burn more calories and at the same time greatly improve your figure. By giving up gluten and starting to exercise a little, you will achieve tremendous results and will be able to throw off 8-9 kilograms per month, and this will not be a temporary, but a permanent result.

## MUSTARD POWDER

Mustard powder is used in neuritis, neuralgias, sciatica, bronchitis, severe hypothermia, for the prevention of colds, hypertension, rheumatism. In chronic rhinitis, colds, flu, folk healers recommend to pour mustard powder into the socks and move like that a few days.

Mustard powder and health benefits

When applied topically irritating mustard powder's action is widely used in the form of hot baths as a means of distraction, causing redistribution of blood (for example, bronchitis and pneumonia), and then person must be covered with a blanket.

Similarly, mustard powder is used **for the local baths** (foot). In this case, the bath temperature should be 39-40° C. Duration of treatment: 10 minutes. Mustard baths improve blood circulation, eases breathing, promote expectoration. The maximum duration of taking baths -10 days.

**Mustard compress** (1 tsp. of powder in a glass of warm water) used in pediatric practice in addition to mustard compress for colds. Compress is applied on the 1-10 minutes.

Mustard powder mixed with honey, and mixed on a white lily flowers decoction is used **externally for freckles**.

**To improve the stomach's work** it is recommended to chew mustard powder. A weak solution of mustard powder, ingested, acting laxative and is used for constipation.

**Mustard powder is used in phytocosmetics:** oily hair can be washed with mustard 1 tbsp. of mustard powder is poured by 400 ml of warm water, thoroughly mixed, the mixture is applied to the hair and skin lightly rubbed and rinsed after 2-3 minutes.





**For baldness:** mustard powder thoroughly stirred into warm (not above 60° C) water and the resulting slurry should be lubricated baldness parts until intense burning. Then wash off the mustard. The procedure is repeated daily. If within a month the hair will not grow, the further use of mustard is not advisable.

**To eliminate pigmentation:** mustard powder is poured with water, stir until the consistency of pulp and lubricate pigmented skin. After the appearance of intense burning, mustard is washed and the skin is wiped dry. The procedure is carried out in a day. Course – 10 sessions.

Contraindications: dilated blood skin vessels and facial hirsutism in women. Preparations of mustard contraindicated in inflammation of the kidneys and pulmonary tuberculosis.

Mustard powder is used as an excellent cleaner for washing and cleaning dishes and removing greasy stains when washing wool and silk.

Because mustard perfectly emulsifies fats, greasy dishes are washed by it.

Mustard powder has been successfully used in home canning. Besides antiseptic action it gives the product a specific taste, flavor and smell.

Mustard powder – is a great natural preservative and antiseptic, it is used: – to prepare the mustard – for filling sauces, soups, hash – to increase the shelf life of preservation.

Mustard powder is also used as an insecticide: it effectively influences the leaf-eating insects. This is – an eco-clean product for pest control in the garden because it has strong antibacterial properties and influences disinfecting on agents of some plant diseases.

Mustard powder is used in neuritis, neuralgia, sciatica, bronchitis, severe hypothermia, for the prevention of colds, hypertension, rheumatism. In chronic rhinitis, colds, flu, healers recommend to pour mustard powder in stockings or socks and go like that a few days.

## NATURAL DIETETIC OILS

### CORN OIL EXTRA VIRGIN

**Manufactured by means of mechanical operations using the method of the first cold pressing.**

This delicious dietary oil is made under a special vitamin-preserving technology of corn germs.

Corn oil is considered a dietary product and is perfect for baby food. This oil is very useful in terms of balance composition and this balance is created by nature itself.

Corn oil is ideal for dressing vegetable salads, salads, sauces, boiled potatoes and cereals, for stewing meat, fish and vegetables, for cooking a variety of hot and cold meals, dough, all kinds of pastries, bakery and confectionery products, for home canning.

In restaurants, corn oil is mainly used in the heat treatment.

Corn oil composition and benefits

Extra virgin corn oil has amber color and a slight pleasant odor and taste of corn. Major factors, determining the dietary properties of corn oil made of corn germs, whereby it is ideal for baby food, are the following: a high content of unsaturated fatty acids (vitamin F), and vitamin E, which is also called “juvenile vitamin” as it is an antioxidant.

Corn oil is also very useful in terms of balance of its composition. This balance is created by nature itself. In addition to vitamins E and F, this oil is rich in vitamins B1, B2, PP, provitamin A and vitamin K3.

Polyunsaturated fatty acids OMEGA-3 and OMEGA-6 contained in corn oil increase the body's resistance to infectious diseases and encourage the excretion of excess cholesterol.



### WALNUT OIL EXTRA VIRGIN

#### **Manufactured by means of mechanical operations using the method of the first cold pressing.**

This wonderful delicacy oil is manufactured with a use of the new vitamin preserving technology from walnut kernels.

Walnut oil is widely used in French and Georgian gastronomy. It is recommended for dainty salads, cold dishes, crispy frying and grilling, for making sauces and bakery. It has an incomparable discriminating and mild taste of walnut.

It is a perfect dietetic product having unsurpassed taste properties. This unique and highly nourishing product is useful after previous diseases and operations in the period of recovery.

Walnut oil is especially useful for elderly people.

Walnut oil contents and useful properties

Walnut oil composition includes: polyunsaturated fatty acids (linoleic acid and linolenic acid), vitamins E, A, P, C, carotenoids, B vitamins, micro- and macroelements (zinc, iodine, copper, calcium, magnesium, ferrum, phosphorus, and cobalt), biologically active substances.

Walnut oil has record amounts of vitamin E!

Walnut and walnut oil contain plant enzyme – ENTERIMIAZA which improves blood circulation in the area of generation organs and stimulates spermatogenesis.

Walnut oil is a perfect means for losing weight and organism rejuvenation.

Unsaturated fatty acids being components of walnut oil are not synthesized in the organism and cannot be substituted by fatty acids included to animal fats. Walnut oil contains phospholipids lowering cholesterol level in blood and also it contains sitosterin preventing cholesterol absorption in the digestive tract. Walnut oil improves indexes of cellular immunity; it lowers concentration of circulating immune complexes increasing organism resistance to acute respiratory diseases. Liposoluble vitamins (A, E, and carotenoids) included to this oil composition neutralize radionuclide action and brake processes running under the influence of penetrating radiation. Being active antioxidants vitamins contained in this oil brake aging processes stimulate hematopoiesis (blood formation).

Vitamin C and minerals Zn and Cu have a strong antioxidant effect. By means of strengthening vascular walls they prevent fatty liver infiltration and vascular walls infiltration, and that is of great importance for treatment and prevention of cardiovascular diseases, liver diseases, and endocrine system disorders including diabetes mellitus.

Walnut oil reduces cholesterol production, the process of free-radical oxidation, strengthens vascular walls.

It is used for prevention of cardiovascular diseases.

Has a strong healing effect.

Taking into account its properties walnut oil is on the top of oils and is the best among them.

### PUMPKIN SEED OIL EXTRA VIRGIN

#### **Manufactured by means of mechanical operations using the method of the first cold pressing.**

This wonderful and the most tasteful oil is produced with a use of the new vitamin preserving technology from pumpkin seed kernel.

Pumpkin seed oil is a wonderful dietetic product.

Pumpkin seed oil contains inexhaustible supplies of vital energy for human life. Due to its healing properties pumpkin seed oil is called “mini pharmacy” among the people.

Pumpkin seed oil is used not just for healing purposes, it is also the most tasteful food



supplement. This oil belongs to rare delicacies. It is a perfect seasoning almost to any dish.

Pumpkin seed oil is used for making various salads, beetroot salads, cold dishes, sauces, sprinkling of stewed vegetables and meat. Its taste adds a zest to any salads. This oil is also a perfect ingredient for preparing home-made mayonnaise. Pumpkin seed oil is ideal for making dough.

#### Pumpkin seed oil composition and useful properties

Due to its richest chemical composition pumpkin seed oil is is deservedly popular among both folk healers and specialists (physicians and cosmetologists).

Pharmacological and clinical researches performed by domestic and foreign scientists has shown the following actions of pumpkin seed oil:

- it improves potency;
- it normalizes activity of prostate gland and prevents adenoma development;
- it regulates functions of reproductive system, normalizes spermatogenesis and ovarian cycle;
- it prevents development of genitals inflammatory processes;
- it increases resistance to infectious diseases;
- it has an anti-inflammatory effect;
- it stimulates immunity;
- lowers cholesterol level in blood;
- it is recommended for treatment of atherosclerosis and coronary heart disease;
- it increases blood vessels elasticity;
- it is useful for treatment of lipid exchange disorders;
- it protects liver and stimulates gastrointestinal tract activity;
- it prevents lithogenesis (formation of stones) in gall bladder;
- it stimulates filtering function and excretory function of kidneys;
- it has an antiulcer and antiseptic effect;
- it protects the organism from the destructive influence of free radicals and premature aging;
- it rids the organism of toxic substances;
- it has an antifungal, antiparasitic and antihelmintic effect;
- it improves the state of skin;
- it protects from sunburns and accelerates tissues regeneration.
- it promote recovery and acceleration of hair and nails growing;
- It helps to get rid of blackheads, seborrhea and oily dandruff;
- it contains great amounts of biologically active substances; Carotenoids, tocopherols (lat. for "bringing progeny"), phospholipids, vitamins A, E, F, C, B, B1, B2, flavonoids, saturated, unsaturated and polysaturated acids;
- due to high contents of vitamin A it has proved to be a good measure for treatment of eye diseases;
- pumpkin seed oil is one of the richest sources of zinc – an element necessary for people from birth until old age.
- Pumpkin seed oil composition includes 53 macro- and microelements: ferrum, magnesium, zinc, selenium etc.

RAW-PRESSED SUNFLOWER OIL EXTRA VIRGIN

**Mechanically made, by first cold-pressed method.**

It is exceptional natural best quality oil with extra fine delicate taste made according to a folk Ukrainian recipe using modern vitamin-conserving technology from selected unshelled raw sunflower seeds.

It is ideal for making vegetable salads, vinegrets, sour cabbage, different kinds of cold and hot dishes, for seasoning porridges, boiled potatoes, home canning.

Formulation and useful properties of raw-pressed sunflower oil

Healing properties of raw-pressed unrefined and non-deodorized sunflower oil are widely used both in folk and traditional medicine for curing and prevention of a number of diseases.

This oil contains:

Vitamin is an all-powerful natural antioxidant. It helps to protect the immune system from affection caused by body aging, has a positive effect on the appearance of reproductive hormones, thwarts the progress of atherosclerosis, stands against clotting and sclerotic patching, and removes free radicals which provoke the development of oncological diseases from the body.

Vitamin E deficit, first of all, leads to the decrease in immunity.

There is 12 times more vitamin E in unrefined sunflower oil than in olive oil!

#### SESAME OIL EXTRA VIRGIN

**It is produced according to an ancient Japanese recipe solely by mechanical technique by the first cold-pressed procedure.**

This gorgeous highly nutritious vegetable oil is made according to the latest vitamin-preserving technology from sesame seeds.

Sesame oil is widely used in Japanese, Chinese, Indian and Thai cuisine for deep-frying, salad dressings and sauces, for pilaf cooking. This oil gives the usual meal new taste and unique flavor. Sesame oil has very nice and delicate flavor with nuttiness and light yellow colour. It is worth noting that it has a very low temperature for “fuming”. Therefore, in order not to lose all its beneficial properties, it is recommended to use it for dressing ready-made meals and salads.

Using this oil in cooking, you will not only give your meal incomparable flavor and aroma, but also ensure yourself a good health.

Sesame oil composition and benefits

Sesame oil is a valuable food and excellent therapeutic product. It:

- is effective in various lung diseases, dyspnea, asthma, dry cough;
- is recommended for patients with diabetes;
- increases the number of platelets and improves blood clotting;
- contributes to weight loss in obesity and strengthens the body;
- is recommended during treatment of increased gastric acidity;
- prevents formation of blood clots, opens blockages;
- helps in the gastro-intestinal colic, nephritis and pyelonephritis, nephrolithiasis;
- is used for anemia, internal bleeding, hyperthyroidism;
- controls acidity of the blood, increases acidity of the gastric juice;
- compensates for the total body depletion, moistens the intestines, cleanses it from the motions: it contributes to its rapid excretion from the body;
- helps with burning sensation during urination, purges with care;
- is used as an anthelmintic;





- it is proved that sesame oil increases the number of platelets, thus accelerating blood clotting, and therefore it is recommended to treat Werlhof's disease, thrombocytopenic purpura, essential thrombocytopenia, bleeding diathesis;
- is used in bodybuilding to increase muscle mass.

Sesame oil is considered one of the most beneficial plant oils.

Even a thousand and a half years BC, the Egyptians began to use oil made of sesame seeds as a medication. And the ancient people believed in its healing power so much that they considered it a symbol of immortality. And it is not for nothing. Of course, it does not give immortality, but its benefit for the human body is considerable. Indeed, the seeds and oil made of them are extremely rich in various minerals and vitamins necessary for normal human life. These are zinc, phosphorus, calcium, and in particular, vitamin E.

Lack of calcium inevitably affects our health and even our look. So, we eat cottage cheese and other dairy products, take calcium-containing medications, but do not guess that just one hundred grams of sesame seeds contain the daily requirement of calcium for an adult.

Eating seeds in a pure form, of course, is highly unlikely, but oil is an entirely different matter. After all, it preserves all the nutrients that it contains.

Medical studies have shown that, daily taking only one tablespoon of unrefined sesame oil can three times as much enrich the body with calcium. It is also rich in phosphorus and vitamin E. And it means that its use prevents development of various diseases of the nervous system, and the brain. And for the older people it is just rescue from disorders of the musculoskeletal system. Taking healing oil by a pregnant woman or a nursing mother not only as soon as possible will help to fill the shortage of nutrients and minerals in her body, but also will have a very positive impact on development and growth of a child. Furthermore, these useful substances of sesame oil are also antioxidants, slowing aging of living cells of the body.

It regulates the body's metabolism, which in turn, contributes to weight loss in obesity and, conversely, nourishes and restores the body in exhaustion. It is extremely useful and effective to take it for prevention and treatment of diseases such as asthma, arthritis, osteoporosis, pneumonia, anemia, heart disease, dyspnea, cough, liver and endocrine diseases.

Above all, it is an excellent dietary product, and unique therapeutic medication. In Japan, India, China, the use of sesame oil, both in medicine and in cooking is very widespread.

In ancient Eastern medicine, sesame seeds were considered almost a panacea for all ills. It must be said that modern scientific research has also confirmed that they are the perfect remedy for many diseases.

Sesame oil has nice smell and taste of nuts. In contrast to the seeds themselves, it can be stored for long time, and it does not become spoiled or rancid. And the most interesting is the fact that after a long time it does not lose its beneficial properties. This effect is achieved owing to the extra virgin technology, which we used in its manufacture.

Composition of sesame oil:

Sesame seed oil in the entire world is considered one of the most beneficial plant oils. And this fame is won due to its composition.

Fat composition of sesame oil: OMEGA-3 (less than 0.2%), OMEGA-6 (45%), OMEGA-9 (41%), saturated fatty acid (palmitic acid, stearic acid) – about 14%.

Vitamin composition of sesame oil: vitamin A, B1, B2, B3 (vitamin PP), B4, C, D, E (choline), K.

Macro- and microelements in sesame oil: sesame seed oil is rich in iron, zinc, phosphorus,

potassium, silicon, nickel, magnesium, copper, manganese and some other elements. But as for the content of calcium it simply has no equal – only 1 teaspoon of sesame oil contains the daily requirement of calcium, even for an adult.

In addition to the abovenamed, composition of sesame oil contains beta-sitosterol, betaine, lecithin, resveratrol, sesamin (chloroform), sesamol, sesamol, phytin, phytosterols and phospholipids.

#### FLAXSEED OIL EXTRA VIRGIN

##### **Manufactured by means of mechanical operations using the method of the first cold pressing.**

This great healing vegetable oil is made according to the latest vitamin-preserving technology of flax seeds.

It is used for making all sorts of cold meals, salads, cabbage, and sauces. Flaxseed oil can be dressing for any porridge, boiled potatoes, as well as added to the first and second courses, can be mixed with sour cream and mayonnaise. It is very tasty and healthful to mix it with cottage cheese and herbs.

Besides, it is possible to strengthen the action of flax seed oil by means of certain products. These products that are allies of flaxseed oil include honey, cottage cheese, kefir, yoghurt, sauerkraut, beets, and carrots. These products help each other in more full digestion, bringing the maximum benefit to the human body. Consumption of flaxseed oil with the chicken or turkey meat, fish and rye bread helps to develop the “happiness hormone”, i.e. serotonin.

Fresh high-quality flax seed oil has a slight bitterness that gives meals a delicious taste! Try flaxseed oil, and perhaps it remain in your fridge forever, replacing a bunch of medications and cosmetics.

#### Flaxseed oil composition and benefits

It is popularly believed that flaxseed oil is healthful, easily digestible and versatile tool in the fight against almost all diseases. Consumption of edible flaxseed oil has no side effects.

As for the content of unsaturated fatty acids it beats twice as much fish oil: alpha-linoleic acid (OMEGA-3) – 60%, linoleic acid (an omega-6) – 20% oleic acid (OMEGA-9) – 10%, other unsaturated fatty acid – 10%. If OMEGA-6 is found in other vegetable oils, OMEGA-3 in sufficient quantity is only found in fish oil, and above all in flax seed oil. It is especially important for the women.

Let us consider the useful composition of flaxseed oil in greater detail, as its value to the human body is due to its rich composition.

- **Fat:** OMEGA-3 (up to 60%), OMEGA-6 (about 20%), OMEGA-9 (about 10%), saturated fatty acids (stearic acid, myristic acid and palmitic acid);
- **Vitamins:** A, B1, B2, B3 (PP), B4, B6, B9, E (choline), K, F;
- **Macro- and microelements:** potassium, phosphorous, magnesium, iron, zinc;
- **And in addition to above:** linamarin, phytosterols, squalene (up to 8%), thioproline, lecithin, beta-carotene.

Despite the considerable list of components that compose natural flaxseed oil, yet special value is a complex of poly- and monounsaturated fatty acids. Alpha-linoleic acid (OMEGA-3) is indispensable and urgently needed by our body. Unfortunately, it is either absent or present in very small quantities in most food products. Fish oil is famous for high content of this fatty acid. Now, the content of unsaturated fatty acids in flax seed oil is twice as high as in fish oil!

Flaxseed oil is the undisputed leader among vegetable oils. It is used:

- in diabetes (frequent use of a small amount of linseed oil, containing acid of OMEGA-3,

improves insulin action and protects the body from emergence and development of diabetes. Furthermore, it not only improves the perception of insulin, but also decreases blood cholesterol);

- for prevention and treatment of secondary cardiovascular diseases (coronary heart disease, atherosclerosis, myocardial infarction, stroke), reduction of the probability for formation of the blood clots;

- to improve the liver mechanisms;
- in gastritis, colitis, constipation;
- for prevention of the thyroid gland diseases;
- for prevention and auxiliary treatment of oncological diseases;
- to reduce the level of cholesterol and triglycerides;
- against helminthes, epigastric burning, various ulcers;
- to improve skin and hair;
- as an indispensable element in the diet of pregnant women for proper development of the brain of a child;

- for weight loss;
- for women, having menopause;
- to increase potency;
- to have anti-inflammatory and anti-edematous effect;
- to increase elasticity of the eye blood vessels, improve microcirculation, and prevent vascular spasm;

- to assist lowering blood pressure and supporting the immune system of an individual;
- to have rejuvenating and healing effect on burns, freeze burns, radiation injuries of the skin;
- sometimes flaxseed oil consumption for a few days significantly improves asthma clinical data;
- as a general tonic for adults and children.

According to the content of OMEGA-3 and OMEGA-6, flaxseed oil is superior to other conventional products of the human diet and just 1 or 2 tablespoons of flaxseed oil provides daily requirement of unsaturated fatty acids.

#### MUSTARD OIL EXTRA VIRGIN

**Manufactured by means of mechanical operations using the method of the first cold pressing.**

This wonderful highly dietetic oil is manufactured with a use of the new vitamin preserving technology from mustard seeds.

Many years ago this dietetic oil was sold just at court of Nickolay the 2nd and was called imperial delicacy.

It has a specific aroma and a piquant taste, wonderful gastronomic and dietetic properties.

Mustard oil is perfectly combined with vegetables and greens, it is also an ideal ingredient for dressing vegetable salads, beetroot salads, boiled potatoes; it adds delicacy to serials and emphasizes the natural taste of vegetables and other cold appetizers (salads equipped with this dressing can be preserved fresh for a longer period as far as mustard oil is a natural antiseptic agent); it is used for cooking flour and bakery products (equipped with mustard oil any pastry becomes puffy and has a goldish tint and a pleasant aroma; it doesn't get stale so fast); it is used for home canning and vegetable frying. Pancakes, fish meat and potatoes fried using mustard oil receive a peculiar, pleasant and inimitable taste.



Mustard oil improves appetite and stimulates digestion process.

A peculiar feature of mustard oil among other oils is that it can preserve its properties for a long period; it is oxidation resistant and rancidity resistant. It can be added to other oils. It is recommended to use it for canning in order to provide a better preservation of canned foods. Therefore it is the most preferable to use mustard oil for preparing canned food for winter period as far as it a perfect antiseptic agent and is esculent 4 times as long as sunflower oil: Received in the result of cold pressing it can be kept for more than two years without change of taste properties.

Mustard oil is not just a highly nourishing product but also a perfect agent with a broad spectrum of therapeutic effect.

Mustard oil composition and useful properties

Oil received from mustard seeds is one of the most useful oils. It is a good antiseptic agent and it has a great amount of vitamins included to its composition: A, B6, D, E, K, P, PP and so it improves human immunity, strengthens heart and brings away atherosclerosis. Besides vitamins mustard oil contains magnesium, sulfur, ferrum,, sodium, potassium and calcium which significantly improve functions of liver and gall bladder. Mustard oil also contains phytochemicals, glycosides, tocopherols, phospholipids and sinigrin. This “bouquet” of useful elements not just improves metabolism but also slows down aging processes; and attention! – it can help to loose weight. The full range composition of biologically active components balanced by the nature itself is preserved in this oil. Mustard oil has an optimal ratio of indispensable fatty acids OMEGA-3 and OMEGA-6.

Mustard oil contains beta-sitosterol (estrogen like, anti-atherosclerotic, antifungal, bacteriostatic activity), it increases amounts of leukocytes, erythrocytes, hemoglobin. Mustard oil is rich for natural antibiotics (isothiocyanates, sinigrin, essential mustard oil), therefore it has bactericidal and anthelmintic activity; due to this fact it can treat gastrointestinal, cardiovascular and catarrhal diseases. Many nutritionists and naturopaths admire it and call it a matchless natural medicine.

Mustard oil has absolutely all fat-soluble vitamins:

- vitamin A promoting organism growth and immunity strengthening;
- vitamins K and P improving strength and elasticity of capillars;
- vitamin P which is also widely known as “fat burner” in the organism;
- Mustard oil contains vitamin B6 playing an important role in nitrogen metabolism and processes of amino acids synthesis and breakdown and in addition it promotes this vitamin secretion performed by microorganisms presented in intestine; vitamin B6 takes key positions in processes of amino acids synthesis and breakdown;
- vitamin PP is presented in mustard oil in an easily digestible form – it improves carbohydrate metabolism, participates in tissue respiration and has a vasorelaxant action;
- Mustard oil and buckwheat oil are just two oils containing carotin which has general health improving action; at the same time the first of two mentioned oils is the champion in its class as for amounts of carotin (polivitamin A); vitamin A is preserved in it for the period of up to 8 months;
- And here is another unique feature of mustard oil: it has 1.5 times as much of vitamin D as sunflower oil and 4 times as much of vitamin E (vitamin of youth) as sunflower oil; this vitamin is preserved in mustard oil 4-5 times as long as in other oils. Such vitamin stability is indispensable for metabolism as far as it uniquely prevents development of local and oxygen starvation; vitamin E promotes lowering blood cholesterol level and plays an indispensable role in all reproductive processes and in sexual system functioning.

Mustard oil is useful in case of:





- gastrointestinal and cardiovascular diseases;
- lipid exchange disorders and atherosclerosis;
- neurotic diseases: neuroses, neuritis, excessive excitability, insomnia;
- hypertension;
- congestions of blood in head and climax;
- colds;
- external wounds and burns.

It is used for immunity improvement, promotes organism growing and development, facilitates lactation of nursing mothers. This oil increases organism resistance to infections, has antistatic and bactericidal effects. It is recommended for massage especially for fat people.

#### PEANUT OIL EXTRA VIRGIN

**Manufactured by means of mechanical operations using the method of the first cold pressing.**

This wonderful highly nourishing oil is manufactured with a use of the new vitamin preserving technology from peanut kernels.

Peanut oil is broadly used in Asian cooking and USA cooking for frying, deep fat, salad dressing, preparation of souses and various cold dishes. It is especially useful for dough dishes.

It has a pleasant taste and aroma. It perfectly preserves its properties at high temperatures.

Vegetable salads made with a use of of peanut oil are useful and they also reduce costs more than two times. Deep fat oil saving – almost 4 times

Peanut oil composition and useful properties

Peanut oil is a nutrient product. It increases satiety and is in the basis of weight lowering diets; it is especially famous among photo models as well as among people who would like to maximally reduce meat consumption in their food ration.

**Peanut oil is broadly used in medicine:**

- for treatment of purulent wounds and hardly healed wounds;
- it increases potency and libido;
- it stimulates muscle activity;
- it improves memory, attention and acusis;
- it lowers cholesterol level in blood;
- it has a healing effect in case of cardiovascular system diseases and blood secretion disorders;
- it is useful for treatment of coronary heart disease;
- it improves sleeping and renews strengths in case of insomnia and exhaustion;
- it normalizes work of kidneys and gall bladder (it is one of the best choleretic agents);
- prevents thrombi formation;
- it has a sedative action on nervous system;
- it is a strong antioxidant;
- it is effective for treatment of children's hemorrhagic diathesis which causes lowering of blood coagulation and numerous subdermal hemorrhages;
- it perfectly nourishes the skin not leaving sensation of fat content, gives you a good mood with its aroma and color, it is also a good basis for massages;
- it is the basis for weight lowering diets;
- it is recommended for people suffering from overweight, gastrointestinal disorders, liver and



kidney diseases;

- it is rich for vitamins of the following groups: A, D, E, B1, B2, PP, folic acid, microelements (ferrum, cobalt, zinc, potassium, magnesium, iodine, phosphorus).
- it contains the following fats: OMEGA-3 (less than 1%), OMEGA-6 (15-30%), OMEGA-9 (50-60%), and unsaturated fatty acids (palmitic, stearin, arachic lignoceric acids...) (about 20%).

#### SOYBEAN OIL EXTRA VIRGIN

##### **Mechanically made, by first cold-pressed method.**

It is valuable nutritious vegetable oil made according to high vitamin-conserving technology from soya beans.

This valuable nutritious oil is a recordsman among vegetable oils according to micronutrient content.

In cookery it is used for making any and all possible vegetable salads, vinegrets, sauces, cold and hot dishes, boiled potatoes and any dishes with potatoes, meat and fish dishes. Meat and fish are very tasty if they are fried in soja bean oil. When frying the oil is not splashing and it gives tasty and fine crackle. It makes tough meat tenderer if using it as an additive to marinade for shashlik.

Soybean oil is mostly used in the dishes of Japanese and Chinese cuisine.

Formulation and useful properties of soybean oil

Soybean oil is not only a valuable source of energy but it provides a human body with bioactive acids which help to decrease the risk of cardiovascular diseases. Soybean oil is a good source of polyunsaturated fatty acids OMEGA-3 and OMEGA-6.

Besides soybean oil contains such biologically valuable component as tocopherols, phytosterols, phospholipids and a number of other useful and necessary for human being substances.

According to its nutritive and biological values soybean oil is the most valuable vegetable oils. It contains a lot of vitamin E (114 mg / 100 g) which influences genital glands function and restores virile strength, helps to reinforce immune and muscular systems, inhibits the process of senescence in the body, has anticarcinogenic properties, helps the body to assimilate one more important vitamin – vitamin A.

Due to vitamin E the body stands against atherosclerosis, clotting and sclerotic patching.

#### MILK THISTLE OIL EXTRA VIRGIN

##### **Mechanically made, by first cold-pressed method.**

It is a unique food vegetable oil made according to high vitamin-conserving technology from milk thistle seeds.

Milk thistle oil has a pleasant peculiar odour and taste.

In cookery it is used for seasoning salads, vinegrets, different vegetable dishes, for seasoning porridges, for cold and hot dishes.

It is a unique dietary product for a person in terms of its value, it is also an effective means for preventing a number of diseases and it has been used in folk medicine for a long time.





**Milk thistle**

It is recommended to normalize the metabolism, improve the processes of digestion and the functional state of the liver. Milk thistle seeds have a choleric, anti-sclerotic, wound-healing, regenerating effect, strengthens the walls of blood vessels, protects liver cells from infections and toxins. Milk thistle is used for intoxication and poisoning, diabetes, toxicosis in pregnant women, in case of obesity, immunodeficiency, as well as in cardiovascular diseases and vision loss.

#### Formulation and useful properties of milk thistle oil

Milk thistle oil is a richest biocomplex: flavonoids, irreplaceable higher fatty acids (linoleic, linolenic and others), carotenoids, vitamins (A, B, E, K, P, D), antioxidants.

Milk thistle oil is a product of higher bioactivity and a unique natural composition of useful for our body substances. This oil contains a specific component – SILIBININ which strengthens and regenerates hepatic cells. Milk thistle oil will put your liver in order, increase your energy and reinforce your immune system. Milk thistle oil balances a disadvantage done to the body by alcohol, toxic substances and free radicals. It activates metabolic process, “burns” fat and improves the immunity. Traditional practitioners like milk thistle for its absolute harmlessness and that is that favourably differs it from other plants.

High medical and preventive properties of the oil from milk thistle are connected with the presence in it of chlorophyll, carotenoids, tocopherols and complex of fat polyunsaturated acids (vitamin P). It is it that fixes cholesterol into a form easy to be removed from the body keeping it from setting on vascular walls, stimulates overall fat metabolism activating their going out from fat depot, due to this it has been named “fat burner”.

Chlorophyll activating the metabolic processes in cells rejuvenates tissues, stimulates regenerative processes (processes of regeneration). By this are explained wound-healing properties and stimulation of haematogenesis.

Carotenoids have antiallergic activity and stimulate metabolic process in liver and cardiac muscle, participate fully in oxidoreduction in cells.

Tocopherols effectively protect the body from the impact of chemical and physical factors provoking the development of tumors, prevent the body from ageing and maintain its reproductive functions.

Milk thistle oil is an effective heparoprotector. It prevents from absorbing poisons getting into the

body together with food and water, protects the body from destruction when chemical compounds get into it.

#### ROSEHIP OIL EXTRA VIRGIN

##### **Manufactured by means of mechanical operations using the method of the first cold pressing.**

This unique healing oil is manufactured with a use of the new vitamin preserving technology from rose hips growing in Carpathian Mountains.

It is easily assimilated by human organism and has a soft specific taste. It is recommended to be used for cooking any cold dishes, salads, beetroot salads, cabbage, sauces, for dressing cereals and and garnishes; it adds an inimitable taste and flavor to traditional dishes. It not only adds an unimmitable taste to traditional dishes but also improves their food value.

Rosehip oil is a real treasure house of substances useful for human organism. Useful properties of this unique oil are relly diverse.

##### Rosehip oil contents and useful properties

Rosehip oil is a valuable dietetic product. It is recommended for use in everyday food ration in order to provide organism normal vital activity especially for people engaged in hard manual labor, sportsmen and also for elderly people.

Rosehip oil is used for medicinal purposes during not a single millenium. It is a real treasure house of substances useful for health.

Rosehip oil has got a title of “Natural Oils Queen” among the people.

Useful properties of this oil are really diverse. It has rich content of unsaturated and saturated fatty acids (including linoleic acid – 57,8%, linolenic acid – 14,3%, olein acid – 19,1%, palmitic acid – 5,3%, myristic acid – 1,15%, stearin acid – 0,31%), tocopherols (vitamin E not less than 40 mg%), carotenoids (polyvitamin A not less than 55 mg%), vitamin C, phospholipids, flavonoids (quercetin and kaempferol), galactolipids, phytosterols, iron solts, calcium, manganese, phosphorus, magnesium, copper and molybdenum.

Due to this variety of components rosehip oil has a broad spectrum of affecting face skin. Using this oil gives an opportunity to normalize skin metabolic processes and prevent storage of decay products in its cells: these decay products cause premature aging of cutaneous covering.

Due to its unique regenerating properties rosehip oil accelerates the process of vareous skin injuries, it helps to remove skin cosmetic defects such as for example cicatrices, scars, and macules after pimples.

Using rosehip oil perfectly helps in treatment of aging skin, it prevents appearing face wrinkles, smooths existing ones and increases skin elasticity.

Rosehip oil is useful for removing fine wrinkles around eyes. Also it helps to remove bags under eyes in case of everyday oiling inferior eyelid in the evening. This oil can prevent new wrinkles and smooth existing ones. In order to achieve this effect you just need to bring several drops of oil on cleansed skin before going to bed.

It helps to recovery natural hair shine and softness. If hair is colored and damaged by means of chemical substances rosehip oil will help to significantly improve its state. This oil is useful for strengthening nails. Rosehip oil is used as a polyvitaminic, general health improving, tonic, regenerating and resistance improving agent in treatment of avitaminosis, various infectious diseases, bleeding, frostbites, burns, hemophilia. It removes irritations, increases skin elasticity, normalizes activity of sebaceous and sweat glands, provides a smooth and beautiful color.





This oil is a soft but also a powerful antidepressant which removes indecision and brings self-confidence. It perfectly tones up blood vessels, has an antimicrobial effect, removes traces of fatigue and stresses from the face.

Rosehip oil doesn't have toxic properties.

It improves protective properties of mouth cavity mucous membrane and its feeding, it also has a bacteriostatic, spasmolytic, cholagogic and antihistaminic properties. Cholagogic effect of rosehip oil promotes cholesterol removal as well as removal of its predecessors from the organism. It is extremely useful for treatment of cholecystitis and hepatitis. The useful effect of rosehip oil on gastric juice secretion was proved.

Magnesium availability in rosehip oil can explain tension reduction of vessels walls and improvement of liver function. Magnesium ions prevent lithogenesis (formation of stones) and blood clots in urinary system.

People taking rosehip oil for long periods have normal contents of cholesterol in blood. And this can stop development of cardiovascular diseases; it also helps against overweight. This oil is very useful for people suffering from atherosclerosis. Rosehip oil strengthens vessels walls preventing probability of atherosclerotic jams.

Rosehip oil is useful for people with previous stroke.

#### WHEAT GERM OIL EXTRA VIRGIN

**It is produced according to an ancient Japanese recipe solely by mechanical technique by the first cold-pressed procedure.**

This wonderful dietetic oil is manufactured with a use of the new vitamin preserving technology from wheat germs.

Wheat germ oil is a unique superconcentrate of vitamins and biologically active substances put by nature to the seed for renewal of a new life.

This oil has wonderful gastronomic and dietetic properties with a broad spectrum of action.

Wheat germ oil is used for cooking various cold and hot dishes, salads, beetroot salads, sauces, cabbage for serial dressing, boiled potatoes, garnishes, first and second courses. It is tasty and useful to mix it with cottage cheese and greens.

Adding a small amount of wheat germ oil to other oils prevents their rancidity and prolongs their keeping time.

Wheat germ oil contents and useful properties

This oil has in its content following elements: indispensable and non-synthesized by human organism amino acids (tryptophan, methionin, leucine, valine, isoleucine etc), polyunsaturated fatty acids, liposoluble vitamins (E, A, D, B1, B2, B3, B5, B6, B9, P, F, PP), alonin – a substance having anti-inflammatory effect, squalen – having high antioxidant activity, octacosanol – antioxidant and approximately 20 various macro- and microelements (potassium, calcium, phosphorus, manganese, ferrum, zinc, selenium, copper, sulfur, iodine etc). Wheat germ oil differs from many other oils due to its high and more balanced content of fatty acids (more than 70%): OMEGA-6(from 45% to 60%), OMEGA-3 (up to 11%), and OMEGA-9 (from 12% to 30%).

A distinctive feature of wheat germ oil in comparison with other oils is a record content of vitamin E ("vitamin of youth" – tocopherol). This oil contains up to 1200mg % of this powerful natural antioxidant. Vitamin E strongly improves cardiovascular system activities (lowers the risk of thrombi formation), reduces the cholesterol level in blood and prevents its storage on walls of blood vessels, it



promotes reducing arterial pressure and plays an important role in functioning of male and female reproductive systems; it stimulates muscular system activity, stops development of inflammatory processes, promotes removal of harmful substances from the body, it also has wound healing and immunostimulating properties.

Wheat germ oil is also rich for vitamin D which plays an important role in the process of calcium and phosphor assimilation – minerals responsible for health of teeth, bones and joints. Being necessary for the full range activity of thyroid gland vitamin D promotes immunity strengthening and it also lowers the risk of skin diseases, various cardiovascular and ontological diseases.

Beta-carotin presented in this oil turns into vitamin A in the human body, vitamin A in its turn is an active participant of immunity strengthening. Vitamin A beneficially affects skin and mucous membranes; it also significantly improves the state of vision organs.

Wheat germ oil is a perfect source of B vitamins necessary for normal brain activity and nervous system activity, these vitamins are responsible for a proper state of vision organs, hair and nails, take an active part in the process of hematogenesis (blood production), synthesis of gonadal hormones and embryogenesis, regulate activities of cardiovascular, digestive and muscular systems.

Zinc presented in great amounts in wheat germ oil take part in the process of hematogenesis (blood production), as well as in synthesis of insulin and digestive enzymes. Zinc is especially important for male reproductive system. Zinc plays a key role in testosterone secretion by males which defines man's behavior and provides burst of men's sexual energy; it significantly improves erectile function and normalizes the process of sperm secretion. Zinc significantly reduces the risk of prostatic adenoma.

Selenium being a composite of wheat germ oil just like zinc contributes to reinforcement of sexual desire; it beneficially affects the process of spermatogenesis, at the same time selenium is an active participant of natural insulin synthesis; it stimulates immunity strengthening and securely protects walls of blood vessels from cholesterol plaques formation.

A powerful natural antioxidant – SQUALEN presented in wheat germ oil has a strongly marked immunostimulating, wound healing, bactericidal, antifungal and antitumoral properties. Humans need SQUALEN as an anti-carcinogenic, antimicrobial and fungicidal agent. As far as water is the most widespread source of oxygen in human organism squalen easily enters into reaction with it and releases oxygen filling the organism and tissues with it.

Scientists have proved since long ago that it is very oxygen deficiency and oxidizing cells damaging which are the main causes of organism aging as well as of tumors development. Getting into human body squelen rejuvenates cells and inhibits the growth of malignancies. In addition to this squelen can reinforce the immune system by several times providing organism resistance to various diseases.

Such a rich composition stipulates a broad scale of wheat germ oil positive influence on human organism.

Treatment and preventive properties of wheat germ oil:

- it significantly improves cardiovascular system functioning and blood composition;
- it promotes strengthening walls of blood vessels, normalization of arterial pressure and lowering cholesterol level in blood;
- it prevents formation of dangerous atherosclerotic plaques on walls of blood vessels as well as thrombi formation;
- it prevents development of inflammatory processes in various parts of cardiovascular system and protects cardiac muscle and vessels from destructive influence of free radicals;
- it favorably affects metabolic processes in the cardiac muscle (myocardium) and participates in



the process of heart contractions strength and rhythm regulation;

- it plays an important role in the process of hemoglobin production responsible for transportation of oxygen from lungs to heart, brain and other organs of human organism;
- It is useful to be used for prevention and complex treatment of atherosclerosis, arterial hypertension, anemia, diabetic retinopathy, coronary heart disease, varicose veins, thromboflebitis, and hemorrhoid. Regularly taken wheat germ oil is a perfect preventive agent against infarcts and strokes;
- it significantly reduces the risk of prostatic adenoma development and provides burst of men's sexual energy, it improves erectile function and normalizes the process of sperm secretion, it also improves potency;
- it improves functional state of reproductive system, promotes human organism hormonal balance normalization.
- it is useful during pregnancy and breast-feeding, facilitates lactation and significantly improves mother's milk taste and quality. Regular oiling abdomen area with wheat germ oil during pregnancy and after childbirth promotes elasticity of women's skin preventing formation of stretches;
- it is useful for people suffering from diabetes mellitus as far as it contains substances necessary for full range pancreatic insulin synthesis. In connection with this regular use of wheat germ oil can be recommended for people suffering from type II diabetes mellitus;
- removes heartburn and constipations, normalizes balance of gut organisms, since long ago it has been used as a preventive agent of gastric ulcer, duodenum ulcer, gastritis, gastroduodenitis, esophagitis, disbacteriosis, colitis, enterocolitis, cholecystitis, hepatitis and it is also broadly used in complex treatment of these diseases.

#### SEA BUCKTHORN OIL EXTRA VIRGIN

This unique healing vegetable oil is made according to the latest vitamin-preserving technology of sea buckthorn berries gathered in the Carpathians.

Sea buckthorn oil has been known since ancient times and gained its fame due to its extraordinary healing properties. Unique properties of this oil are widely used in folk and in traditional medicine for treatment and prevention of a number of diseases.

Sea buckthorn oil has been successfully used in cooking. Pastries with the addition of sea buckthorn oil get nice golden colour and fine aroma. Added to salads, it gives a new unexpected taste and spicy flavor. Fish and meat seasoned with sea buckthorn oil has always been the favorite meal of Siberians, who were famous for their health and longevity.

This oil has a delicate taste and aroma. For prevention it is recommended to add it to salads in combination with any other vegetable oils. Also, the oil can be used for any type of food, giving it a unique taste and increasing its nutritional value.

#### Sea buckthorn oil composition and benefits

It is quite obvious that the beneficial properties of sea buckthorn oil directly depend on its composition. Let us discuss it in more detail.

- fat: OMEGA-3 (4-6%), OMEGA-6 (15-16%), OMEGA-9 (10-13%), unsaturated fatty acids: palmitoleic acid (23-31%), saturated fatty acids: palmitic acid (29-40%), stearic acid (1.5%), myristic acid (1.5%);
- phospholipids;
- amino acids: sea buckthorn oil comprises 18 amino acids, including valine, histidine, isoleucine,

leucine, lysine, threonine, phenylalanine;

- nonessential amino acids: alanine, arginine, aspartic acid, glycine, glutamic acid, proline, serine, tyrosine, carotenoids (1-6%), lycopene, zeaxanthin, beta-carotene, cryptoxanthin, quercetin;
- phytosterols: beta-sitosterol;
- flavonoids, including rutin, isorhamnetin, kaempferol;
- triterpenic acids: oleanic acid, ursolic acid and some other triterpenic acids;
- organic acids: tartaric acid, salicylic acid, oxalic acid, malic acid, succinic acid;
- tannins: phytoncids, serotonin, pectin, coumarin, alkaloids;
- vitamins: B1, B2, B3, B6, B9, C, E, K, P;
- micro- and macroelements: 27 minerals, including aluminum, boron, vanadium, iron, calcium, cobalt, silicon, magnesium, manganese, molybdenum, sodium, nickel, sulfur, strontium, titanium, phosphorus and zinc.

It should be emphasized that bright orange colour of sea buckthorn oil is due to an extremely high content of carotenoids. Carotenoids are known as precursors of vitamin A, the role of which in the human body can be hardly overestimated. Sea buckthorn oil is the clear leader in the content of carotenoids of all currently known vegetable oils.

Also, this oil has high content of tocopherol (vitamin E). Sea buckthorn oil contains this strong antioxidant 2 times greater than the oil of wheat germ, although the content of tocopherol in wheat germ is sufficiently large.

Another feature of sea buckthorn oil is just a huge content of vitamin C; this oil contains no more oil than lemons and oranges. Besides, ascorbic acid of this oil is extremely stable in refining. Scientists explain this feature of sea buckthorn berries by the lack of ascorbino enzyme, which transforms ascorbic acid into an inactive form.

Sea-buckthorn oil is a product with a high content of carotenoids, vitamins E, F, A, K, D and biologically active substances. It is used as a source of beta-carotene.

**Vitamin A.** It occurs in two forms: ready-made vitamin A and vitamin precursor A (carotene). It is included in the photoreceptors in the retina of the eye, required to maintain the normal condition of the skin, mucous membranes of the lungs, intestines and urinary tract, promotes the growth and strengthening of bones, hair, teeth and gingivae. It increases resistance to infections of the respiratory system. It is needed to produce sperm cells and egg cells. It is an antioxidant and helps preventing cancer.

**Vitamin E.** Another name is tocopherol. It is a powerful natural antioxidant that protects the body from the effect of free radicals. It prevents oxidation of fatty acids, vitamin A and some hormones. It helps to protect the immune system against damage caused by the body aging, and stimulates development of lymphocytes. By virtue of this vitamin the body resists atherosclerosis, formation of blood clots and sclerotic plaques. It is responsible for reproductive potential. Vitamin E is required to maintain normal metabolism. The level of magnesium, being an essential mineral for the human body, is directly related to vitamin E. Lack of vitamin E primarily leads to reduced immunity.

**Vitamin F.** These are polyunsaturated essential fatty acids. It prevents accretion of cholesterol in the arteries, provides healthy skin and hair, and affects the activity of the endocrine glands. It helps unsaturated fat burning, which leads to weight loss.

**Vitamin D.** It facilitates processing of mineral constituents of nutrition and is indispensable for formation of the skeleton and maintaining the bone integrity. In humans, vitamin D regulates calcium and phosphorus metabolism, and makes bones and teeth stronger. It has immunomodulating and onco-





protecting effect, reduces lead toxicity.

Vitamin K. It is required for normal blood clotting and muscle function.

The main purpose of sea buckthorn oil is to treat gastric ulcer and duodenal ulcer, gastritis and colitis. Moreover, this oil helps to reduce acidity in the stomach, and accelerates ulcer healing.

Sea buckthorn oil has been well proven in the treatment of:

- inflammation of the digestive tract mucous (it is used in the complex therapy of gastric ulcer and duodenal ulcer);
- gynecological diseases: cervical erosion, colpitis, vaginitis, endocervicitis;
- burns, radiation and ulcer skin injuries, bed sores, gastric ulcer, post-irradiation esophageal cancer;
- chronic diseases of the upper respiratory tract: pharyngitis, laryngitis, sinusitis;
- ulcer of the eye cornea, pathological processes of the rectum;
- inflammatory gum disease and paradontosis;
- atherosclerosis;
- psoriasis and chromophytosis and neurodermatitis;
- for fast healing of wounds, scratches and other skin injuries. In this case, the characteristic feature of sea buckthorn oil is high quality of the healing, i.e. lack of any scars on the damaged skin;
- to restore the skin after sun and radiation burns, accelerating formation of tissues;
- against wrinkles, freckles and pigmented spots, acne, dermatitis, and skin fissures;
- to improve vision;
- prevents formation of blood clots.

#### CEDAR NUT OIL EXTRA VIRGIN

**Manufactured by means of mechanical operations using the method of the first cold pressing.**

This unique delicacy vegetable oil is made according to the latest vitamin-preserving technology of cedar nut kernels.

Cedar nut oil is a unique natural product, having no analogues. Its synthesis is impossible.

Cedar nut oil has always been considered a delicacy. Its amazing taste and flavor will not leave you indifferent.

This gourmet and useful oil is used for dressing all sorts of salads, any vegetable dishes, soups and porridges, for cold and hot appetizers. It is also recommended to add to the rich dough to give a better taste.

Using this oil in cooking, you will not only give your meal incomparable flavor and aroma, but also ensure yourself a good health. Cedar nut oil can be replaced with any vegetable oil, but the cedar nut oil itself cannot be completely replaced with anything!

Cedar nut oil composition and benefits

Amazing power of this oil has gained worldwide recognition. Cedar nut oil is used not only as an extremely tasty vegetable oil for cooking, but also as a well-known traditional part of folk medicine. It is an effective therapeutic agent for preventing and treating a variety of diseases.

Concentrated cedar nut oil contains the following vitamins: A, B1, B2, B3 (PP), B6, D, E, F, K. For example, as for the content of vitamin E, which contributes to lower blood cholesterol and plays an indispensable role in all reproductive processes and genital sphere mechanisms, – pine nut is 5 times greater than olive oil.



Cedar nut oil contains 3 times more vitamin F, which is not synthesized in the human body, than medications sold in pharmacies based on fish oil.

Cedar nut oil is rich in OMEGA-3 and OMEGA-6.

Regular consumption of cedar nut oil:

- regulates nervous system activity and metabolism; increases potency of the men and refresh your body;
- helps to reduce cholesterol in the blood, improves the blood count, reduces the ability of cholesterol to plaque formation;
- plays an indispensable role in the normal course of pregnancy and lactation of nursing mothers;
- improves the immune system of the body and helps to improve vision;
- prevents gastrointestinal tract diseases: gastritis, pancreatitis, cholecystitis, peptic ulcer (up to complete dispersion);
- cleans the body, dries out radionuclides, heavy metals and other toxins;
- prevents hair loss, fragility of hair and nails;
- is effective in psoriasis, dermatitis, diathesis, urticaria, neurodermatitis, bed sores, erosions, trophic ulcers, burns and freeze burns;
- helps with acute respiratory diseases (colds, flu, etc.), laryngitis and tracheitis;
- is effective in pulmonary tuberculosis;
- is very useful for children for proper growth and harmonious development of their body;
- can be used externally during the massage, infraction in the bath or sauna;
- provides the rejuvenation effect for the skin, making it firm and elastic.

Cedar nut oil is recommended for people, living in large cities and other polluted areas, and for people, working under high psychological and physical stress. As a unique natural food product, cedar nut oil has no contraindications and side effects.

This oil is indeed a real storehouse of nutrients.

Cedar nut oil also plays a significant part in formation of a full diet. It is particularly recommended to be included into the diet of baby foods as its properties help to strengthen the immune system. Moreover, this oil is widely used in sports nutrition because the energy value of this product amounts to 9 kcal per 1 gram with digestibility of 98%.

If this oil is included in the daily food ration, the body receives the powerful healing effect. The best option of getting all the vitamins in the product is to use it in the cold meal. Also, do not cook meals with this delicacy in a metal bowl, as biologically active substances always undergo the destruction process in contact with the metal.

Among the many benefits it is worth noting the fact that cedar oil in its composition does not yield the animal fat, so it is quite in demand and has been successfully used in vegetarian cuisine. The high content of vitamin E allows recommending its inclusion into the diet of the pregnant and lactating women, as it is vitamin E that plays an important role for the proper structure of the genetic processes and perfectly stimulates lactation.

#### HEMPSEED OIL EXTRA VIRGIN

**Manufactured by means of mechanical operations using the method of the first cold pressing.**

This wonderful useful vegetable oil is made according to the latest vitamin-preserving technology of hempseeds.



Since ancient times, the Slavic peoples made and ate delicious and very popular hempseed oil, having many useful properties, which are almost forgotten today. Hempseed oil has pleasant aroma of freshly cut grass.

This delicious oil adds subtle nutty pungent flavor to many dishes. Hempseed oil is an excellent alternative to olive oil and butter.

It is used as high-quality vegetable oil for dressing all sorts of salads and other cold vegetable meal. It is successfully used when roasting on the grill, pan-frying, as well as in marinades and sauces.

#### Hempseed oil composition and benefits

According to the chemical composition, hemp oil is the closest to the linseed oil but as opposed to it this tasty oil has delicate nutty pungent flavor. Hempseed oil along with linseed oil, green leafy vegetables and fish oil is one of the few food products that contain the necessary for our body inactive form of polyunsaturated fatty acids, i.e. OMEGA-3. Apart from the many vitamins that are so rich in hemp oil, it contains minerals of zinc, calcium, iron, manganese, phosphorus, potassium and sulfur. Valuable unsaturated fatty acids contained in the oil dry out harmful cholesterol from our body and increase immunity. Besides, hemp oil contains bactericides, glycerides and amino acids.

Two important fatty acids contained in hempseed oil are needed for growth and maintaining the cell membranes. These are linoleic and alpha-linoleic acids. Unrefined hempseed oil contains up to 60% linoleic acid. Alpha-linoleic acid is mainly contained in algae, in shellfish meat and fish oil. Only a few seeds of higher plants contain substantial contents of this essential acid: hemp, flax and soy.

Location of essential fatty acids in hempseed oil is one of the most favourable for an individual. The need for these essential fatty acids by the body may be satisfied with 2-4 teaspoons of hempseed oil per day.

Hempseed oil is recommended:

- in diseases of the prostate gland;
- in diseases of the genital organs;
- in diseases of the bladder and kidneys;
- in diseases of the heart and blood vessels (atherosclerosis and coronary heart disease);
- in the treatment of catarrh of the upper respiratory tract;
- in chronic and acute bronchitis.

Hemp seeds have been used for food by humans for a long time. According to scientific research, hemp seed is just a fantastic food product that contains almost all the necessary amino acids, unsaturated fatty acids in an optimum ratio, a lot of vitamins and microelements. For centuries in Russia people made oil of hemp seed, which was deservedly famous for its nutritional and medicinal qualities. This oil, together with linseed oil, was the main vegetable oil in the ration in Russia but in the 18-19th centuries it gradually yielded the pas to the cheaper sunflower oil.

Recently, however, with the efforts of enthusiasts production of hempseed oil gradually restores, and consumers can see the product on store shelves once again. This oil has a bit strange light green colour, nice aroma and a slightly sour taste. It is produced of hemp seed by means of cold press, so it fully retains all the useful qualities of the original product.

Hempseed oil as health food made its name only recently, but declared itself very convincing. Hempseed oil is a rich source of OMEGA-3 fatty acids, which are sometimes in severe shortage for the human body.

The main components of hempseed oil, as well as any other vegetable oils are fatty acids (99.9%). The only thing is that fats are different, and their combination differs in every kind of oil. Let us consider



the composition of hemp oil in greater detail:

- fat: unsaturated fatty acids: OMEGA-3 (20-22%), OMEGA-6 (56-57%), OMEGA-9 (11-12%), saturated fatty acid (8-11%), palmitic acid (8 %), stearic acid (2%), arachidonic acid (1%) fatty acids;
- vitamins: A, B1, B2, B4 (choline), B6, C, D, E, K;
- phytosterols;
- carotenoids;
- chlorophyll;
- micro-and macroelements: iron, potassium, calcium, magnesium, manganese, sodium, sulfur, phosphorus, zinc;
- tetrahydrocannadibiol is a substance, having the strongest psychoactive effect. Its concentration in hemp oil is very low (and in some kinds of this oil is absent), somewhere 1:1000000. In order to show some of its effects, it is necessary to drink at the same time about 6 to 9 liters of hemp oil, which is practically impossible. In recent years anticancer activity of this substance has been proven.
- cannadibiol is a substance, which does not have any effect on the psyche, but it has a direct impact on the system of anandamides, which are produced by the human body and are responsible for the body's response in the event of the immune system failure.

Probably no one would argue that the human body needs fats for full metabolism processes. But there are only two types of fat that cannot be synthesized by our body on its own. These are OMEGA-3 and OMEGA-6 fatty acids. And they are needed by the human body in a certain ratio. So, this ratio contained in hemp oil is very close to ideal. For comparison, we present data on the ratio of OMEGA-3 to OMEGA-6 in other oils, containing them: hemp oil – 1:3, linseed oil – 4:1, rapeseed oil – 1:2, soybean oil – 1:7.

This oil is a product of high biological activity, proven by the long history of its use! In addition, hempseed oil is perhaps the only stuff, which is absorbed almost 100% by the human body.

#### GARLIC SUNFLOWER OIL EXTRA VIRGIN

##### **Manufactured by means of mechanical operations using the method of the first cold pressing.**

This delicious, extremely fragrant garlic oil extract is produced by means of garlic preinfusion on unrefined sunflower oil.

In the process of garlic oil production by cold pressing method the oil is not processed with alkali, extraction method is not applied, and no hexane fraction is used; no chemical additives or pigments are used. Its molecules are preserved alive and natural. The oils produced by such method are valued for their nutritional and therapeutic properties. They contain all necessary and useful elements and vitamins that are perfectly perceived by living cells.

Food that is cooked with the help of unrefined oils is not only very delicious but at the same time is very useful as it doesn't cause obesity and vascular occlusion. Such food may even help to work off excess weight.

Choosing unrefined oils we can cleanse our body and improve internal organs state; we can look well and feel ourselves much better.

Daily usage of unrefined oils provides not only a therapeutic benefit but prevents the occurrence of many age-related diseases as well as diseases caused by unhealthy urban environment: sclerosis, obesity, gastritis, impotency, etc. So, instead of taking expensive chemical medicines that are sold in pharmacies or buying much advertised BADs (biologically active additives) made of unknown ingredients it is better to choose natural unrefined oils produced by cold pressing method that conclude all





therapeutic properties of plants.

No wonder one the most popular folk remedies is unrefined oil. The folk medicine compared to official one is better as it contains only natural ingredients the most part of which do not have counterindications and side effects.

Any unrefined oil produced by cold pressing method has the highest nutritional and therapeutic value unlike refined oil produced by method of extraction. When producing oil by means of cold pressing method the maximum number of vitamins, minerals and biologically active additives are preserved defining various unique properties of this oil. Unfortunately, nowadays another method of edible oil producing is mainly used, that is the method of extraction. When using such method the oil quality is much lower but its amount is much higher than in case of using cold pressing method. In this regard the prime cost of refined extraction oil is enormously lower than the price of unrefined oil. Unfortunately, due to this you can hardly find today a natural unrefined oil produced by cold pressing method on the shelves of supermarkets and pharmacies. What we see on these very shelves is cheap refined extraction oil!

This oil doesn't have a strong smell and imparts a pleasant garlic taste and piquant fragrance to first courses, vegetable salads, vinegrets (beetroot salads), side dishes, meat and vegetables dishes, salted and pickled mushrooms, boiled potatoes, cereals, sauces and marinades. It is ideal for home canning.

Garlic sunflower oil gives a great opportunity to vary the daily menu providing health benefits.

Garlic sunflower oil composition and benefits

Except cooking, unique healing properties of raw-pressed garlic unrefined oil are widely used in folk and traditional medicine for the treatment and prevention of a number of diseases.

THIS OIL CONTAINS:

Vitamins (C, E, D, F, A, K, B1, B2, B3, B5, B6, B7, B9), active biological compounds, inulin, vital minerals (iodine, selenium, organic phosphorus, sodium, silicon, calcium, magnesium, potassium, germanium), phytoncids, phytosterols; glycoside-glucamine, allyl, nitrogenous matters, pyruvic, phosphoric, sulfuric, silicic acids, ajoene, sulphur, taurine, and polysaccharides.

The scientists have found in garlic composition 200 identified components that have biological activity. 8 of 17 amino acids contained in garlic belong to the group of essentials.

Thanks to nutrients and balanced composition of vitamins C and E with disulfides, garlic oil is a very powerful antioxidant.

Vitamin E is the most powerful natural antioxidant. It helps to protect immune system from damage caused by the aging of the body, effects positively on the formation of sex hormones, inhibits the development of atherosclerosis, prevents formation of blood clots and sclerotic plaques, and removes from the body free radicals that trigger the development of oncological diseases. The lack of vitamin E leads to decrease in immunity.

The content of vitamin E in unrefined oil is 12 times higher than in olive oil!

Vitamin E is a complex of polyunsaturated fatty acids. It prevents the deposition of cholesterol in arteries, provides healthy skin and hair, affects the activity of the endocrine glands, helps with burning of unsaturated fat, which leads to weight loss.

Vitamin A is a vitamin of "growth" that insures a normal development of the body. It affects positively on eyesight, immune system and lungs functioning. It is one of the means of prevention and treatment of cancer diseases.

Vitamin D influences on mineral metabolism.



Vitamin K is important for normal blood clotting and muscle function. This vitamin is called antihemorrhagic vitamin as it regulates the blood clotting mechanism protecting people from internal and external bleeding on various injuries. Also, vitamin K is involved into osteocalcin synthesis, ensuring thereby the formation and recovery of bone tissues. It prevents osteoporosis, ensures the normal kidneys function, regulates many oxidation-reduction processes in the body, delivers antibacterial and analgesic action.

Vitamin C (ascorbic acid) doesn't accumulate in the body, and its resources should be renewed from the outside. Vitamin C, as a powerful antioxidant, protects the body from bacteria and viruses, has anti-inflammatory and anti-allergic effect, strengthens the immune system and enhances the action of other antioxidants such as selenium and vitamin E. Taking large doses of vitamin C helps to overcome any cold and speed up the wound healing. Also, vitamin C affects the synthesis of anti-stress hormones, regulates hematopoiesis and normalizes capillary permeability, participating in the collagen synthesis that is necessary for growth of cells, tissues, bones and cartilages of the body. Vitamin C helps the body to absorb calcium, removes toxins and regulates metabolism. According to the latest data, vitamin C has anti-cancer properties, reduces intoxication in the body of drug takers and drinkers, and slows down aging of the body.

B-group vitamins are very useful for health. They split carbohydrates and glucose providing thereby the human body with necessary vitality. They also split fats and proteins, support normal functioning of central nervous system, and stimulate the gastrointestinal tract. B-group vitamins improve the condition of skin, hair, eyes and mouth cavity; they maintain muscle tone and improve functions of immune and nervous systems.

Inulin improves metabolism, cleanses the body, reduces and normalizes blood sugar level, decreases hunger, facilitates cleansing of the alimentary tract and helps those people who have obesity to reduce their weight. Inulin is especially important for those who have unbalanced nutrition, acute or chronic enteropathy, constipations, obesity, and those who abuse of carbohydrate and starch products. It improves digestion in gastrointestinal tract, reduces manifestation of the digestive system diseases and intestinal flora disorders; also it prevents dysbacteriosis.

Iodine is an essential microelement involved into thyroxine formation. The lack of iodine in the body causes the development of the goiter disease.

Selenium performs the following functions in the body:

- strengthens the immune system (stimulates macrophages and interferon formation, participates in red blood cells formation);
- acts as a powerful antioxidant (prevents the development of neoplastic processes and aging of the body);
- neutralizes and removes harmful substances, and activates vitamin C;
- reduces the risk of the development of cardiovascular diseases (prevents heart muscular dystrophy, neutralizes toxins, stimulates hemoglobin synthesis, participates in red blood cells formation);
- acts as a powerful antitumour factor (prevents and stops the development of malignant tumors);
- stimulates metabolic processes in the body;
- stimulates the reproductive system;
- stabilizes the functioning of nervous system;

- normalizes the functioning of endocrine system;
- reduces the severity of inflammatory processes;
- has a beneficial effect on the condition of skin, hair and nails.

Phytoncids are natural antibiotics. Phytoncids, as protectors, not only destroy microorganisms but stop their reproduction. They stimulate vital activity of those microorganisms that are antagonists of pathogenic forms. Even microscopic doses of phytoncids can stop the development and reproduction of some microorganisms and stimulate the growth of others. None of the products can contain such a quantity of phytoncids as garlic!

Phytosterols play a key role in men's reproductive health.

Numerous biological properties of phytosterols are as follows:

- powerful immune-modeling properties;
- reduction of the cholesterol level;
- cancer-protective properties;
- hypoglycemic and antioxidant properties.
- Sulfur performs a lot of important functions for the body:
- participates in metabolic processes and supports their normalization;
- improves the functioning of nervous system;
- stabilizes the blood sugar level;
- reinforces the immune system;
- has anti-allergic effect;
- maintains the oxygen balance;
- participates in the formation of bone and cartilaginous tissues, and improves the functioning of joints and ligaments;
- influences positively on hair, skin and nails condition;
- strengthens muscle tissues (especially in childhood and adolescence);
- has wound healing and anti-inflammatory effect;
- reduces muscle and joint pain as well as convulsions;
- helps to neutralize and remove the wastes and toxins from the body;
- affects positively the blood coagulability;
- participates in the bile flowing out of the liver;
- increases the immunity to radio frequencies.

#### AMARANTH OIL EXTRA VIRGIN

##### **Produced by means of mechanical operation using the method of the first cold pressing**

This dietary delicious oil is made by special vitamins saving technology of the seeds of amaranth.

In the production of amaranth oil by the cold pressing method, alkali treatment and extraction method are not used, hexane fraction is not used, no chemical additives and dyes are used. Its molecules are kept "alive" and natural. The oils produced in this way are the most valuable for nutritional and medicinal properties, they retain all the necessary and useful elements and vitamins, which are very well perceived by alive cells.

Cooked based on unrefined vegetable oils, the food, besides the excellent taste, is also very useful, since it does not cause obesity and blockage of blood vessels. Such food even helps to lose weight.

Having decided on unrefined vegetable oils, we cleanse our bodies, improve the condition of



internal organs, look and feel much better.

Unrefined oils, when used on a daily basis, not only treat, but also prevent the appearance of many age-related diseases and diseases caused by unhealthy urban ecology: sclerosis, obesity, gastritis, impotence, etc. ... Therefore, instead of taking expensive medicinal drugs of chemical origin, sold in pharmacies, or to purchase widely advertised, unknown from what made dietary supplements (biologically active additives), it is better to switch to natural unrefined vegetable oils, cold pressed, carrying all the positive healing power of plants.

And for good reason it is that one of the most popular traditional medicine is unrefined oils. And traditional medicine, unlike the official one, is so good that it uses exclusively natural remedies in its arsenal, most of which have no contraindications and side effects.

Any unrefined vegetable oil obtained by the method of cold pressing has the highest food and medicinal value, in contrast to the refined oil obtained by the extraction method. When obtaining oil by the method of cold pressing, the maximum of vitamins, minerals and biologically active substances, which determine the various unique properties of this oil, is preserved. Unfortunately, at present the other method of obtaining edible vegetable oils is mainly used – the extraction method. With this method, oil is much worse, but with extraction, the yield of oil is much higher than when it is produced by cold pressing, and therefore the cost of extraction of refined oil is always incommensurably lower than it is of unrefined oil. Because of this, unfortunately, on the shelves of supermarkets and pharmacies today it is very difficult to find a real unrefined vegetable oil made by cold pressing. And what we see on the shelves is cheap, refined vegetable oils!

Amaranth oil has a pleasant aroma and a delicate nutty taste. Used for cooking a variety of cold dishes, salads, cabbage, vinaigrettes, sauces. It is very tasty and it is useful to mix with cottage cheese and greens, fill any porridge, boiled potatoes, add in the first and second dishes. When you add amaranth oil, soups, cereals, salads and a variety of pastries become more nourishing, tasty and useful.

Can be used in combination with other oils.

Composition and useful properties of amaranth oil

Amaranth oil is a natural food, a product of increased biological value, a product of dietary use.

Even the ancient Aztecs knew that seeds of amaranth strengthen the body, give strength and longevity, prolong youth and increase resistance to diseases. And the ancient Greeks called amaranth “a symbol of immortality.”

The amaranth is greatly increased in popularity owes to American scientists. In the USA, Canada, Australia, China and India, amaranth is actively introduced into the food industry. It is increasingly used for baby food and dietetics. Thanks to its nutritional value and dietary properties, amaranth is called a “culture of the future”.

The most valuable product from amaranth is amaranth oil. Amaranth oil is an inexhaustible source of beneficial substances for the body: the irreplaceable higher polyunsaturated fatty acids OMEGA-3, OMEGA-6, OMEGA-9; Vitamins B1, B2, B3, B4, B5, PP, E, P, D; Macro- and microelements (calcium, potassium, iron, sodium, magnesium, zinc, copper, phosphorus); Amino acids (arginine, valine, alanine, glutamic acid, histamine, histidine, isoleucine, lecithin, leucine, lysine, methionine, proline, tryptophan, threonine, tyrosine, phenylalanine, serotonin); Phospholipids; Carotenoids; Squalane; Phytosterols; Quercetin; chlorophyll.

Amaranth seeds have a whole complex of useful substances, but it is the truly unique product thanks to incredibly strong antioxidant squalene and vitamin E in a particularly active tocotrienol form. The antioxidant properties of vitamin E in this form are 40-50 times higher than in the usual passive



tocopherol form.

**Squalene** was first isolated in the 30s of the last century by Japanese scientists from the liver of deep-sea sharks. Until recently, it was believed that there was no other squalene source. Modern scientists have proven that squalene is an integral part of our subcutaneous fat. The content of squalene in the blood of an adult increases sharply with skin damage, which indirectly confirms its immunity-mediating role. A number of studies also confirm the positive effect of squalene in the normalization of cholesterol metabolism. Squalene has unique wound-healing properties. It easily copes with most skin diseases, including eczema, psoriasis and even trophic ulcers. Getting into the human body, squalene activates the recovery processes, which contributes to the healing of ulcers and any other damage to the tissues of internal organs. Squalene plays a huge role in protecting our skin from aging. Thanks to it, the skin retains elasticity, softness and velvety, while, thanks to its antibacterial properties, squalene protects the skin also from pathogenic bacteria. In addition, squalene improves the synthesis of vitamin D in the human body.

**Active vitamin E**, contained in seeds of amaranth, is a remarkable natural antioxidant. It neutralizes the effect of free radicals, improves cellular respiration, maintains visual acuity, relieves fatigue, raises mood and prevents aging. In people, vitamin E is called the “vitamin of female beauty”.

Amaranth seeds are valued for a high and well-balanced content of amino acids, which greatly increases their benefits.

**Lysine**, which is part of the seeds of amaranth, has pronounced antiviral properties. It also contributes to the normal functioning of the heart and circulatory system. With the help of lysine, enzymes and hormones are synthesized. With his participation, the formation of antibodies occurs.

**Methionine** which is in the seeds of amaranth, protects the body from the damaging effects of salts of heavy metals and radiation.

**Tryptophan** in amaranth seeds, resulting in normal metabolic processes in the human body.

The number of proteins that are part of the amaranth seed, are higher than in soybeans and wheat. The protein of amaranth seeds is equal to the milk protein in its nutritional value.

Amaranth oil should be consumed for:

- Atherosclerosis
- Diseases of the nervous system, mental disorders, depression, insomnia, lethargy
- Hematomas, skin lesions, fresh postoperative scars
- Mastopathy and mastitis
- Dermatological diseases (trophic ulcers, eczema, psoriasis, neurodermatitis, dermatitis, etc.), as well as with burns
- Inflammation of the oral cavity (stomatitis and ulcers on the gums)
- Gynecological diseases and diseases of the male genitourinary system
- Type 2 diabetes
- Obesity and the appearance of stretch marks on the skin
- Elimination of cellulite and correction of problem areas on the skin
- Violation of metabolic reactions in the body
- Malfunction of hormonal and immune systems
- Manifestations of toxicosis in pregnant women
- Erosion processes
- Anemia (lack of iron in the body)

- Problems of the functioning of the digestive system
- Diseases of the eyes (conjunctivitis, cataract)
- Recovery from serious illnesses, surgeries and prolonged use of antibiotics
- Increased physical activity

With the use of amaranth seeds, the pathogenic microflora in the body dies, the work of the liver and kidneys improves, the quality indicators of urine and blood are normalized, and the secretory glands and circulatory system work, and immunity rises. Amaranth oil is used as a dietary product that increases immunity. Also, amaranth oil is recommended to include in the diet of the elderly, children, pregnant and breastfeeding women.

According to the international classification, seeds of amaranth, rejuvenating the body and promoting longevity, are included in the group of the most valuable health products – **Superfood**.

#### COMPOSITION AND USEFUL PROPERTIES OF AMARANTH SEEDS OIL

Amaranth seed oil is an inexhaustible source of substances useful to the human body.

One of the main advantages of amaranth oil is the high content of vitamin E and the recently discovered biological hydrocarbon compound squalene.

#### **Vitamin E**

Vitamin E, which is concentrated in amaranth oil in big amount, is a natural antioxidant necessary for our body to fight cancer cells, to maintain youth and physical activity for many years, to protect the body from harmful environmental factors. This vitamin strengthens the walls of blood vessels, removes excess cholesterol and reduces the risk of blood clots. Vitamin E is contained in amaranth oil in such concentration, in which it can not be found in any other vegetable oil. At the same time, vitamin E is represented in amaranth seeds oil, in a particularly active tocotrienol form. It is vitamin E that reduces the risk of oncology. Its regular use keeps the whole body toned, including its reflects on the skin – it becomes tight and elastic, wrinkles tend to smooth out. Also, vitamin E plays an important role in maintaining the normal operation of the visual apparatus, improves eyesight and helps the eyes to work fully.

#### **Squalene**

Squalene is a unique substance that until recently was only obtained from the liver of sharks as far back as the thirties of the twentieth century and until recently it was thought to be the only source for obtaining this incredibly strong antioxidant. Squalene is able to react with any fluids of the human body, releasing from them the oxygen necessary for all organs and tissues, and also, preventing oxidative processes in the body, it participates in the synthesis of hormones and vitamin D in the body. As a result, the cells are rejuvenated, the process of their malignant division is inhibited, the protective forces of the body are increased, the aging of the entire organism slows down. A substance with such important properties is found in amaranth oil. The content of squalene in amaranth oil is almost 10% of the total mass, while in the liver of the shark it is only 1.5%. Squalene plays a huge role in protecting our skin from aging. Thanks to it, the skin retains its elasticity, maintains the optimum amount of moisture, provides softness and velvety of the skin. Also, it protects it from penetration of pathogenic bacteria, thanks to its antibacterial properties. The concentration of squalene in the skin begins to gradually decline after 25 years, so from the onset of this age it is worthwhile to think about additional sources of obtaining this youth-preserving substance.

#### **Unsaturated fatty acids OMEGA-3 and OMEGA-6**

The value of amaranth seed oil is caused by the high number of unsaturated fatty acids OMEGA-3 and OMEGA-6, which have a huge impact on lipid metabolism, triglyceride levels and blood pressure in



the human body.

### **Carotenoids**

Carotenoids in the process of human life become vitamin A, necessary for the formation of collagen, hormones, and important for the health of the eyes, bones, teeth, and skin. Vitamin A is called a vitamin of youth because of its ability to rejuvenate skin cells, and this vitamin is present in amaranth seed oil in large quantities.

### **Vitamin D**

Another important vitamin in the amaranth seed oil is vitamin D, without which the body does not absorb the calcium needed to maintain the health of our bones and teeth. This vitamin is necessary for the immune and endocrine systems of man.

### **Calcium**

Calcium plays a big role at any age – in children it is necessary for correct formation of bones, during pregnancy it ensures normal development of the fetus and supports the future mother's organism. In the mature age it helps to carry all the stresses on the spine, in old age it is necessary to maintain the state of the bone system. The amount of calcium in amaranth oil is greater than in whole milk. Therefore it is the amaranth oil that makes sense to include in your diet for calcium supplementation in the body.

### **Minerals**

Amaranth seed oil contains mineral substances such as iron, calcium, phosphorus, potassium, without which it is impossible to maintain health for many years, as well as phospholipids, phytosterols, amino acids.

### **Phospholipids**

The presence of a large amount of phospholipids in the oil of amaranth seeds helps maintain normal fat metabolism, improves metabolism, normalizes metabolism in the body and if there is any failure in the organs, these substances rush to restore the established work. Also, phospholipids help to regulate the sugar (glucose) content in a person's blood. This means that with diabetes of the second type, this product is mandatory for inclusion in the patient's diet.

### **Sterols**

Amaranth oil, containing a large number of sterols, will be very useful for people involved in sports, as well as for those who experience heavy physical activity. Sterols are used as anabolic agents that help the body to adapt more quickly to physical stress.

### **Oxygen**

Amaranth seed oil is a source of oxygen within the human body. And oxygen is necessary for us to preserve health and youth.

Due to its composition, amaranth oil has anti-inflammatory, antiseptic, antitumor, hepatoprotective, immunity-enhancing effect. It can be recommended for use in food along with other vegetable oils to maintain health and prevent many diseases.

In medicine, amaranth oil can be successfully used in the treatment of diabetes and cancer.

Composition of amaranth oil

- **Fats:** OMEGA-3 (about 2%), OMEGA-6 (50%), OMEGA-9 (24%), as well as saturated fatty acids (palmitic, stearic).
- **Vitamins:** B1, B2, B3 (Vit. PP), B4, B5, D, E (холин), R.
- **Macro and microelements:** calcium, potassium, iron, sodium, magnesium, copper, zinc, phosphorus.



- **Amino acids:** arginine, alanine, valine, glutamic acid, histamine, histidine, isoleucine, lecithin, leucine, lysine, methionine, proline, series, tryptophan, threonine, tyrosine, phenylalanine.
- **Biogenic amines:** serotonin.
- **Phospholipids** (about 9%).
- **Carotenoids.**
- **Squalene** (up to 8%).
- **Phytosterols.**
- **Quercetin.**
- **Rutin (Vitamin R).**
- **Chlorophylls.**
- **Bile acids.**
- Amaranth oil should be included in the daily diet:
  - with a lack of iron (anemia);
  - with diseases of the stomach, gastroenteritis, ulcer – amaranth oil suppresses inflammatory processes and restores cells;
  - with heart diseases, hypertension, myocarditis, varicose veins – amaranth oil prevents the formation of thrombi, dilates blood vessels and lowers blood pressure;
  - with skin lesions of various origins (burns, cuts), as well as dermatological diseases (psoriasis, eczema, acne) – amaranth oil has a bactericidal effect, it should be rubbed into damaged areas of the skin or applied compresses for a guaranteed result;
  - with dental diseases such as stomatitis, gum disease, parodontosis – amaranth oil effectively fights inflammatory processes and relieves pain, shows mouth rinsing twice a day;
  - with obesity and diabetes – amaranth oil actively improves the work on burning calories and fat, maintains blood glucose levels;
  - with female and male diseases of the gynecological direction and genitourinary system (cervical erosion, cystitis, endometritis, myoma – in women, male infertility, inflammatory and prostatic diseases in men);
  - with diseases of the visual system (conjunctivitis, cataract) – the diseases are less acute and without complications when ingested amaranth oil daily as a refueling to vegetables and cereals;
  - with diseases of the nervous system, sleep disorders, depression, psychoemotional overwork. Amaranth oil has an antidepressant effect, activating in the body the action of serotonin – a hormone of joy, which favorably affects the nervous system as a whole and fills the body with energy.

Also, amaranth oil can be consumed in its pure form to help with the loss of strength, restoration of immunity after protracted illnesses and taking antibiotics. If you decide to try amaranth oil, applying it will not cause you any difficulties. Daily allowance is 0.5 tsp. Three times a day with meals. The course of use is 2 weeks.

#### Contraindications to the use of amaranth oil

The seed oil of amaranth oil has practically no contraindications. Perhaps, it is worth noting only individual intolerance.

At the beginning of the usage of amaranth oil, unpleasant sensations can arise which can be interpreted as a contraindication, in fact it is not so. Dizziness, loose stools, nausea and heartburn, which can occur at the very beginning of use, are due to squalene, which actively promotes the rapid saturation of the body with oxygen. But these manifestations are short. They quickly pass and are no



longer manifest.

Before using amaranth oil, it is correct to consult a doctor, especially people prone to chronic diseases.

#### MACADAMIA NUT OIL EXTRA VIRGIN

##### **Produced by means of mechanical operation using the method of the first cold pressing**

This delicate unique vegetable oil is produced according to special vitamin-preserving technology using Australian macadamia nut kernels.

In the process of macadamia nut oil production by cold pressing method the oil is not processed with alkali, extraction method is not applied, and no hexane fraction is used; no chemical additives or pigments are used. Its molecules are preserved alive and natural. The oils produced by such method are valued for their nutritional and therapeutic properties. They contain all necessary and useful elements and vitamins that are perfectly perceived by living cells.

Food that is cooked with the help of unrefined oils is not only very delicious but at the same time is very useful as it doesn't cause obesity and vascular occlusion. Such food may even help to work off excess weight.

Choosing unrefined oils we can cleanse our body and improve internal organs state; we can look well and feel ourselves much better.

Daily usage of unrefined oils provides not only a therapeutic benefit but prevents the occurrence of many age-related diseases as well as diseases caused by unhealthy urban environment: sclerosis, obesity, gastritis, impotency, etc. So, instead of buying expensive chemical medicines in pharmacies or much advertised BADs (biologically active additives) made of unknown ingredients it is better to choose natural unrefined oils produced by cold pressing method — they contain all therapeutic properties of plants.

No wonder one of the most popular folk remedies is unrefined oil. The folk medicine compared to official one is better as it contains only natural ingredients the most part of which do not have counterindications and side effects.

Any unrefined oil produced by cold pressing method has the highest nutritional and therapeutic value unlike refined oil produced by method of extraction. When producing oil by means of cold pressing method the maximum number of vitamins, minerals and biologically active additives are preserved defining various unique properties of this oil. Unfortunately, nowadays another method of edible vegetable oil production is mainly used, that is the method of extraction. When using such method the oil quality is much lower but its amount is much higher than in case of using cold pressing method. In this regard, the prime cost of refined extraction oil is enormously lower than the price of unrefined oil. Unfortunately, due to this you can hardly find today natural unrefined oil produced by cold pressing method on the shelves of supermarkets and pharmacies. What we see on these very shelves is cheap refined extraction oil!

This exotic macadamia nut oil has a sweet fragrance and delicate flavor. Such flavor and nut fragrance are preserved even when consuming in small amounts. Excellent cooking properties of this rare exotic product had been valued many years ago on their motherland in Australia where the cooks had simply created a cult of this oil. Macadamia nut oil has very pleasant and complex flavor. It is the most delicious oil and healthy dressing for salads, sauces, pasta, stewed and baked dishes. This oil tastes good with seafood, fish and vegetables. It is used to grill and fry meat and poultry. Add some drops of this exotic oil to give pleasant flavor to ready meals. Also, you can just drizzle or spread the dish with it.



Macadamia nut oil has sufficiently high smoking point (400–450°C), so it is perfect for frying, and at the same time it preserves its fragrance at very high temperatures. It improves the flavor and fragrance of home-baked products.

You can add this oil to any dish making it not only more spicy and interesting but more healthy as well. Food that is cooked with the help of macadamia nut oil is not only very delicious but at the same time is very healthy as it doesn't cause obesity and vascular occlusion. Such food may even help to work off excess weight. Choosing unrefined macadamia nut oil we can cleanse our body and improve internal organs state; we can even look better.

#### Macadamia nut oil composition and benefits

Macadamia nut oil is the fount of most valuable vitamins and amino acids. It contains a lot of nutrients and has a unique vitamin and mineral composition: vitamins (E, A, F, B1, B2, B5, niacin, folate, PP), high content of selenium, potassium, zinc, copper, phosphorus, calcium, sodium and other microelements, as well as polyunsaturated and monounsaturated fatty acids.

Vitamin E is the most powerful natural antioxidant. It helps to protect the immune system from damage caused by the aging of the body, effects positively on the formation of sex hormones, inhibits the development of atherosclerosis, prevents formation of the blood clots and sclerotic plaques, and removes from the body free radicals that trigger the development of oncological diseases.

Vitamin E deficiency leads to decrease in immunity.

Vitamin F is a complex of polyunsaturated fatty acids. It prevents the deposition of cholesterol in arteries, provides healthy skin and hair, affects the activity of the endocrine glands, and helps to burn unsaturated fat leading to the weight loss.

Vitamin A is considered to be a vitamin of 'growth' that insures a normal development of the body. It influences positively on eyesight, immune system and lungs functioning. It is one of the means of prevention and treatment of cancer diseases.

B-group vitamins are very useful for health. They split carbohydrates and glucose providing thereby the human body with necessary vitality. They also split fats and proteins, support normal functioning of central nervous system, and stimulate the gastrointestinal tract. B-group vitamins improve the condition of skin, hair, eyes and mouth cavity; they maintain muscle tone and improve functions of immune and nervous systems.

PP vitamin (niacin) actually is the most effective means that normalizes the content of 'bad' cholesterol level in the blood. It is critical for the vitality production; it also improves heart and circulatory system functioning, participates in more than 50 reactions where sugar and fat transform into vitality. PP vitamin is necessary for amino acid metabolism and participates in fats transformation into substances that control metabolic pathways in the body. It regulates oxidation-reduction processes in the body, facilitates normal tissue growth, has a beneficial effect on fat metabolism, and participates in sugar and fat transformation into vitality. Thanks to this vitamin a person is protected against cardiovascular diseases, thrombosis, hypertension, and diabetes. Normal functioning of the nervous system, stomach and alimentary tract as well as functioning of the liver and pancreas is not possible without PP vitamin. PP vitamin is involved into formation of such hormones as estrogen, progesterone, testosterone, insulin, cortisone, thyroxine that are important for normal functioning of many body organs and systems.

Selenium performs the following functions in the body:

- strengthens the immune system (stimulates macrophages and interferon formation, participates in red blood cells formation);

- acts as a powerful antioxidant (prevents the development of neoplastic processes and aging of the body);
- neutralizes and removes harmful substances from the body, and activates vitamin C;
- reduces the risk of the development of cardiovascular diseases (prevents heart muscular dystrophy, neutralizes toxins, stimulates hemoglobin synthesis, participates in red blood cells formation);
- acts as a powerful antitumour factor (prevents and stops the development of malignant tumors);
- stimulates metabolic processes in the body;
- stimulates the reproductive system;
- stabilizes the functioning of nervous system;
- normalizes the functioning of endocrine system;
- reduces the severity of inflammatory processes;
- has a beneficial effect on the condition of skin, hair and nails.

Due to high palmitoleic acid content, macadamia nut oil is considered to be the vegetable alternative to mink fat. Thanks to its composition and properties this precious oil is similar to those oils that are extracted from marine mammals (spermaceti oil). Palmitoleic acid is not practically found in other plants but it contains in the human skin. As a person gets older its content gradually decreases. Thanks to palmitoleic acid content macadamia nut oil prolongs the youthfulness of the skin.

#### BLACK CUMIN OIL EXTRA VIRGIN

##### **Produced by means of mechanical operation using the method of the first cold pressing**

This delicious, extraordinarily aromatic oil extract of black cumin is made by the method of infusion of the seeds of black cumin on unrefined sunflower oil.

In the production of black cumin oil by the cold pressing method, alkali treatment and extraction method are not used, hexane fraction is not used, no chemical additives and dyes are used. Its molecules are kept “alive” and natural. The oils produced in this way are the most valuable for nutritional and medicinal properties, they retain all the necessary and useful elements and vitamins, which are very well perceived by alive cells.

Cooked based on unrefined vegetable oils, the food, besides the excellent taste, is also very useful, since it does not cause obesity and blockage of blood vessels. Such food even helps to lose weight.

Having decided on unrefined vegetable oils, we cleanse our bodies, improve the condition of internal organs, look and feel much better.

Unrefined oils, when used on a daily basis, not only treat, but also prevent the appearance of many age-related diseases and diseases caused by unhealthy urban ecology: sclerosis, obesity, gastritis, impotence, etc. ... Therefore, instead of taking expensive medicinal drugs of chemical origin, sold in pharmacies, or to purchase widely advertised, unknown from what made dietary supplements (biologically active additives), it is better to switch to natural unrefined vegetable oils, cold pressed, carrying all the positive healing power of plants.

And for good reason it is that one of the most popular traditional medicine is unrefined oils. And traditional medicine, unlike the official one, is so good that it uses exclusively natural remedies in its arsenal, most of which have no contraindications and side effects.

Any unrefined vegetable oil obtained by the method of cold pressing has the highest food and

medicinal value, in contrast to the refined oil obtained by the extraction method. When obtaining oil by the method of cold pressing, the maximum of vitamins, minerals and biologically active substances, which determine the various unique properties of this oil, is preserved. Unfortunately, at present the other method of obtaining edible vegetable oils is mainly used – the extraction method. With this method, oil is much worse, but with extraction, the yield of oil is much higher than when it is produced by cold pressing, and therefore the cost of extraction of refined oil is always incommensurably lower than it is of unrefined oil. Because of this, unfortunately, on the shelves of supermarkets and pharmacies today it is very difficult to find a real unrefined vegetable oil made by cold pressing. And what we see on the shelves is cheap, refined vegetable oils!

Black cumin oil is used in soups, cereals, vegetable dishes, sauces and salads. It is added to pickles when pickling tomatoes, cucumbers, mushrooms and watermelons, when cabbage is sour, as well as spicy seasoning in many dishes. Due to the acute, light-bitter taste of black cumin oil, freshly baked homemade bread and other pastries cooked with its use, are especially delicious and aromatic. This oil can be mixed with juices or consumed separately, washed down with warm tea to weaken its spicy smell.

Oil of black cumin more than two thousand years is used in the Muslim world as a rare and effective medicinal product. The healing effect of oil of black cumin was known even in the times of Hippocrates and Dioscorides. Avicenna claimed that it increases the vital energy of a person, helps in the fight against fatigue and overwork. Since the rulers of the Middle East used the oil of black cumin to maintain health and longevity, it was named “royal oil”.

The oil of black cumin has a high concentration of many strong human active biologically active substances.

Saturation with a natural antibiotic and various natural stimulants of the immune system allows the oil of black cumin to have an anti-inflammatory and bactericidal effect. It is also effective as a means of combating external infections – parasites and fungi.

Oil of black cumin has a common analgesic and soothing effect, and also has antispasmodic properties.

Since the oil of black cumin possesses choleric and diuretic properties, it is successfully used in the treatment of gastrointestinal and gallbladder diseases.

Destroying the bacteria of pathogens of various diseases (including even cholera), the oil of black cumin does not have a common but local effect and therefore does not affect the development of normal intestinal microflora and does not cause dysbiosis.

The richness of the oil of black cumin with the supreme essential polyunsaturated fatty acids OMEGA-3, OMEGA-6 and OMEGA-9, as well as the essential oils and vitamins B, E, C, A, D, PP, K contained in it makes it irreplaceable for prophylaxis fragility of blood vessels, strengthening them and increasing their elasticity. And this, in turn, contributes to lowering blood pressure, preventing the formation of blood clots, reducing the level of cholesterol in the blood. Essential OMEGA acids, contained in the oil of black cumin, improve the condition of the skin, help improve the state of the cardiovascular system and normalize the hormonal background and lipid metabolism, and also give the oil high anti-inflammatory properties. Black cumin oil contains a large number of valuable irreplaceable components, such as: macro- and microelements (calcium, potassium, iron, manganese, selenium, zinc, phosphorus, copper), amino acids, flavonoids, phytosterols, tannins and coumarins, saponins and enzymes, Limonene, carvone, beta-sitosterol.

High antioxidant properties of black cumin oil have a positive effect on the functioning of the



muscular system, increase the endurance of the body and strengthen its reproductive system. Due to plant hormones and a mass of other useful components, black cumin oil, when systematically used, increases libido and potency, helps treat female and male infertility.

Neutralizing the effect of free radicals, the oil of black cumin speeds up their excretion from the body.

Black cumin oil has a good wound healing ability, actively stimulates regeneration processes in damaged areas of the skin and mucous membranes, affects the production of the body's own collagen, helps to normalize blood glucose levels.

Due to the high content of phytosterols, the oil of black cumin possesses strong bactericidal, choleric and immunostimulating properties and lowers the level of cholesterol in the blood.

According to the results of research by American and Indonesian scientists, the oil of black cumin (*Nigella Sativa*) proved to be not only a strong remedy that increases human immunity, but also surpassed by its antibacterial properties the five most powerful antibiotics. It proved to be an effective remedy even against such bacteria, which have the strongest resistance to medical preparations.

Systematic consumption of black cumin oil is an excellent prophylaxis of cardiovascular, endocrine and oncological (in particular, blood cancer) diseases.

Oil of black cumin has a beneficial effect on the skin of the face. Due to its bactericidal, antifungal, anti-inflammatory, antiviral and antiallergic properties, black cumin oil is successfully used in the treatment of acne, eczema, dermatitis, urticaria, psoriasis, various skin lesions having a fungal nature, warts, herpes, lichen and various dermatoses.

For preventive purposes, the oil of black cumin is recommended to take 1 tbsp. 2 times a day an hour before eating.

To improve digestion, oil of black cumin is recommended after eating.

Black cumin oil has excellent cosmetology properties: it makes hair stronger, prevents its loss, stimulates its growth, helps restore its original natural color. When caring for the skin, the oil of black cumin has a nourishing, softening, cleansing, tonic, tightening and smoothing action.

#### COMPOSITION AND USEFUL PROPERTIES OF OIL OF BLACK CUMIN

The black cumin oil, which has a high food and biological value, contains more than 100 different components, 50 of which are catalysts for metabolic processes occurring in the human body.

The black cumin oil contains unsaturated and saturated fatty acids, phospholipids (46% of which are phosphatidylcholines), 15 amino acids (including arginine), 8 of which are essential, carotenoids (precursors of vitamin A), vitamins E, D, C, vitamins of group B (B1, B2, B3, B6, B9), various macro- and microelements (potassium, sodium, phosphorus, calcium, manganese, iron, zinc, copper, selenium, nickel, etc.) Phytosterols (beta-sitosterol, campesterol, stigmasterol, etc.), flavonoids, tannins, polysaccharides and monosaccharides (glucose, xylon Etc.), alkaloids, enzymes, saponins, triterpene saponins, essential oils (up to 1.3%).

Black cumin oil is rich in unsaturated fatty acids (more than 85%) for the human body (in the fatty acid content of this natural plant product, the leading position is taken by linoleic polyunsaturated acid OMEGA-6 (up to 58%), the content of monounsaturated OMEGA-9 in black cumin oil reaches 24%). Other fatty acids are also present in black cumin oil: palmitic (up to 14%), stearic (up to 3.5%), arachine (up to 1.2%), myristic (up to 0.4%), linolenic (OMEGA- 3) (less than 0.2%), palmitoleic (about 0.1%).

Essential OMEGA-6 and OMEGA-9 fatty acids in the oil of black cumin help improve the performance of the cardiovascular, nervous and digestive systems, restore normal hormonal balance and normalize lipid metabolism, inhibit the development of inflammatory processes, and also have a

beneficial effect on the skin, play an important Role in strengthening the immune system and purifying the human body of all kinds of harmful substances.

As part of the oil of black cumin vitamin E, as well as unsaturated fatty acids, has an anti-inflammatory property, takes an active part in the formation of immunity, restores the water balance of the skin, improves the functioning of the heart and vessels. In addition, this powerful natural antioxidant, contained in the oil of black cumin seeds, has a beneficial effect on the functioning of the muscular system, contributing significantly to the increase of physical strength and endurance, plays a crucial role in the functioning of the human reproductive system and is necessary for full embryonic development.

The powerful wound healing ability of black cumin oil is largely due to the carotenoids contained in this product (which are converted by the enzymes in the human body into antioxidant-vitamin A). Synthesized from carotenoids, vitamin A promotes active regeneration of damaged skin and mucous membranes, stimulates collagen synthesis, helps stabilize blood glucose levels. Necessary for the full formation of bones and tooth enamel, as well as for the natural production of sex hormones, vitamin A, as well as the constituent oils of black cumin vitamin E and polyunsaturated fatty acids, plays an important role in strengthening the immune defense of the human body.

“Plant hormones” phytosterols, high quantity of which is in the oil of black cumin, are necessary for the human body for the natural production of hormones, provitamin D and bile acids. Providing immunostimulating, anti-inflammatory and bactericidal action, as well as contributing to the reduction of blood sugar and cholesterol in the blood, phytosterols are often used as constituents of various medications intended for prevention and treatment of cardiovascular, endocrine, diseases, prostate diseases.

Properties of black cumin oil:

- **Antibacterial** – ensures the successful treatment of many infectious diseases.
- **Immune-strengthening** – with regular use it activates the body’s defenses, strengthens natural defense and resistance to external negative factors.
- **Antioxidant** – slows down the aging process, promotes natural regeneration at the cellular level.
- **Soothing** – to relieve spasms, and also as a natural antidepressant.
- **Anesthetic** – helps relieve the pain impulse, so it is often used instead of mild local anesthesia.

The areas of its use for medicinal purposes are very extensive: it regulates the work of the genitourinary and endocrine systems, increases lactation in nursing women, improves the outflow of bile and the digestive system, and strengthens the walls of blood vessels.

The use of black cumin oil is not limited to even such a variety, it can be successfully used for healing wounds and abrasions, for detoxifying the body, improving metabolism. This unique spice helps literally in all areas of medicine. A good effect of cumin seeds reflects on the reproductive system of men and women, contributes to conception, helps to establish natural feeding.

#### THE BENEFITS OF BLACK CUMIN OIL

Eastern healers used black cumin oil for thousands of years. Not so long ago, its value was recognized also by modern scientists. In numerous studies, it has been found that this product has a unique chemical composition, through which it can have beneficial effects on the body and help in the treatment of a variety of diseases.

In the oil of black cumin it is present about a hundred active substances. These include organic acids (linolenic, myristic, stearic, etc.), polyunsaturated fatty acids, amino acids, phytosterols, essential

oils, saponins, thymohinone, nigelone, beta-systerol. This product is rich in microelements and vitamins – calcium, phosphorus, copper, selenium, zinc, iron, vitamins A, C, E, B and many other valuable components.

Due to its diverse and rich composition, cumin seed oil has the following effect:

- immunomodulating;
- anti-inflammatory;
- bactericidal;
- antiallergic;
- antipyretic;
- painkiller;
- expectorant;
- diuretic;
- soothing;
- choleretic;
- antispasmodic.

Oil of black cumin, the benefit of which is confirmed by the long history of use, is actively used today. It has the best effect on the functioning of the digestive tract. Its regular consumption will help to solve such an unpleasant problem as excessive formation of gases.

This product normalizes peristalsis and acidity in the stomach, eliminates diarrhea, reduces inflammation, destroys the pathogenic microflora and causative agents of intestinal diseases and even will help to get rid of worms.

Thanks to the choleretic action, it will help to eliminate stagnation of bile and cleanse the biliary tract. Cumin oil perfectly influences on the liver.

It helps to remove toxins from the body, restores its structure, removes inflammation. Oil can be used for diseases such as cholelithiasis, gastritis, hepatitis, dysbacteriosis, pancreatitis, helminthiasis, cholecystitis, stomach ulcers, liver cirrhosis, pancreatitis, enterocolitis, steatosis of the liver.

This oil is also useful for vessels and heart. This product lowers the permeability of capillaries, lowers cholesterol, makes the walls of blood vessels stronger, lowers blood pressure, prevents the formation of blood clots and sclerotic plaques. It shows good results in the treatment of hypertension, atherosclerosis, varicose veins, coronary heart disease, thrombosis, VSD, thrombophlebitis, cerebral circulation disorders.

Cumin oil is also a powerful antioxidant. It increases the viability of cells and increases their ability to regenerate, removes free radicals and prolongs the youth of the body. With regular consumption of oil, it will help to normalize the condition of the central nervous system, improve memory, make it easier to tolerate increased physical and mental stress. In addition, it activates metabolic processes and increases immunity.

Often the oil of black cumin is recommended to people suffering from diseases of the genitourinary system – urethritis, cystitis, pyelonephritis, nephritis. The positive effect of the product in this case has place due to its anti-inflammatory, bactericidal and diuretic properties.

For men, the oil of black cumin helps to improve the quality of sperm, increase potency and sexual activity. In addition, it will be a good prevention of the development of inflammatory processes in the male genital organs. Particular attention to oil should be paid to men suffering from infertility, prostate adenoma, prostatitis.



Cumin oil is also useful for women. Due to its consumption it is possible to normalize the hormonal balance, prevent inflammation and even the appearance of tumors in the genital area. For breastfeeding mothers it will help to improve lactation.

Oil of black cumin, the benefit of which is also in the ability to lower the temperature, exert an expectorant, antiviral and bactericidal action, can be used to treat colds, bronchitis, pneumonia, cough, sore throat, etc.

Actively, cumin seed oil is also used to solve problems with skin integuments. It can be called one of the best products for the treatment of acne and acne. Such oil removes inflammation, promotes the fastest healing of damages, destroys bacteria and fungi. It is recommended for eczema, psoriasis, herpes, burns, fungal lesions of the dermis, atopic dermatitis, warts, hives, etc. In addition, it will help in the treatment of hemorrhoids, rhinitis and ear diseases.

The black cumin seed oil is also demanded in cosmetology. It is often added to masks, anti-aging creams, hair care products, massage oils.

Cumin oil tones up, moisturizes and softens the skin. Reduces wrinkles, increases elasticity and tone of the dermis. It normalizes the functioning of the sebaceous glands, eliminates redness and increases the regenerative capacity of the skin.

In addition, this product works well against cellulite, eliminates dandruff, stops hair loss, restores structure, stimulates hair growth, and improves their condition.

## SEEDS AND SEED MIXTURES

### AMARANTH SEEDS

The value of amaranth is the wide use of all parts of the plant – from rootlets to seeds and their high nutritional value. Particularly useful are seeds – the amount of protein contained in them is much higher than in soy and wheat. This product is also appreciated for the content of amino acids, which greatly enhances its importance as a dietary supplement for vegetarians.

#### ***What else will make you to give preference to seeds of amaranth:***

- Squalene – improves the synthesis of vitamin D in the human body;
- Calcium, potassium, magnesium and iron will strengthen the heart and blood vessels, improve blood circulation;
- Dietary fibers serve as a kind of “broom” for cleansing from intestinal toxins, which in turn improves digestion;
- Oil and seeds of amaranth are used for the prevention of many diseases: eye, cancer, strengthen women’s health;
- Not missed the useful properties of plants and beauticians – masks using seed oil amaranth will help not only to put in order the skin of the face, but also to rejuvenate it, smoothing wrinkles and giving elasticity and healthy color.

### BENEFIT FOR HEALTH

Amaranth seeds serve as an excellent source of calcium, iron, magnesium, phosphorus and potassium. Also, this is the only grain that contains vitamin C. All this serves as an excuse to talk about the need to include in the diet seeds of amaranth.

Undoubtedly, the most important aspect making seeds of amaranth so popular food of ancient peoples is a high concentration of protein. This means that by consuming the plant, the body can not





only provide short-term needs for proteins, but also take care of creating protein reserves.

Regular consumption of proteins is the growth and development of cells, tissues, it is energy and proper metabolism. Approximately 13-18 percent of the chemical composition of amaranth is protein, which is significantly higher than the level of nutrient in other types of cereal crops. Even leaves of amaranth seeds contain proteins. In addition, the protein from this plant is called complete, since it contains a lysine-amino acid, which is absent in practically other vegetable proteins.

For the first time, the use of proteins from amaranth seeds was studied in Peru in the 1980s. During the study, children were given amaranth in the form of cereals and cereal. It turned out that this plant can be used as the main component of the children's diet. This allows to provide growing organisms with necessary proteins and other useful elements without large financial expenses.

Another study was held in Guatemala in 1993. The results of this experiment were similar to the results of the Peruvian one. Scientists again came to the conclusion that the amaranth protein is one of the most highly nutritious among all proteins of plant origin and is close in chemical composition to animal proteins.

And not so long ago, molecular biologists from Mexico began to investigate bioactive peptides in amaranth proteins. And in 2008, they found amaranth seeds in the lunazine peptide, which had previously been identified in soy. It is believed that lunazine is an anti-cancer substance, and also removes inflammation in chronic diseases (such as arthritis, gout and others), protects against diabetes, cardiac diseases, stroke.

Studies which were held over the past 14 years have proven the effectiveness of the grains of this plant in lowering cholesterol.

First in 1993, American scientists discovered that amaranth oil is very useful. Regular use of this product reduces the level of "bad" cholesterol.

In 2003, scientists from Ontario, Canada found that amaranth seeds served as an excellent source of phytosterols, which, when ingested into the human body, reduced the concentration of "bad" cholesterol. And in 2007, researchers found the benefits of amaranth for people with cardiovascular disease. It turned out that amaranth croup positively affects the condition of patients with coronary heart disease, hypertension. They have amaranth reduces the total level of cholesterol, regulates the concentration of triglycerides and "bad" cholesterol.

Gluten is the main protein in most cereals. It is responsible for the elasticity of the dough, the texture of baked goods and plays the role of a baking powder. But more and more people have appeared recently, to be not able to digest this protein as a result of autoimmune diseases. In this case, amaranth croup perfectly copes with the role of a substitute for gluten-containing cereals.

There are a number of advantages that make seeds of amaranth a component that has a beneficial effect on the health of the digestive system. High concentration of fiber improves the work of the gastrointestinal tract, it has a beneficial effect for the work of the intestines, promoting the effective absorption of nutrients by the walls of the colon.

With age, varicose veins affects more and more people. This disease not only worsens the appearance, but is a very dangerous violation of the vessels.

Amaranth products contain flavonoids, in particular rutin, which prevents varicose veins, strengthening the walls of the capillaries. In addition, the seeds of amaranth contain a sufficiently high concentration of ascorbic acid, and it is known to promote the production of collagen, a substance that restores and strengthens the walls of blood vessels.

Folic acid is especially important for the health of pregnant women. Deficiency of the substance

can cause the development of the fetus. If the amaranth seeds appear in the diet of the future mother, you can not worry about the lack of folic acid.

Amaranth seeds contain amino acid lysine, which can not be produced independently by the body, but which is very necessary for a person. This substance contributes to better absorption of calcium and prevents premature baldness. The juice from the leaves of the shin works from the hair loss and for protection. It is used as a conditioner after washing. In addition, the amaranth seeds contain a component that prevents early hair graying.

Amaranth seeds are an excellent source of many vitamins, including A, C, E, K and B group. They act on the body as antioxidants, increase tone, regulate hormonal balance. Among the minerals contained in the plant there are – calcium, magnesium, copper, zinc, potassium, phosphorus. Working in a complex, they support the health and strength of bones and muscles, and also responsible for the adequate flow of most vital processes in the body. According to recent studies, amaranth is also capable of increasing the functionality of the immune system.

Amaranth is superior to wheat and other cereals by many characteristics, because this plant contains the largest amount of fatty acids. Amaranth is popular due to the fact that its composition includes only natural and natural substances. It is used in all areas of human life – from food to expensive cosmetics.

Amaranth seeds are a real pantry of protein and vegetable fats. From the seeds can be made the flour, which can be used for cooking any bakery products. Amaranth seeds contain a large amount of squalene – a substance that saturates the body with air and is a powerful immunoprotector. The seeds of amaranth are valued because they do not contain gluten, which is very important for people who lead a healthy lifestyle. Amaranth is used for the treatment of various diseases, as well as in cosmetology and animal husbandry.

#### AMARANTH SEEDS` USE TO COMBAT DISEASES

Even during the development of early civilizations, were observed the medicinal properties of the plant, they were used to get rid of many ailments. Among the people, the amaranth is credited with the miraculous property of prolonging life, while maintaining the body at an operative level. In Chinese medicine it has long been used to treat patients with cancer.

In today's practice, the following properties are attributed to a plant:

- The use of amaranth seeds for food, especially in the cold season, helps to strengthen the immune system, which in turn increases the body's resistance to infections and viruses.
- The use of amaranth in combination with traditional therapy increases the effectiveness of combating malignant tumors, stops the growth of cancer cells. A regular use of seeds, allows you to reduce the risk of such ailments.
- Rapidly affects wounds and ulcers, difficult to heal, helps with burns.
- The plant is effectively, also for restoring the work of the gastrointestinal tract, in particular in the treatment of peptic ulcer and gastritis.
- Amaranth is also used in dentistry: stomatitis passes much faster after the use of this plant.

Amaranth oil and flour from seeds of amaranth have high healing properties. Their effectiveness is manifested in the fight against various skin diseases: eczema, psoriasis, dermatitis, acne, fungal infections. Oil acts as a moisturizing and protective agent for the skin of the face.

It is used as a remedy for liver diseases and, as a strengthening for the vessels and heart.

Men and women can also extract from the plant a separate benefit for themselves. Ground amaranth seeds are useful for women to restore the menstrual cycle, reduce pain during menstruation.

In the period of menopause it helps to maintain the hormonal background at the proper level.

For men, the amaranth will help support male strength, prevent prostate disease and adenoma.

### **Place of amaranth in treatment and prophylaxis of GIT diseases**

To prevent a disease is always easier than curing it. Prevention of diseases of the digestive tract is as follows:

- Balanced diet;
- Absence of bad habits;
- Regular periodic inspections.

As an preventive method, you can use amaranth. For this purpose, the seed of amaranth, amaranth oil, amaranth flour are suitable. Amaranth oil can be consumed both in its pure form and as a dressing for salads.

Adding amaranth in the usual dishes, you can not only add a “flavor” to its taste, but also warn yourself against the development of diseases of the gastrointestinal tract.

**Good results can be achieved by using amaranth oil in its pure form.** The oil is used on an empty stomach half an hour before meals in the amount of two tablespoons at a time. It has the following effect:

- Reduces the activity of bacteria that cause the disease (especially important for a stomach ulcer caused by a bacterium *Helikobakter Piloni*);
- Has a pronounced antibacterial and anti-inflammatory effect;
- Relieves spasms;
- Envelops the stomach, protecting the digestive system.

The effect of amaranth in the treatment of gastrointestinal diseases is directed directly at the regulation of digestive processes. Unlike antibiotics and other medications, amaranth acts on the body not so aggressively. Amaranth does not destroy harmful bacteria. It creates optimal conditions for intestinal health, improves the microflora, saturating the body with missing vitamins, micro- and macro elements.

Therapeutic properties of amaranth

**Most of all, medicinal uses are of oil from seeds of amaranth.** In practice, this oil has shown its effectiveness as an auxiliary substance in the treatment of inflammation of the oral cavity, such as stomatitis, periodontitis, tonsillitis.

**Also, amaranth oil is used for dermatitis and eczema and psoriasis.** This oil has anti-inflammatory properties and promotes wound healing.

The oil and seeds of amaranth has a beneficial effect on lipid metabolism in the body, which is very useful if you want to lose weight. In value, the amaranth oil is comparable to olive oil, also rich in unsaturated fatty acids and vitamins.

Porridge from the seeds of amaranth helps to restore strength after severe and prolonged illnesses.

With diseases of the mouth and throat, **amaranth oil is used as a rinse**, since it has anti-inflammatory and wound-healing properties.

Regular consumption of seeds of this plant and oil from them improves the work of the reproductive system in both men and women.

### **AMARANTH SEEDS FOR SLIMMING**

Considering that the consumption of proteins liberates the so-called satiety hormone, which reduces appetite, amaranth is a faithful assistant to everyone who wants to lose weight. On the one

hand, the fiber in the plant reduces appetite, on the other – a high concentration of protein also works to blunt the feeling of hunger. Together, this makes amaranth a unique plant for weight loss.

**Seeds of amaranth will be an excellent support during a diet for weight loss.** The protein contained in the plant, burns excess fats in the body, and promotes the strengthening and growth of muscle mass, preventing it from hanging. Losing weight also contributes to the hormone “saturation”, which is produced by the same protein – it suppresses excessive appetite.

The seeds of amaranth contain a small amount of salts and fats, its caloric value does not exceed 350 calories per 100 g. And the fiber, which is part of the seeds maintains a satiated state, and helps to exclude “harmful” snacks.

#### **How to properly use amaranth seeds and get the most benefit from it?**

One of the effective options is in the morning before breakfast. Dessert spoon of milled seeds pour a glass of water and drink. The result of this method is stabilization of the glucose level, and a feeling of satiety that will not allow you to overeat during breakfast.

A great benefit will be the use of amaranth before and after sports. Carbohydrates will add energy for productive exercise, and protein will restore muscles and reduce pain in them after physical exertion.

#### **WHY IS IT BETTER TO GO ON A DIET WITH AN AMARANTH**

Choosing a diet for weight loss with amaranth, you will not just lose weight, but in parallel improve the health and skin, and at the same time and rejuvenate the body. Therefore, amaranth in comparison with other dietary products has a lot of advantages.

Amaranth grain, and therefore the porridge itself is an invaluable source of squalene – a substance that is the main material of the skin. Since amaranth grain was forgotten for centuries, squalene was extracted only from the liver of deep-sea shark, and accordingly it was very expensive, as well as cosmetic products with its use. But in amaranth grain it is 7-8%, when you eat amaranth porridge or sprouted amaranth, squalene is actively absorbed by the body and renews the skin. And this means that amaranth is the most effective remedy for skin problems and diseases. Acne, acne, fat and dry skin, most serious skin diseases after a few weeks of consuming amaranth go away forever.

Most diets, despite the presence of fruits and salads in them are one-sided, and the body is deprived of the necessary substances for work. Naturally, it takes them from internal reserves, as a result of which weight loss begins. But such an approach is harmful to health, most nutritionists in recent years tend to believe that weight loss should not be due to depriving the body of vitamins or nutrients, but by accelerating the metabolism. This gives a permanent result and does not harm the body. Amaranth, a dietary dish, but at the same time it has all the substances necessary for the body substance. Most researchers compare the composition of amaranth with mother's milk, because it contains nutrients, a full complex of vitamins, a complex of minerals. But thanks to this composition, the amaranth not only saturates the body, but also stimulates the metabolism, and removes slag and heavy metals. In addition, amaranth is not deposited in fatty deposits, but completely absorbed by the body. As a result, on a diet with an amaranth you will feel great, and you will not have a breakdown, as it is often the case with hard diets.

Amaranth does not contain gluten, so it is suitable for anyone. In addition, the gluten-free diet has shown its effectiveness both in treating the same with losing weight. In medical centers, a gluten-free diet is often used, even if the patient does not have gluten intolerance. As practice has shown, the health of patients improves significantly more quickly. Therefore, the gluten-free diet has proven to be effective.



Weight loss is primarily due to the fact that you begin to consume fewer calories. But if you just start a diet, the temptation to eat a yummy stuff will be very great. Gluten-free diet, reduces appetite, as it is proved by nutritionists. Therefore, after a week of refusal from gluten, you can look calmly at such delicious but at the same time harmful to health and sweets figures, and begin to actively lose weight without harmful consequences for the body in a natural way.

The best results gluten-free diet provides in combination with exercise. So you burn more calories and at the same time greatly improve your figure. By giving up gluten and starting to exercise a little, you will achieve tremendous results and will be able to throw off 8-9 kilograms per month, and this will not be a temporary, but a permanent result.

#### SEEDS OF BLACK CUMIN

Seeds of black cumin – a magical gift of nature! They are not only a wonderful seasoning, but also an amazing remedy possessing the most diverse range of curative and preventive properties that were discovered in ancient times – in the time of Avicenna and Hippocrates. It was believed that the seeds of black cumin help to avoid many diseases and prolong youth. That's why people in Asia and the Middle East regularly eat them. It is known among the people, the seeds of black cumin are a natural antibiotic.

The cuisines of all countries can not do without this fragrant seasoning. Seeds of black cumin have a bitter taste, something like a mixture of nuts and black pepper. Black cumin gives a special flavor to sweet pastries, bread, desserts, salads, drinks, vegetable and meat dishes, soups, marinades, sauces and dressings. Ideally is to combine with potatoes, carrots, rice, beans, rye flour.

Healers of antiquity believed that the seeds of black cumin healed from almost all diseases.

Seeds of black cumin have the property that increases the motor and secretory functions of the stomach. They are also used as a cholagogue. Seeds of black cumin are used as an antispasmodic agent that acts on the smooth muscles of the digestive tract.

Seeds of black cumin are useful for breastfeeding mothers as a means of increasing lactation.

Seeds of black cumin have a carminative and laxative properties, because of that they are used for flatulence and constipation.

Seeds of black cumin relieve fatigue, increase immunity, help to remove stones from the kidneys and bladder, relieve pain with rheumatism and gout. They are useful for improving memory (for this 3 grams of seeds are taken daily an hour before meals with a teaspoon of honey).

To remove warts, acne, pigment spots and to stop balding, seeds of black cumin mixed with apple cider vinegar. This mixture is also effective for headaches.

Using seeds of black cumin with an empty stomach can improve the complexion and cleanse the skin.

When the abdomen is swollen, the child is given an enema made of cumin.

With the accumulation of gases and pain in the stomach, use a decoction prepared from the seeds of black cumin with the addition of sugar.

Flatbreads made from the grinded seeds of black cumin, mixed with rye flour and peppermint, relieve inflammation in mastitis, applying them to the chest. The course of such treatment continues for several days.

Seeds of black cumin successfully used for weight loss. They are useful for chewing when an empty stomach.

Seeds of black cumin have diuretic properties and normalize the metabolism, so they contribute to weight loss.

For internal reception, you can use a decoction of the seeds of black cumin: 2 teaspoons of cumin seeds are poured into 500 ml of water, cooked in a water bath for at least 10 minutes, then filter and drink 100 ml for 1 hour before meals 3 times a day.

Seeds of black cumin are used in various recipes of ancient schools of natural medicine. They are grinded and mixed with honey, heated and applied to painful places, used for acupuncture and acupuncture, just chewing, cures many diseases, brew like medicinal tea.

Seeds of black cumin do not irritate the mucous membranes of the stomach, while they have a disinfecting effect and improve digestion.

Seeds of black cumin are an easy tonic, gently relieve fatigue, have an antidepressant effect and increase immunity. They are very useful in the winter and spring seasons.

To improve memory, Arab doctors recommended eating 3 g of ground seeds of black cumin mixed with 100 g of honey.

To remove the stones from the bladder or kidneys give a drink broth from the seeds of black cumin with honey and hot water.

Seeds of black cumin normalize the level of sugar in the blood. Therefore, they are recommended for people with diabetes.

- Higher polyunsaturated essential fatty acids: OMEGA-3, OMEGA-6, OMEGA-9 (linoleic, linolenic, oleic, palmitoleic, arachidic)
- Saturated fatty acids: stearic, myristic, palmitic, arachine
- Amino acids
- Saponins and enzymes
- Flavonoids
- Micro- and macroelements: iron, magnesium, copper, manganese, selenium, zinc, potassium, calcium, phosphorus
- Vitamins: B1, B2, B3, B4, B6, C, E, PP, K, D, folic acid
- Beta-carotene
- Coumarins and tannins
- Vegetable protein
- Carvone
- Limonene
- Beta-sitosterol

#### Contraindications:

Despite the fact that black cumin is one of the most effective plants, there are contraindications. Seeds of black cumin are undesirable to take during pregnancy, because they contain plant hormones that stimulate labor. Contraindication is also individual intolerance and hypersensitivity.

Seeds of black cumin are a remedy for moths and mosquitoes! And the smoke from burning the seeds of black cumin keeps away even snakes.

#### The content of useful substances in black cumin and its composition

Cumin contains a lot of unusually useful substances for the human body. Among such useful substances are not only fats, and carbohydrates, but also a certain part of proteins, fiber, vitamins, micro- and macroelements. Actually, in particular such composition of cumin causes such an extensive use. In recent studies, scientists found in cumin such components as magnesium, zinc, a certain part of copper, selenium, as well as calcium, potassium, phosphorus, and iron.



In addition, this plant is rich in these and other components that are no less useful to humans. For example, cumin is rich in pyridoxine (or vitamin B6), riboflavin (or vitamin B2), and thiamine (or vitamin B1), choline and the most useful vitamin PP, a substance such as tocopherol, and folic acid (or vitamin B9). In addition, in black cumin high content of beta-carotene, phylloquinone, carvone, limonene. Well, of course, one can not help saying that the composition of cumin includes manganese, vitamins E, C, and K, as well as coumarin, and the tannins necessary for man.

One hundred grams of this seasoning contains about 66 grams of carbohydrates, about 10 grams of fat and 17 grams of protein, and about 10.5 grams of fiber and sugar. It is important to note that, in addition, the composition of seeds of black cumin has a small fraction of water.

At the same time, the calorie content of cumin is not so small and amounts to about 375 kcal per 100 grams of product. Nevertheless, there is absolutely no need to take into account the calorie content of this fragrant spice. You should agree, that in large quantities no one will use it, because to give a certain dish a strictly specific spicy flavor, a very small amount of cumin seeds will be enough.

On the benefits of black cumin seeds for the human body

Cumin is useful both for adults and for young children, even quite young. So, for example, our grandmothers knew for sure that the most effective most common remedy for colic occurring in infants was a simple infusion of cumin seeds. Moreover, this remedy was also considered as easily accessible as possible. You can also notice that the use of black cumin seeds in this case, a double benefit. After all, black cumin also significantly improves the production of breast milk in most nursing mothers.

A lot of useful properties of black cumin seeds are its unique ability to significantly strengthen the human immune system. Also, cumin seeds can improve the digestive system several times and help people suffering from insomnia. Such properties of cumin are inherent in it due to the content of a huge number of useful essential oils.

Black cumin also helps with respiratory diseases, and with such complications as pneumonia or bronchitis. Essential role played by black cumin in the treatment of tuberculosis, and primarily due to the fact that cumin actively promotes the fastest withdrawal of diluted sputum directly from our respiratory tract.

Black cumin – useful properties

Black cumin can sure be called a universal medicine, because it has many healing properties and is able to positively influence a variety of biological processes in the body. Black seed has the following effect:

- Strengthens immunity.
- Removes inflammation.
- It destroys many, viruses, fungi and bacteria, including Staphylococcus aureus and Helicobacter pylori.
- It stimulates the processes of regeneration, prolongs youth, breaks down the formation of free radicals and protects the body from their effects.
- Positively affects the thinking processes, charges with optimism, relieves stress.
- Anesthetizes and has an antispasmodic effect.
- It protects the liver and helps in its recovery.
- Exiles intestinal parasites.
- Stimulates the secretion of bile.
- Increases working capacity.



- Reduces gastric acidity and improves digestion.
- Effectively reduces pressure in the initial stages of hypertension.
- Slows down the growth of cancers and prevents their occurrence;
- Restores the hair;
- Promotes the moving out of phlegm;
- Nursing women increase milk production;
- Takes out the toxins.

Thanks to this wide range of actions, black seed can be used to prevent and cure many diseases. The seed will help with diseases of the liver, intestines, gallbladder and stomach. Means prepared on its basis, eliminate increased fermentation, bloating and diarrhea, promote the healing of ulcers, improve digestion and assimilation of food. Black cumin allows you to get rid of headaches and joint pain, facilitates the course of colds, removing most of the symptoms accompanying them.

Black cumin also has useful properties, allowing it to be used **to treat many skin diseases** – eczema, dermatitis, psoriasis, furuncles, ringworm, acne, leukoderma, warts, wounds, etc. It will also be effective for problems with the oral cavity, help cope with gum disease, periodontitis, toothache, stomatitis, etc. Beneficial effect of black seed and on the cardiovascular system – reduces the fragility of capillaries, normalizes the heart rhythm, stops vascular spasm, improves blood circulation, reduces blood pressure, prevents the formation of blood clots. In addition, it helps to reduce the concentration in the blood of sugar, the dissolution of stones in the kidneys, bile and urinary bladder.

Black cumin, the benefit and harm of which has been thoroughly studied by modern scientists, is now used in cosmetology and pharmaceuticals for the production of medicines and medicinal ointments. Particularly in demand is oil made from it. On the shelves of stores recently appeared a lot of products containing it in its composition, it and all kinds of shampoos, creams, including wrinkles, balms, etc. Such popularity is not surprising, since black cumin oil, although it acts on the body as well as seeds, but unlike them, has a greater concentration of nutrients, due to which it has a more pronounced effect.

#### CHIA SEEDS THE LAST MYSTERY OF THE GREATNESS OF THE AZTECS

Five thousand years ago in Ancient Mexico chia seeds were used as currency. The rulers of the Maya and the Aztecs accepted chia seeds from the defeated tribes as an offering.

Even the ancient Indians paid attention to increasing endurance when eating chia seeds. Indians of the Tarahumara tribe ("fast-footed"), who ate exactly the seeds of chia, pursued the animals while hunting, until they fell from fatigue.

Aztec warriors during the campaigns and battles ate chia seeds, which gave them strength and endurance. The main thing they took with them was a gun and a bag of chia seeds. Just one spoonful of chia seeds, eaten the day before, gave them the opportunity to perform 24 hour transitions. At the same time, their body was not dehydrated and was not depleted physically. And all this took place in a mountainous and hot climate.

Interesting and incredible facts about the chia seeds:

- OMEGA-3 – 8 times more than in salmon;
- Calcium – 6 times more than in milk;
- Iron – 3 times more than in spinach;
- Potassium – 2 times more than in bananas;
- Magnesium – 15 times more than in broccoli;





- Fiber – 2 times more than in bran;
- Protein – 6 times more, than in the beans;
- Selenium – 4 times more than in flax seeds;
- Phosphorus – 9 times more than in milk;
- Antioxidants – 3 times more than in blueberries;
- Seeds of chia contain about 40% of healing oil, about 20% of proteins and, at the same time, they absolutely lack cholesterol.

Chia seeds help to slim and help to lose weight. Getting into the stomach, the seeds of chia swell, absorbing a moisture of 12 times their weight. This gives a feeling of satiety, respectively, allows you to get rid of excess calories, while contributing to the normalization of the digestive system. Adding water to chia seeds in 15 minutes turns them into jelly. The same effect occurs in the stomach, which creates a physical barrier between carbohydrates and digestive enzymes, thus slowing the conversion of carbohydrates into sugar, which is beneficial for people with diabetes and for people who are watching their weight.

Fiber, from chia in combination with other microelements, is indispensable for the treatment of obesity and the fight against excess weight. With its help, cholesterol is excreted from the body, the intestines are cleared, fats are split. Fibers absorb bad cholesterol, thus preventing it from being deposited on the walls of blood vessels in the form of blood clots and cholesterol plaques, which helps prevent cardiovascular disease and stroke. A large amount of plant fiber allows you to quickly saturate and satisfy hunger for a longer period, which, in turn, allows you to eat less food and, accordingly, to get fewer calories.

The world-famous nutritionist and author of the Ducant Diet, Pierre Duccan, said that chia seeds help to reduce weight, maintain a normal level of cholesterol, give a feeling of satiety and are a valuable antioxidant.

Antioxidants, which chia seeds are rich in, prevent aging of the body – this is the secret of the attractiveness of women of Mexican tribes, surprising European travelers with their youth and beauty.

OMEGA-3, which chia seeds is very rich in, is of great positive value for the work of the heart, lowers the level of cholesterol in the blood and even helps to reduce pain in arthritis and osteoporosis.

Chia seeds help to lower blood pressure and stabilize blood sugar levels.

Studies by Canadian scientists have shown that after 3 months of daily consumption of chia seeds, the blood of the examinees became less viscous and less prone to clots. At the same time, the pressure of the participants in the research fell significantly.

Whether you are healthy, suffering from diabetes or just want to lose weight – try to use the chia seeds in your diet.

It is useful to add chia seeds to vegetable and fruit salads, sauces, puddings, cottage cheese, pasta, omelets, vegetable, meat and fish dishes, cereals, muesli, kefir, yoghurts, juices, smoothies, cocktails, cakes, tea, bread, pastries and confectionery products.

Chia seeds are good for cooking meat cutlets and rolls, as well as thickeners of sauces, soups, kissels and desserts, which is much more useful than starch and other thickeners.

Ground chia seeds are mixed with flour to increase the useful properties of baking, pancakes and fritters.

Due to the gelatinous consistency, chia seeds are successfully replaced in the dough the eggs, which will appeal to vegans and people who observe the Christian fast. Jelly, made from chia seeds with water, can be used in almost any dish as a substitute for eggs. To do this, mix 1 tbsp. chopped chia seeds



with 3 tbsp. of water and leave for 15 minutes. The resulting mixture is equivalent to one chicken egg.

Mexican mothers cook their children chia-porridge with milk, where they add chocolate, fruits, nuts and cream.

The daily norm for a healthy person is 2-4 tablespoons chia seeds.

With the regular use of chia seeds, it is possible to prevent the onset of development of dangerous cardiovascular diseases, diabetes, normalize cholesterol, minimize the likelihood of cellulite, and strengthen the body's immunity and defenses.

If you are a supporter of a healthy diet, chia seeds must be present in your diet.

Not so long ago, chia seeds were presented to Ukrainian consumers, who immediately noted their unsurpassed properties. They are an ideal source of energy for people, and with regular use, they will be charged with vivacity and cheer. Seeds of chia have a unique ability to dull even a strong sense of hunger, so they are simply irreplaceable for people who are constantly fighting with extra pounds.

There are five main reasons to start using chia seeds daily:

**1. For people with excess weight** (obesity of any degree) chia seeds will be an invaluable help in losing weight. Lost pounds will go away forever and after the termination of the diet will not return again. The use of seeds for weight loss is recommended by many nutritionists.

The action of chia seeds in this case is as follows:

- Seeds, getting into the stomach, mix with the liquid (with water or gastric juice).
- The seeds grow very much in size (12 times).
- As a result, a person experiences a feeling of satiety and ceases to eat high-calorie foods.

**2. Being excellent antioxidants, chia seeds maximally remove toxins from the body.** Regular use of chia seeds for preventive purposes (for cleansing the body) will allow the normal functioning of many internal organs and body systems. In the winter season, chia seeds act as a source of minerals and vitamins, helping people feel cheerful and look much younger than their years.

**3. Chia seeds are a unique natural remedy for the treatment of hypertension.** The use of chia seeds can not only reduce, but also normalize blood pressure. They are also actively used by people who have diseases of the endocrine system, in particular, diabetes mellitus. Due to the regular intake of chia seeds, diabetics significantly reduce blood sugar levels. It is also worth noting that a 3-month course of eating such seeds positively affects the composition of the blood, acting as a natural diluent. This was confirmed by Japanese scientists who conducted numerous studies of chia seeds.

**4. Chia seeds are a natural source of calcium,** which is necessary for people for normal operation of the musculoskeletal system and for increasing the strength of their bones. Comparing the seeds of chia with other products containing calcium, it is worth noting their clear leadership. Their outstanding properties are invaluable for the work of the brain, which must regularly receive the necessary amount of nutrients and nutrients. It is also worth noting that the seeds of chia contain a large amount of potassium, which is necessary for normal operation of the vascular system and heart.

**5. Chia seeds contain OMEGA-6 and OMEGA-3 acids, which are useful for the human body.** These acids should be present daily in the diet of each person, as they help the heart to work fully and reduce the level of harmful cholesterol, preventing it from settling on the walls of blood vessels. Chia seeds are recommended to be taken regularly by a patient with arthritis, as they help to significantly reduce the pain caused by this ailment.

Chia seeds are very popular not only in Ukraine, but also in other countries of the world.

Useful properties of chia seeds:

- chia seeds greatly contribute to increasing the endurance of people. That's why many



professional and novice athletes regularly use these seeds, which help them to withstand heavy physical exertion;

- chia seeds are a unique natural source of energy, thanks to which people can feel cheerful throughout the day and a rush of energy;
- chia seeds have pleasant taste qualities, due to which they can be used as a spice for culinary masterpieces from any cuisine of the world. Currently, there are a huge number of recipes for dishes, the preparation of which chia seeds are the must;
- chia seeds are actively used in aromatherapy (from them oil is squeezed out and used both for the treatment of various diseases and for preventive purposes);
- chia seeds are endowed with unique hydrophilic qualities, thanks to which water binding is carried out in the human body. At the same time, it is worth noting the ability of chia seeds to normalize the salt balance necessary for the full operation of organs and systems;
- chia seeds help the intestine to work properly, ensuring effective absorption of all necessary nutrients by its walls;
- chia seeds contain a large number of micro and macro elements: vitamins E, A, C; Zinc, riboflavin; Phosphorus, niacin, fiber, magnesium and thiamine.

Useful properties of chia seeds are determined by their unique composition and set of useful chemical elements:

- use of chia seeds helps to stabilize the work of the nervous system, while memory improves, since they include a large amount of phosphorus in composition;
- the activation of the muscular system, as well as the reproductive and immune systems, as the chia seeds include zinc in their composition;
- since these seeds contain a high content of calcium, they have a positive impact not only on work, but also the development of the musculoskeletal system, which plays an important role for children and professional athletes;
- chia seeds supply the necessary amount of calcium to the human body, which significantly softens the manifestation in the elderly of a disease such as osteoporosis, also These seeds are useful for women in the menopause;
- chia seeds are an excellent source of potassium, due to their use, it is easy to avoid such an unpleasant phenomenon as the appearance of muscle cramps as well as sudden pressure drops;
- chia seeds have a multivitamin composition, which has a positive effect on the functioning of the heart, and also normalizes the metabolic process;
- chia seeds contain a very rich set of valuable microelements that take a direct part in the synthesis of enzymes and hormones, and it also has a positive effect on the endocrine system;
- chia seeds can absorb a fairly large amount of liquid, the volume of which is 12 times the mass of the seeds. This unique feature of chia seeds plays an important role for that category of people who experience rather high physical activity. The fact is that due to the regular and correct intake of chia seeds, they help maintain the necessary level of hydration of all liquid media of the human body at the correct level;
- since the chia seeds do not contain cholesterol at all, the grains become a truly unique natural product, the beneficial properties of which have a positive effect on the state of the blood vessels (blood cholesterol levels decrease, neutral fats are neutralized);
- due to the fact that the vessels are protected from the appearance of cholesterol plaques,



blood pressure is normalized, and the likelihood of developing a variety of cardiovascular diseases is reduced;

- cardiologists in Italy are sure that due to the regular intake of products that are made from these seeds, the number of sudden deaths in heart diseases is several times reduced;
- chia seeds have a positive effect on the process of regeneration of injured tissues of the musculoskeletal system, therefore, they are recommended to be used during rehabilitation and recovery period for athletes who have suffered serious injuries;
- it is simply invaluable that these seeds are useful not only for control, but also for the prevention of a disease such as diabetes mellitus. In the event that chia seeds are used for food, which are pre-soaked in a small amount of water (200 ml of liquid is 1 tsp of seeds), which in turn leads to the formation of a gel-like substance, which is a unique physical barrier between enzymes of digestion and carbohydrates. As a result, this leads to the fact that the level of sugar in the blood for a certain time will remain quite low;
- chia seeds are also useful for people suffering from such an unpleasant disease as obesity, as they make it possible to avoid unwanted complications, such as strokes, heart attacks, hypertension, diabetes and other diseases;
- seeds of chia help in the fight against excess weight, so they can also be used for weight loss, as they contribute to a more accelerated process of metabolism, especially in relation to fat metabolism;
- people suffering from excess weight, can completely safely for their own health lose a few pounds only by eating products that include chia seeds;
- products based on chia seeds contribute to a decrease in appetite, since they have a very low glycemic index.

Given the regular use of chia seeds, you can achieve the following results:

- the activity of the digestive system is greatly improved;
- not only improves and maintains, but also normalizes the work of the cardiovascular system, which is due to the content of fatty acids in chia seeds;
- there is an opportunity to independently regulate body weight. However, it is mandatory not only to properly use chia seeds, but also to monitor their own nutrition, which must be full and balanced, and of course, consume the maximum amount of water;
- waist volume is rapidly declining, since chia seeds normalize blood sugar, which is one of the main reasons for the appearance of excess centimeters in the abdomen;
- bones and teeth become much stronger, since the composition of chia seeds includes a fairly large amount of phosphorus, magnesium and calcium;
- just 2 tablespoons of chia seeds are able to give you a sense of satiety for a long time, so you lose your appetite and do not want to eat. This is the main plus for people who want to lose their available excess weight.

Today, scientists are actively researching these seeds, as a result of which there is hope to find an effective cure for diabetes. All the beneficial properties of chia seeds are due to their unique composition, so it is simply impossible to argue with their value.

#### Composition of chia seeds

Chia seeds contain about 40% oil, about 20% protein and zero amount of cholesterol.

Chia seeds consist of a significant amount of fiber, vitamins and antioxidants, including a wide range of vitally important minerals such as calcium, iron, phosphorus, potassium, zinc ...



The most important property of chia seeds is a high content of essential fatty acid – alpha-linoleic acid (OMEGA-3) in them more than in fish or other cereals and seeds.

Another interesting property of chia seeds is the high content of dietary fiber. They contain about 38% carbohydrates; (30% insoluble fiber, 3% soluble fiber, amino acid). High fiber content and its ability to absorb liquid (10-12 times its own weight) promotes healthy digestive system.

This exotic product is really unique in its kind natural antibiotic.

**Chemical composition of chia seeds (per 100 g)**

- Water 4.9 g
- Ash – 4.87 g
- Proteins – 15.62 g

**Essential amino acids**

- Arginine – 1.98 g
- Valine – 1.05 g
- Histidine 0.53 g
- Isoleucine 0.7 g
- Leucine 1.26 g
- Lysine – 0.92 g
- Methionine – 0.09 g
- Methionine + Cysteine 0.45 g
- Threonine 0.67 g
- Tryptophan – 0, 72 g
- Phenylalanine – 1.03 g
- Phenylalanine + Tyrosine – 1.53 g

**Replaceable amino acids**

- Aspartic acid 1.63 g
- Alanine 0.93 g
- Glycine – 0.91 g
- Glutamic acid – 2.47 g
- Proline – 0.9 g
- Serine – 1.01 g
- Tyrosine – 0.5 g
- Cysteine – 0.36 g

**Fats – 30.75 grams**

**Saturated Fat – 3.18 g**

- Myristic – 0,03 g
- Pentadecanoic – 0.03 g
- Palmitic – 2,02 g
- Margarine – 0.06 g
- Stearic acid 0.9 g
- Arachine – 0.09 g
- Behenic – 0,03 g

**Monounsaturated fats – 2.12 g**

- Myristoleic acid – 0.03 g



- Palmitoleic – 0.03 g
- Oleic acid – 2.01 g
- Gadoleic – 0.05 g

**Polyunsaturated fats – 23.34 grams**

- Linoleic – 5.79 g
- Linolenic – 17.55 g

**Carbohydrates – 42.1 g**

- Vitamins
- Vitamin K (phylloquinone) 0.5 µg
- Vitamin C – 49 mg
- Vitamin PP – 8.83 mg
- Vitamin B2 (riboflavin) – 0.17 mg
- Vitamin B1 (thiamine) – 0.62 mg
- Vitamin A – 54 mg

**Macro and microelements:**

- Zinc (Zn) 4.58 mg
- Selenium (Se) – 55.2 µg
- Copper (Cu) – 0.924 µg
- Manganese (Mn) 2.723 mg
- Iron (Fe) – 7.72 mg
- Phosphorus (P) 860 mg
- Sodium (Na) – 16 mg
- Magnesium (Mg) 335 mg
- Calcium (Ca) 631 mg
- Potassium (K) – 407 mg

Chia seeds are a natural high-nutrition product that contains proteins, fats, dietary fiber, vitamins and minerals, as well as a significant amount of antioxidants. Especially chia seeds are rich in unsaturated fatty acids (OMEGA-3).

The composition of chia seeds is indeed impressive and that is why chia seeds can (and should!) become the best friend of all those who lose weight!

Unique strong hydrophilic properties, (ability to bind water and at the same time increase in size several times), low glycemic index and high content of fiber, help to quickly eat and long to be full, and in addition, “absorb” excess fats and sugar. In addition, soaked chia seeds are able to moisturize the food lump and facilitate the passage of all food through the gastrointestinal tract, help regulate the body’s balance of salt, as well as contribute to the most effective absorption of nutrients by the intestine.

Chia seeds allow you to increase energy and endurance, which is great for all who play sports. Due to the high protein content, they will also help your body to regenerate muscles after training.

Chia seeds are practically an ideal source of vegetable protein (about 20%) not only for athletes, but also for vegetarians and vegans, because they contain all essential amino acids and at the same time does not have gluten. For comparison, rice and barley contain 9% protein, wheat and corn 14%, oats and amaranth – 15%.

From vegetable products in terms of content and OMEGA-6, chia seeds only precede flax seeds.



Omega-3 fatty acids are essential for the metabolism of fat-soluble vitamins A, D, E and K, which catalyze cellular respiration and energy supply to cells, mucous membranes and nerves, are important for the heart and lower cholesterol levels, help to reduce pain even with arthritis.

Chia seeds help to lower blood pressure, stabilize blood sugar and cholesterol levels. According to a study of the state of diabetics in Toronto, Canada, after only 3 months of daily use of chia seeds, the blood of the examinees became less viscous and prone to blood clots, and the participants' blood pressure significantly decreased. A lowering of the level of cholesterol in the blood leads to a decrease in atherosclerotic plaques in the vessels, normalization of pressure (especially in hypertensive patients), a reduction in the risk of stroke and cardiovascular diseases.

Chia seeds are an excellent supplier of calcium, necessary for the normal development and functioning of the musculoskeletal system in children, athletes, to prevent and reduce osteoporosis, especially in women during menopause. Studies have shown that chia seeds contain 5 times more calcium than milk. Calcium is fully absorbed by the body due to the presence in seeds, which acts as a catalyst for absorption and assimilation of this important mineral.

Chia seeds are the source of other macro- and microelements: magnesium, phosphorus, zinc, potassium and iron, which are important components for the formation of many enzymes, hormones and the work of the endocrine system.

How to consume the chia correctly?

It is best in raw form, along with fruits and berries, adding to salads, soups, second courses or cocktails. You can take it in its pure form, stirring in a glass of water, or add 1 tablespoon of chia seeds to various cereals, yoghurt, muesli, juice, dough, oat flakes, salad, sandwiches, cheese, butter, fruit cocktails, soups.

It can be soaked before use in water or another liquid, for about 10 minutes (and can be overnight) in order to use their hydration properties. Chia seeds take a jelly-like structure.

**Pudding with chia seeds:** mix milk, a little honey or sweet juice and chia seeds. Or: mix a third of a cup of chia seeds with 1 cup (250 ml) of almond milk, 2-3 tablespoons (30-45 ml) of sugar and 0.5 tbsp. vanilla extract. Pour the mixture into a container and refrigerate overnight. Sprinkle with dried fruits or nuts before serving.

**Jelly:** add chia seeds to the wiped fruit. More chia seeds will create hard jelly, while less will create soft jelly.

**Jam:** mix about 1.5 cups (375 ml) of ground fruits and 0.5 cup (125 ml) of chia seeds to create a tight jam. If desired, add a sweetener.

Benefits of chia seeds

First of all, chia seeds act as effective natural antibiotics that do not damage the liver, unlike chemicals based on chemicals. In addition, they accelerate the processes of wound healing, strengthen the immune system, prevent colds and flu during the period of infectious diseases, and also fight infections that occur in the gastrointestinal tract.

**Thanks to the rich composition of the most diverse substances, the use of chia seeds for human health is quite weighty:**

- Chia seeds are an excellent source of fatty acids OMEGA-3 and OMEGA-6, which are perfectly protected by a dense shell. The seeds of chia are perfectly stored and almost do not give in to oxidation, which can not be said about other products containing OMEGA-3 in their composition. Thanks to these acids, as well as proteins, minerals, vitamins and fiber, chia seeds remove excess cholesterol from the body, which has a preventive effect on atherosclerosis and many diseases of the nervous and

cardiovascular systems.

- Daily intake of chia seeds normalizes blood sugar level, makes it less viscous, eliminating blood clots, and stabilizes favorable pressure.
- Another benefit of chia seeds for humans is the improvement of the digestive system due to the fiber that this product is rich in. It fights with constipation and many other violations of the functions of the digestive organs, removes toxic substances from the body, prevents the development of colon cancer, improves the reduction of the walls of tubular organs and maintains a favorable microflora in the intestine.
- Chia seeds are rich in calcium, potassium and proteins, which means that their regular use will give the body more strength, energy, brain activity and good mood. In addition, you will have strong bones, and thanks to phosphorus and magnesium – healthy teeth.
- Small grains of chia, interacting with gastric juice or water, absorb a weight that exceeds their own 12 times. Thanks to this, a person feels full, and this in turn improves the digestive system and reduces the daily intake of calories. This makes chia seeds an excellent way to lose weight.
- Chia seeds have an amino acid called tryptophan, which promotes a good, deep sleep, and a healthy sleep is known as a pledge of cheerfulness, fine mood, productive day and, eventually, success.
- With the help of protease inhibitors chia seeds destroy malignant cancer cells, and also repair damaged areas of DNA. This is confirmed by a survey conducted in 41 countries on different continents. As a result, the least affected by oncology was in those countries where chia seeds are regularly used for food.
- Chia seeds strengthen the body with hormonal disorders and increase hemoglobin in anemia.
- Chia seeds accelerate the restoration of damaged tissues of the musculoskeletal system. Therefore, they are recommended to be taken during the recovery period to athletes who are seriously injured.
- Healing properties of the seeds of the product did not pass by cosmetology, where they are added to various creams and masks to obtain a rejuvenating effect.

#### CHIA SEEDS IN COMBATING DISEASES

With its low caloric content, compared to other seeds, **chia seeds can be the optimal dietary product**, which, when properly used, can solve a variety of health problems:

**Ability to lower cholesterol.** The ability to block the absorption of cholesterol into the blood, imparts chia seeds with preventive properties against diseases of the cardiovascular system. The presence of a large amount of insoluble dietary fiber in the seeds prevents cholesterol from being absorbed from the intestine, regulating its content in the blood. This, in turn, positively affects the health of blood vessels.

**Improve digestion.** It is useful to use chia seeds for people with digestive tract problems. Chia seeds can absorb a huge amount of water, which is 12 times their own weight. If you pour chia seeds with water for half an hour, then a soft gel-like mass is formed, which can be used to adjust many digestive processes.

**Diabetes.** Chia seeds, swelling in the stomach, form mucus, which becomes a natural barrier between enzymes and carbohydrates that have been eaten. This leads to the fact that carbohydrates are more slowly broken down to glucose, which in turn prevents a sharp increase in its level in the blood.

**Constipation.** People who suffer from this disease can safely use chia seeds to get rid of stagnant slag. Insoluble dietary fibers in the seeds of chia contribute to the softening of stool. Increasing in





volume, due to hydrophilicity of cellulose, fecal masses stimulate intestinal peristalsis, which leads to its effective work.

**Important!** If you ignore the fact that chia seeds help with constipation only with sufficient water intake, eating chia seeds can lead to the opposite effect. Not having received enough moisture, the seeds will begin to absorb it from the intestine itself, which will only exacerbate the problem. It is recommended to eat **chia seeds only in a soaked form**. It is thanks to the presence of water, they swell, forming a gel of a gentle consistency, which, enveloping the mucous membrane of the stomach and intestines, is able to relieve the pain symptoms caused by the presence of an ulcer.

Nine main advantages of chia seeds

Studies have shown that regular intake of chia seeds, rich in many key nutrients, can significantly improve your health. Here are some of the best qualities of chia seeds:

### **1. Anti-aging effect for the skin**

Recently, researchers from Mexico found that the antioxidant concentration of chia seeds is almost twice as high as previously thought. Thanks to the activity of these antioxidants, the ability to stop free radicals reaches 70%. In fact, this proves that chia seeds are one of the richest sources of natural antioxidants. Antioxidants accelerate the process of skin regeneration and prevent further damage to the skin. Eating chia seeds can prevent premature skin aging due to inflammation caused by damage from free radicals.

### **2. Health of the digestive system**

Chia is the richest source of cellulose. Dietary fiber plays an important role in maintaining the insulin balance in the body. Chia seeds, as well as flax seeds, can act as a natural balancer of blood sugar level due to the high content of cellulose and polyunsaturated fats. Fiber in chia seeds ensures regular bowel function and a healthy stool. Dietary fibers in chia seeds help to quickly achieve a sense of satiety when eating, as the fiber absorbs a large amount of water and swells swiftly. This explains the fact that, according to the results of clinical studies, the ingestion of chia seeds in seeds nourishes hunger and suppresses appetite. And it helps in the fight against overweight.

In addition, getting into the stomach, chia seeds form a gel-like substance. This process of gelling in the stomach occurs due to soluble fibers. In this case, chia seeds work as a prebiotic, which stimulates the growth of probiotics in the intestine.

### **3. Heart support in a healthy state**

The ability of chia seeds to relieve inflammation, regulate cholesterol and lower blood pressure makes them extremely useful for heart health. In addition, chia seeds, regularly fed with food, reversing oxidative processes, can slow the development of atherosclerosis.

Studies on animals and humans have shown the probable efficacy of chia seeds for allergies, angina, for improving athletic performance, in fighting cancer, coronary heart disease, in infarction, hormonal and endocrine disorders, hyperlipidemia, hypertension, stroke, vasodilation. Some data also indicate possible anticoagulant, antioxidant and antiviral effects.

Chia seeds also have a high content of linoleic and other fatty acids that help the body absorb fat-soluble vitamins A, D, E and K. Despite its tiny size, chia seeds are much richer in OMEGA-3 than salmon. Omega-3 protects the heart, reducing blood pressure and bad cholesterol.

### **4. Treatment of diabetes**

Because chia seeds are rich in alpha-linolenic acid and fibers, scientists from the University of Litoral in Argentina conducted a study to determine how much chia seeds can help prevent metabolic disorders such as dyslipidemia (excessive fat in the blood) and insulin resistance – the two main factors

In the development of diabetes. The study was published in the British journal Nutrition.

Researchers also found that adding chia seeds to the diet reduces the amount of internal fat tissue, eliminates the “beer belly”, having a beneficial effect on the metabolic processes in the body.

### **5. Accelerating Metabolism and Increasing Energy**

A recent study published in the American Journal of Strength and Conditioning suggests that consumption of chia seeds increases the effectiveness of an hour and a half exercise without the use of sugar.

Adding chia to the daily ration contributes to a huge increase in vital energy, and also helps to burn fat in the abdomen and reduces the amount of internal fat tissue that affects metabolism.

### **6. Strengthening the bones**

A total of 100 g of chia seeds contains 63% of the recommended daily calcium intake.

Calcium is the foundation of bone health and helps maintain bone mass and bone strength. Chia seeds also contain boron, which is another important nutrient necessary for the normal functioning of bones.

Boron helps to assimilate calcium, magnesium, manganese and phosphorus – the elements necessary for healthy growth of bones and muscle tissue.

### **7. Muscle building and weight loss (weight loss)**

Chia seeds occupy a worthy place among the main sources of vegetable protein. This is another reason why these super-seeds are good for those who want to pump muscle, burn excess fat and balance blood sugar levels.

Chia seeds possess powerful antioxidant properties, which helps in restoring the strength after physical training. They are rich in basic minerals such as calcium, phosphorus, magnesium, manganese, copper, zinc, iron and nicotinic acid.

One of the features that makes chia seeds unique is the ability to absorb moisture 12 times its own weight. Thanks to this, chia seeds can significantly prolong hydration and improve nutrient uptake of electrolytes. It also slows the digestion of food, which in turn increases the satiety time and reduces the craving for sugar.

Since the seeds of chia have a lot of zinc, they increase the production of leptin by the body. Leptin is the key hormone regulating appetite, body energy consumption and energy level in general. It also affects the endurance of the body, which makes chia seeds an excellent source of food for those who watch the figure.

### **8. Suppression of breast and cervical cancer**

Chia seeds are rich in alpha-linolenic acid (**OMEGA-3**). In 2013, the **Journal of Molecular Biochemistry** published an article stating that **OMEGA-3** suppresses the growth of cancer cells, both in the chest and in the cervix. Some cancer cells are not only suppressed, but also die, without harming healthy cells. Studies on other forms of cancer have yet to be carried out, but right now this is great news for those women who are struggling with these increasingly prevalent types of cancer.

### **9. Teeth Health**

Because of the abundant reserves of calcium, phosphorus, vitamin A and zinc in chia seeds, it is not surprising that they are one of the main means for dental health. Calcium is the building block of teeth, so it is so necessary for their health.

Zinc prevents the formation of tartar, as well as has an antibacterial effect that suppresses microbes that cause bad breath. Vitamin A and phosphorus are also important for strong teeth and healthy oral cavity.

## USE OF CHIA SEEDS FOR SLIMMING

**In addition to their high nutritional qualities, chia seeds possess a huge number of useful properties and perform many functions:**

- Suppress appetite;
- Increase energy;
- Relieve the body of excess slags and toxins.

This helps to lose weight, without hunger and with good health. From the statement of the Mexicans, a tablespoon of chia seeds can support the body 24 hours a day.

### **Chia seeds perform their functions in three ways:**

- Getting with food in the stomach, they envelop its walls, after there is a feeling of satiety with a slight intake of food.
- They are slowly digested, thereby permanently leaving the body satisfied.
- They contain nutrients as much as the body needs to maintain a life process with minimal calories.

Diet for weight loss – chia seeds with juices:

**Birch sap (birch bark)** is today one of the favorite beverages of village residents. It is extracted from the birch in spring, from the first thaws to the opening of the leaves. Birch sap is one of the best means for enhancing metabolism. It should be consumed 1 glass per day with some chia seeds added for 25-30 days.

**Contraindications:** allergy to birch pollen.

**Cabbage juice** has a cleansing effect on the body, inhibits the conversion of carbohydrates into fats and normalizes metabolism. You need to consume it for the first time on an empty stomach, 30 minutes before meals, and several times during the day in between meals. During the day should drink 2-3 glasses. Cabbage juice can be mixed with lemon, carrot, beet juice, add honey at the rate of 1 teaspoon per glass. In the cabbage juice you need to put some chia.

**Contraindications:** inflammation of the kidneys or intestines, pancreas diseases.

**Cucumber juice** stimulates metabolism. Interestingly, the juice of bitter cucumbers is considered the most healing. A good addition to it will serve carrot or beet juice. You can add there some chia seeds. It is enough to take 100 ml of this juice at a time, and a day – 0.5 liters. Do not season with salt, add a small amount of chopped garlic, dill, parsley, celery, cilantro, basil or other greens.

**Contraindications** are with gastritis, gastric ulcer and duodenal ulcer.

**Tomato juice** prepares the stomach and intestines to digest food and at the same time, being low-calorie, causes a feeling of saturation, especially with the swollen chia seeds. Drink 100-150 ml of it 20-30 minutes before eating. Season with a small amount of chopped garlic, dill, parsley, celery, cilantro, basil or other greens.

**Contraindications:** any poisoning, peptic ulcer, gastritis, cholecystitis, pancreatitis and enterocolitis.

**Pumpkin juice** has a cleansing effect and has a beneficial effect on the digestive system, promotes bile secretion, improves the functioning of the gastrointestinal tract. It is very useful for people with diabetes and obesity. Mixing with juices of apples, carrots and other fruits and vegetables suitable to taste, as well as chia is allowed. Drink not from time to time, but by a course of 15-20 days.

### **How to take chia seeds for weight loss**

**A distinctive feature** of these grains is high hydrophilicity. They are able to absorb water in an amount exceeding 12 times of their volume. Even a small amount of seeds, swelling in the stomach,

maintains a sense of satiety for a long time.

**Nutritionists recommend this product for weight loss:**

- Grains on contact with water form a gel;
- Gel serves as a barrier between food and enzymes of the stomach;
- The process of digestibility of food slows down, which helps to reduce portions of food.

Over time, the desire for constant snacking becomes less pronounced, the metabolic processes in the body are normalized. Weight reduction occurs gently. The body is not stressed.

Recipes for weight loss

**Chia-cocktail.**

2 tablespoons chia seeds pour with a glass of any unsweetened juice for 15 minutes. A jelly-like dessert is eaten in the morning instead of breakfast. You can replace dinner with it. You can cook it in advance, only to store the dish you need in the cold up to 12 hours.

**Smoothies with chia seeds.**

Grind in a blender 100 g of fruit, 1/4 cup oat flakes and 2 teaspoons chia seeds. Add 1 cup of milk and 1/4 cup low-fat yogurt and orange juice. Mix everything, you can add mint, cinnamon and honey. Transfer the mixture to the refrigerator for 4 hours. The portion is divided into 2 meals (breakfast and dinner).

If the chia seeds are regularly eaten, certain changes begin to occur in the body of the person who losing weight:

- there is a significant decrease in appetite, a feeling of hunger passes;
- significantly reduced blood sugar;
- excellent health course for the cardiovascular and nervous systems is conducted;
- the immune system of the body is effectively strengthened;
- accumulated slags and toxins are removed from the human body;
- all metabolic processes that occur in the body are significantly strengthened;
- more accelerated process of burning the existing fat deposits is started, which results in safe weight loss without harm to health.

With the addition of chia seeds to the daily diet, it will be possible without fatiguing and dangerous diets, completely safe for one's own health, to lose up to five kilograms of excess weight in just one month. To date, laboratory studies have been held, thanks to which it was possible to establish that, on average, one month leaves about 5% of the initial weight. Thanks to the consumption of these seeds, it will be possible to achieve not only an excellent weight loss effect, but also an effective health course for the whole organism. At the same time, all the aging processes are significantly slowed down, there are forces and a charge of energy, there is a wonderful rejuvenating effect.

It is not at all surprising that it is the chia seeds that act as an excellent helper in the fight against excess weight, because they contribute to a more accelerated process of fat burning. In the homeland of chia, these seeds are roasted and used to produce flour, which is added to a variety of dietary dishes. Such food is not only a guarantee of stable weight, but also ensures the preservation of vital energy.

The composition of chia seeds includes unique soluble fibers, which are soluble in the liquid and can increase several times and form a gel. It is this gel that will ensure the appearance of a characteristic barrier of mucus on the walls of the stomach. As a result, the process of absorption of carbohydrates is significantly slowed down. Consequently, the less carbohydrates enter the human body, the more calories will be consumed.





Seeds of chia help to get rid of such dangerous to human health fat, like visceral fat.

It is the seeds of chia that can effectively neutralize the emerging even the strongest sense of hunger, because they include a fairly large amount of fiber.

As soon as the fiber comes into contact with the liquid, it starts swelling immediately, as a result of which the part of the stomach is filled, consequently, the appetite also decreases, the sense of hunger disappears.

Chia seeds are simply ideal for those people who are not able to endure even a slight feeling of hunger and they can be used as a safe and healthy snack.

To date, there are no strict instructions for eating seed chia for weight loss. Most often they are taken in pure one or two tablespoons a day (this is the amount recommended by dieticians) and washed down with plain water. If desired, a small number of seeds can be added to almost any dish, most importantly, that they are present in the daily diet.

Among the merits of chia seeds can be named the fact that they have a neutral taste, but at the same time, with very sensitive taste reflexes, you can notice a slight nutty taste.

It is obligatory, that Chia seeds must be washed down with plain water, so that an unpleasant feeling of discomfort in the stomach can be avoided. In addition, it is after contact with the liquid that the process of swelling of the fibers begins, and they acquire a jelly-like consistency, so that the feeling of hunger passes.

Chia seeds are widely used by vegetarians, because only one tablespoon of chia seeds can replace one egg. Therefore, they are often added to cooked meals.

If you are used to have breakfast with muesli in the mornings, you can add only one teaspoon or a small pinch of chia seeds to the muesli and fill it with milk, or add chia seeds to any porridge, salad and get the right amount of valuable substances and minerals necessary for the human body.

If desired, you can prepare a useful and tasty energy cocktail. In this case, you need to take 2 tablespoons of lime juice, 2 cups of water, 4 tablespoons of honey, 2 tablespoons of chia seeds, mix everything and divide into two portions.

Despite the fact that the chia seeds have a positive effect on the human body, they also have certain contraindications, which should be read before they are used.

- Side effects can occur if there is an individual intolerance to one of the constituent seeds of chia, and also if too long and improperly used.
- As a result of the use of chia seeds, one can face such an unpleasant phenomenon as increased gassing in the intestine, which is due to the high content of dietary fiber. Of course, this action is not apparent to everyone.
- Some people, as a result of taking these seeds, may suffer from quite severe allergic reactions. One of the signs of such reactions can be severe diarrhea, characteristic rashes on the skin, difficulty with breathing.
- It is strictly forbidden to combine the use of chia seeds with the intake of aspirin, and of course, anticoagulants.
- It is not recommended to take chia seeds to people suffering from low blood pressure.

Chia seeds are contraindicated for individuals with the following diseases: serious gastrointestinal disturbances; oncological diseases; increased level of triglycerides.

The use of chia seeds in pregnancy and lactation is not recommended for the reason that these grains have not yet fully studied their effects on fetal development.

#### USE OF CHIA SEEDS IN COSMETOLOGY

Modern cosmetology has also found an active use to chia seeds, as everyone knows their unique abilities: to prevent aging and prolong youth. This is provided by various acids (caffeine and chlorogenic) and antioxidants present in the seeds: flavonol, quercetin, kaempferol, myricetin.

#### RECIPES OF MASKS WITH CHIA SEEDS

##### **Moisturizing face mask**

You need 250 ml of yogurt and 2 egg whites. After mixing the components into a mass, add 15 ml of chia seed oil. The mask should be applied to the prepared skin, it should be left for 10 minutes, then gently washed off with cool water. The skin after the procedure becomes smooth and radiant.

##### **Scrub for a gentle, irritable skin.**

This gentle remedy carefully cleans the epidermis. To make it, you need 2 tablespoons. chia seeds, 125 ml of coconut oil and 1 tbsp lemon juice. It is most convenient to distribute the scrub on massage lines, after moistening the skin with warm water. After applying the mass, leave it for a couple of minutes to form a gel. Remove it better than a washcloth or cotton swab soaked in water, the face should be rinsed with water.

##### **Mask for the skin of the eyelids**

Seeds of chia provide nutrition and care for the skin around the eyes. The mask is made from seed oil in its pure form. This curative organic product is applied before bed, neatly distributing the oil around the eyes. This mask eliminates small wrinkles, removes puffiness.

##### **Lifting mask for face skin**

The mask of chia seeds has a gel-like consistency. To make it, you first need to soak the seeds – 2 tablespoons. seeds for 3 tablespoons water. The mixture should stand 10-15 minutes before swelling. Add 1 teaspoon to the mass of honey. After thorough mixing, the gel is applied to the face with hands or a brush and allowed to stand for 10 minutes, after which it is washed off with water. Distribute the mask from the chin to the forehead.

##### **Moisturizing hair with gel**

A gel made from chia seeds and lemon juice can fill your hair with moisture and protect your hair from dry air. Add 1/3 cup (80 ml) of chia seeds to the closable container and pour in 2 cups (500 ml) of water. Whisk everything well and leave for 5-10 minutes. Once again, beat the mixture and put in the refrigerator for 15 minutes or until it turns into a gel. Add to the gel and mix 3 tablespoons (45 ml) of lemon juice. Apply the gel on your hair and leave for 10 minutes, rinse.

##### **Mask of chia seeds for face cleaning**

Chia has many benefits for the whole body, as well as for treating facial skin from acne and irritations. This seed contains an essential oil that softens the irritation of the face, and also has a tightening effect for the skin. Inflammation of the skin decreases due to the highest concentration of OMEGA-3 fatty acids.

Ingredients: 2 tablespoons of chia seeds soak with a small amount of water (2 or 3 tablespoons water) for 10-15 minutes. Add 1 teaspoon of chia seed oil or 1 teaspoon of honey. Mix all.

Application: Degrease face and apply mask. It has a gel-like consistency. It can be applied with a brush or hands. The mask is superimposed from the chin.

**Exfoliator from chia seeds for skin** (a remedy for the removal of dead cells and badly exfoliating skin particles):

Mix 1/2 cup (125 ml) of coconut or other cosmetic oil, one tablespoon (15 ml) of lemon juice and 2 tablespoons (30 ml) of chia seeds. Gently moisten your face with warm water. Apply exfoliating scrub to the skin. Leave it for 2 minutes, during this time the scrub is converted to gel. Remove the scrub using a

sponge, rinse your face with cool water. You can apply not more than 2 times a week.

### **Nourishing mask for skin**

Mix 2 egg whites, 1 cup (250 ml) of regular yogurt and 1 tablespoon (15 ml) of chia seed oil. Apply this mixture to your skin and leave for 10 minutes before rinsing it off with cool water. Egg whites make your skin supple, and yogurt makes it smooth. Chia seed oil moisturizes your skin.

Contraindications to the use of chia seeds for cosmetic purposes may be allergic reactions to the plant. The main thing to remember is that ecologically pure chia seeds are a real well of health. With skillful use, chia seeds will bring you longevity and beauty.

### **QUINOA SEEDS LEGENDARY GOLDEN GRAIN OF THE INCAS**

The homeland of the unique useful plant of the quinoa – highlands of the Andes. Since ancient times, Indians use its seeds as the main source of food, saturating your body with the healing powers of this cereal. The ancient Incas gave it the name “golden grain” and since then the quinoa have been called “the golden grain of the Incas” or “the croup of Andean Indians”.

The UN General Assembly proclaimed 2013 the International Year of Quinoa – in recognition of the fact that the indigenous peoples of the Andes, thanks to traditional knowledge and life skills in harmony with nature, have preserved the quinoa for present and future generations. UN Secretary-General Ban Ki-moon said that this agricultural crop can make a huge contribution to ensuring food security in the world.

In cooking, quinoa seeds are used to make soups, cereals, all kinds of salads, side dishes, sauces, snacks, casseroles, puddings, desserts, add to bread and homemade cakes. Quinoa goes well with meat, fish and vegetables.

From quinoa seeds can be made excellent friable porridge. Prepare it simply: this groats do not require soaking and after boiling, cook for no more than 15 minutes. Then open the lid and wait 2-3 minutes for the remaining water to evaporate. Cooked grain is useful for eating as breakfast, adding dried fruits, nuts or honey.

Quinoa is good in combination with other cereals, for example with buckwheat.

Since the quinoa is not cereal, it can be eaten at any time of the day.

Porridge made of quinoa is an easy, nutritious, tasty and healthy dish. It is ideal for those who are looking for products that are easily digested.

Quinoa can be a base of a magnificent pilaf with mushrooms, it can be stuffed into tomatoes or be sprinkled with roasted grains onto homemade cakes. In this case, the baking acquires an original memorable taste and is enriched with valuable nutrients and fibers. From the quinoa you can cook sweet and unsweetened dishes, add it to cold and hot snacks, use instead of meat in a vegetarian diet. Quinoa is a worthy alternative to oatmeal. It can replace oatmeal in almost all dishes.

A bright, memorable taste of porridge from the quinoa will be enjoyed by whole family and after the first tasting you will often use this groats.

Currently, quinoa seeds are often present in the vegetarian menu. They are boiled and served as a side dish or added to soups. To properly prepare the quinoa seeds, you must adhere to three rules: to wash them well (otherwise the porridge will get a taste of bitterness), not to overboil (otherwise the dish will become bitter) and stir thoroughly (to avoid sticking).

The taste of the quinoa is similar to the taste of unpeeled rice. From flour, obtained from seeds quinoa, is baked bread and produced pasta. And if you mix it with sugar and dilute with water, you will get a well thirst quencher.

According to the specialists of the cinema, it is included in the 20 most useful food products in the world. This croup is almost completely absorbed by the human body and enriches it with many useful substances. This product should pay attention to people who lead a healthy lifestyle and those who adhere to a vegetarian diet.

Quinoa is an excellent source of vegetable protein, containing 18 amino acids necessary for the person (including Omega-3). The quantity of protein in the quinoa is more than in rice, wheat, corn, millet and other cereals. Vegetable protein reduces appetite and improves metabolism.

The quinoa also contains fats, carbohydrates, fiber, vitamins (A, E, C, B1, B2, B3, B5, B6, B9), beta-carotene, lutein, macro- and trace elements (potassium, calcium, phosphorus, iron, zinc, Magnesium, manganese, selenium, copper, sodium).

The quinoa contains much more alpha-tocopherol, folic acid, riboflavin and fiber than in rice, wheat and barley.

The presence in a movie tryptophan allows the body to produce a “hormone of joy” – serotonin, and phytic acid, contained in kinoa, reduces the level of cholesterol in the blood and is the prevention of cancer.

The seeds have a low glycemic index (35) and low calorie content, but a very high percentage of protein content. According to the protein content, this croup can be compared with milk, and the blood sugar level, thanks to a low glycemic index, remains balanced. The desire to eat something sweet does not arise – and it is also useful for losing weight!

If during the day you eat 2-3 servings of porridge quinoa, then you will get fewer calories, compared with one portion of rice or pasta.

Useful properties of quinoa:

- Has a powerful restorative effect;
- Has a beneficial effect on the cardiovascular system, helps reduce bad cholesterol in the blood, protects against anemia, is useful to hypertensive patients;
- Due to its ability to reduce blood sugar levels, quinoa is recommended for people with diabetes mellitus;
- Helps with migraines, helps reduce blood pressure;
- Has a calming effect on the nervous system;
- Favors the removal of toxins and toxins from the body;
- Useful to children and people of advanced age, contributing to the strengthening of bone tissue and helping with many diseases of the bone system;
- The essential amino acid lysine, which is part of the quinoa, helps to heal wounds;
- It is recommended to people who have suffered serious illnesses or accidents, as well as those who are engaged in heavy physical labor, quickly restoring strength, saturating and strengthening the body;
- It is recommended to include quinoa in the diet of pregnant women, people with overweight, athletes and those who experience regular physical activity and stress;
- It is useful for the prevention of colon cancer.

Fiber, which is in plenty in grain quinoa, is combined with other trace elements, is indispensable for the treatment of obesity and the fight against obesity. With its help, cholesterol is excreted from the body, the intestines are cleared, and fats are split. Fibers found in fiber absorb low cholesterol, thus preventing it from being deposited on the walls of blood vessels in the form of blood clots and



cholesterol plaques, which helps prevent cardiovascular disease and stroke. A large amount of plant fiber allows you to quickly saturate and satisfy hunger for a longer period, which, in turn, allows you to eat less food and, accordingly, to get fewer calories.

#### SEEDS OF QUINOA COMPOSITION AND USEFUL PROPERTIES

**Quinoa seeds – a real storehouse of protein.** Its amount in the seeds of quinoa is on average 16%, and some varieties contain up to 20%, while in rice, only 7.5%, and in wheat and corn, even less – 3.5%.

**The amino acid composition of proteins is extremely balanced and similar to the proteins of milk.** The protein is contained in a solid state, due to which it is easily digested and thus useful for pregnant women, sportsmen and children. In addition to the unique protein composition, the crop has a full set of necessary substances – carbohydrates, fats (saturated with lecithinic acid), minerals, fiber, B vitamins, phosphorus, iron, zinc, potassium and calcium. The amino acid lysine, contained in the grains, promotes the healing of tissues and the formation of strong bones in children. All these components are needed to maintain beauty and health for the body.

#### Useful properties of quinoa seed

In quinoa seeds, there are much more alpha-tocopherol, folic acid, cellulose, riboflavin and complex carbons than in rice, wheat and barley. Its easy digestibility and unique protein composition allow you to compare the rump with breast milk. Saturation with lysine helps to avoid such troubles as anemia, hair loss, irritability, poor appetite and stunted growth.

**The benefits of quinoa seeds are manifested for those suffering from diabetes, hypertension and heart disease.** The presence in them of a substance such as tryptophan, allows the body to produce a hormone of joy – serotonin. A phytic acid reduces the level of cholesterol in the blood and is the prevention of cancer.

Groats of quinoa does not contain gluten, that is why it is often prescribed to allergic people.

At present, this grain culture is often present in the vegetarian menu. It is boiled and served as a side dish or added to soups. To properly prepare quinoa, you must adhere to three rules: wash it well (otherwise the porridge will get a bitter taste), do not overboil (otherwise the quinoa will become liquidy) and carefully stir the cooked product (to avoid sticking).

The taste of cereal grains is similar to non-peeled rice. From the flour obtained from this plant, is baked bread and produced pasta. And if you mix it with sugar and dilute with water, you will get a well thirst quencher.

According to USDA Nutrient Database 100 g of quinoa seeds contain:

- Water 13.28 grams
- Proteins – 14.12 grams
- Fats – 6.07 grams
- Carbohydrates – 57.16 g
- Dietary fiber (fiber) – 7 g
- Ash – 2.38 grams

Vitamins:

- Vitamin A (beta-carotene) – 1 µg
- Vitamin B1 (thiamine) 0.36 mg
- Vitamin B2 (riboflavin) – 0.318 mg
- Niacin (vitamin B3 or vitamin PP) – 1.52 mg
- Vitamin B5 (pantothenic acid) – 0.772 mg



- Vitamin B6 (pyridoxine) – 0.487 mg
- Folic acid (vitamin B9) – 184 µg
- Vitamin C (ascorbic acid) – 6.8 mg
- Vitamin E (tocopherol) – 2.44 mg
- Choline (vitamin B4) – 70.2 mg

Microelements:

- Potassium – 563 mg
- Calcium 47 mg
- Magnesium 197 mg
- Sodium – 5 mg
- Phosphorus 457 mg

Microelements:

- Iron – 4.57 mg
- Manganese – 2.033 mg
- Copper – 590 µg
- Selenium 8.5 µg
- Zinc 3.1 mg

Nutritionists believe that quinoa is outstanding among cereals by the number of valuable substances.

The main advantage of culture is that it is an excellent source of vegetable whole protein (it is even more in the movies than in buckwheat), while the protein of the quinoa is perfectly digested. The raw grains contain on the average 16.2% protein, and in a number of varieties – more than 20% (for comparison: 11-14% in wheat, 10 – in prosice, 7.5 – in rice, 3.5 – in maize) . It is this protein content that made the quinoa just an indispensable product for pregnant women, children, athletes and people engaged in physical or mental work.

This product, as no other source of protein, contains all the valuable amino acids: arginine, valine, isoleucine, histidine, lysine, leucine, methionine, cysteine, tryptophan, threonine, phenylalanine, tyrosine.

Due to the fact that the culture contains lysine, the body absorbs calcium better, and the healing of damaged tissues occurs faster and more efficiently. Also, lysine helps to improve growth and has a good effect on the formation of bones.

Also there are almost all interchangeable amino acids: alanine, aspartic acid, glycine, glutamic acid, serine, proline, cysteine, tyrosine in quinoa.

In addition to unique proteins, the quinoa contains both fats (high in lecithinic acid), carbohydrates, minerals, fiber and vitamins B. In movies, more folates (4 mg), riboflavin (0.1 mg) and fiber (2.8 g), than in barley, wheat and rice.

Fiber helps to remove toxins and other harmful substances from the body, cholesterol. In addition, the product is rich in phytic acid, which can reduce cholesterol and prevent the development of cancer.

The seeds of quinoa contain many different minerals: magnesium, potassium, iron, calcium, zinc. Also, they are rich in phosphorus. So, it is three times more than in rice of the highest quality, and as much as in many kinds of fish.

5 reasons to eat quinoa seeds in the food:

- Absence of gluten in the composition.



- High content of phosphorus, B vitamins, calcium and iron, as well as the most valuable antioxidants of quercetin and kaempferol.
- The full value of the protein component is the only crop in the world that is close to meat by amino acid composition.
- Low or medium glycemic index (from 35 to 53 in different grades) and ability to equalize blood sugar level.
- Unusual taste and texture, as well as culinary versatility: quinoa seeds are used to make pastry and pasta, salads, side dishes.

#### SEEDS OF QUINOA IN COMBATING DISEASES

##### **Therapeutic and useful properties**

- Quinoa is very useful for those who suffer from cardiovascular diseases, hypertension and diabetes. It reduces the level of sugar and cholesterol in the blood, and also provides reliable protection against the development of malignant tumors.
- Normalizes digestion, cleanses the body of toxins.
- This culture is absorbed by the body almost completely.
- It contains absolutely no gluten, so it is recommended to people suffering from allergic reactions.
- Quickly restores strength, satiates and strengthens the body, so it is recommended to people who have suffered a serious illness and operation, as well as those who are engaged in heavy physical labor.
- Strengthens the bones and helps with many diseases of the bone system.
- The high content of high-grade vegetable protein makes this culture a valuable product for vegetarians, athletes, pregnant women, children and slimming ones.

The healing properties of the culture were discovered by Indians, for which the seeds of the plant were one of the components of the diet. It has a beneficial effect on the heart and the vascular system, due to the presence of magnesium relieves tension in the vessels. People suffering from migraines, including quinoa in their diet, will be able to get rid of the pain permanently.

Due to its composition, this product, first of all, is necessary for the formation of a healthy and strong organism, from the bones to the internal organs. Constant use will help to strengthen the bones, which means, to get rid of many diseases, for example, arthritis, which is important for the elderly.

The constant use of quinoa will lower the level of sugar, prevent the development of cardiovascular diseases, help to protect against anemia.

Experts recommend using quinoa to feed pregnant and lactating women. When breast feeding, it is recommended to enter the product into the diet with caution, watching the reaction of the child.

But first of all, quinoa is a powerful restorative means, which is so necessary for people who had surgery or complicated illnesses, as well as those who spend a lot of energy every day.

Seeds of quinoa contain saponins, they proved effective in the prevention of cholesterol deposits. In addition, a high content of cellulose also gives a certain benefit; The use of quinoa is considered a good option for those who want to strengthen immunity. Apparently, this is due to the high protein content; The quinoa does not contain gluten, and can be a component of the ration of allergy sufferers and a good option for those with celiac disease.

##### **In short – about quinoa seeds**

- It is ideal for vegetarians and can replace animal protein.

- It does not contain cholesterol and gluten, which allows you to eat cereal with sick celiac disease.
- There is no gluten in it, than suitable for gluten-free diet.
- Grains contain lysine, which promotes faster healing of wounds.
- The glycemic index (35), therefore, is not contraindicated to diabetics and does not contribute to a sharp increase in blood sugar levels.
- Helps strengthen bone tissue.
- Stimulates the work of the intestine.
- Contains scant amounts of starch. In a condition to replace a potato, rice, macaroni, but thus does not concede to these products on a nutritiousness.
- The fibers available in the croup absorb bad cholesterol, thus preventing it from being deposited on the vessel walls in the form of blood clots and cholesterol plaques, which helps in the prevention of cardiovascular diseases and stroke.
- Contains powerful antioxidants and flavonoids, which have an antiviral, anti-inflammatory effect.

The strength of the impact on the human body quinoa can't be compared to any cereal. It is a very valuable source of digestible vegetable protein. In some sorts of grain its content exceeds 20%, which is much higher than the average statistical indicators. In this case, the protein contained in the croup of quinoa, has an ideal balance of amino acid composition and properties close to milk proteins. This makes the quinoa an indispensable product for children, vegetarians, pregnant women, athletes and people who are constantly exposed to great physical or mental stress.

Thanks to the lysin contained in the quinoa, the body absorbs calcium very well, it promotes growth, strengthening and formation of bone tissues. Therefore, this product will be an excellent preventive and therapeutic agent for arthrosis, arthritis and other similar diseases. Also, the croup of quinoa helps in the rapid healing of damaged tissues, prevents the appearance of anemia, hair loss, irritation and absent-mindedness.

## 9 USEFUL PROPERTIES OF THE QUINOA IN THE FIGHT AGAINST DISEASES

### 1. NECESSARY ELEMENT IN THE RATION OF PATIENTS WITH CELIAC Disease.

Celiac disease is a disease associated with gluten intolerance, which is found in most cereals. Studies show that the inclusion of a very nutritious cereal quinoa in a gluten-free diet with celiac disease is well tolerated by patients and does not worsen their condition.

### 2. PREVENTION OF OSTEOPOROSIS. HELP AT ARTHRITIS.

Quinoa contains a lot of minerals, including manganese, which is an important component for preventing osteoporosis and arthrosis. It is able to significantly compact the bone tissue. One cup of prepared quinoa contains about 1,167 mg of manganese, which is 50.74% of the daily recommended dose. Therefore, consuming quinoa, it is possible to prevent such dangerous diseases as osteoporosis, arthrosis and other bone diseases.

### 3. IMPROVEMENT OF THE WORK OF THE DIGESTIVE SYSTEM.

Phosphorus and calcium are no less important elements for maintaining bone health and integrity. In addition, phosphorus plays an important role in improving digestion. It stimulates digestion with niacin and riboflavin, and makes the digestive process more effective. Phosphorus helps to get rid of constipation, indigestion and diarrhea. Thus, the inclusion of cereals in the daily diet helps to solve many problems with the digestive tract.





#### **4. NORMALIZATION OF THE THYROID FUNCTION**

Copper is of great importance for the general state of human health, since this mineral provides a normal process of metabolism together with amino acids and vitamins. Copper can be produced directly in the body, as well as replenished from external power sources. Quinoa contains a significant amount of copper, which is necessary for normal thyroid function. One cup of cooked quinoa consists of 0.355 mg of copper, which is 39.44% of the recommended daily dose. Excess of copper is also a cause of disruption of the thyroid gland, so a well-balanced amount of copper is the guarantee of your body's health. Imbalance can lead to hypothyroidism or hyperthyroidism.

#### **5. PREVENTION OF ANEMIA IN PREGNANCY**

Iron has a direct relationship to the proper growth of the human body and the maintenance of its strong health. Deficiency of iron can cause weakness, fatigue, poor concentration and many other unpleasant sensations. A full value of iron in the body is very important for pregnant women, so future mothers should consume more foods rich in iron, including quinoa.

#### **6. IMPROVEMENT OF CARDIAC-VASCULAR SYSTEM WORK**

Magnesium is an important mineral for maintaining health. It is necessary for the maintenance of cardiac muscles and nerve functions in the norm and for the prevention of arrhythmia. Magnesium deficiency can lead to heart disease, which often leads to a fatal result. The food rich in magnesium must necessarily be included in the human diet to reduce the various risks of heart disease. Consumption of quinoa protects the heart from uneven heartbeats, and also carefully protects the heart from damage and muscle strains. One serving of cooked cereal quinoa contains 118 mg of magnesium, which is 28.10% of the daily recommended product rate.

#### **7. PREVENTION OF ANEMIA IN Spanaemia**

Vitamin B9 (folic acid) is necessary for the acceleration of metabolic processes in the human body. It has a beneficial effect on the treatment of patients suffering from anemia as a result of a deficiency of folic acid. It can be found in products such as green vegetables, cheese and mushrooms. Synthetic folic acid can be used to treat diseases caused by a deficiency of folic acid. It can be included as part of the recommended treatment mainly in cases of menstrual irregularities, as well as with ulcers on the legs.

#### **8. PREVENTION OF EYE DISEASES**

Poor nutrition and nutritional deficiencies are the main cause of a number of eye diseases. Studies have shown that regular consumption of foods rich in vitamin B6, including quinoa, can help prevent various eye diseases, and even loss of vision. Consumption of quinoa can slow the onset of certain eye diseases, in particular age-related macular degeneration. One cup of cooked cereal contains 0.228 mg of vitamin B6, which is 17.54% of the daily recommended dose.

#### **9. CONTROL OF SUGAR LEVEL IN BLOOD. DIABETES PREVENTION.**

Dietary fiber contained in the quinoa is very useful not only for full digestion, it is also able to slow down the absorption of sugar and, accordingly, increase its level in the blood of people suffering from diabetes. Fibers help maintain a healthy weight, reduce the risk of diabetes, and also prevent the development of heart disease.

#### **SEEDS OF QUINOA AND SLIMMING**

Quinoa contains a lot of fiber, thanks to that, it is simply necessary for everyone who suffers from heart disease, diabetes, is overweight to consume it.

Quinoa is considered to be useful for: improving digestion. This is a valuable source of fiber. It helps to establish regular cleansing of the intestines, get rid of constipation and its unpleasant "external" consequence – edema. Cellulose of quinoa has a beneficial effect on the intestinal flora. In

the end, the use of different cereals promotes a more complete assimilation of nutrients from food. Fiber is very useful for losing weight. It provides more satiety with fewer calories. Usually those who want to lose weight are advised to eat about 25 grams of fiber per day from different foods; Health of the hormonal system. Quinoa gives us complex carbohydrates. Without them, it is extremely difficult to maintain the normal rate of metabolic processes. Their deficiency can affect the secretion of thyroid hormones. For a long time people who refuse cereals can suffer from the inability to lose weight even on a low-calorie diet, too; Complex carbohydrates “nourish” our nervous system. It is known that the minimum of carbohydrates for brain work is 140 grams per day. Some of them can be obtained from quinoa. If you refuse yourself in carbohydrate fuel, sooner or later, there will be problems with the nervous system. Many people who abandoned crops and not replenishing the deficit with fruits suffer from insomnia, headaches, sleep disorders, and retardation; The use of cereals according to some data promotes healthy eating behavior. Their exclusion is often the reason why a person turns to too frequent “approaches” to food, too “fractional” diet, and can not cope with himself, gaining kilograms and plunging deeper into self-blame. Usually, it is recommended that a minimum of 2-3 servings of cereals are recommended for those who lose weight, you can get half of the norm with a quinoa, or even all if you like it very much; quinoa can help in the fight against cholesterol and heart disease.

Seeds of quinoa do not cause gastrointestinal disturbances even for people sensitive to plant proteins; quinoa is considered to be a rich source of vitamins of group B. They allow our nervous system to work correctly, and participate in metabolism. Often nutritionists recommend weight-reducing people to monitor the consumption of these vitamins, as they affect the rate of metabolic processes.

Quinoa is ideal for losing weight. Even despite the high caloric content, the groats can be used in diets. Dietary fiber in quinoa is digested in the body for a long time, creating a satiety effect.

Groats is used in a gluten-free diet, which helps not only to get rid of excess kilograms, but also improves the functioning of the body. Given the high content of vegetable protein, quinoa can be included in the menu of protein diets. There are reports that the composition of cereals is similar in many ways to women’s milk.

#### Benefits of quinoa for slimming

- Grains retain a low calorie content – half a glass of cooked cereal contains only 110 calories. While for adults per day you need to consume up to 1200 calories.
- Thanks to the average glycemic index, the level of sugar in the blood after eating this cereal remains balanced and there is no desire to eat something sweet, and this is also a plus in favor of losing weight.
- Protein, in quinoa pretty much, reduces appetite and improves metabolism.
- A large amount of vegetable fiber helps to satiate faster and last longer to calm the hunger, which allows you to eat less per day and as a result to get fewer calories.
- And one more thing about quinoa:
- Growth of muscles and strengthening of the body with the help of useful composition of the quinoa
- The abundance of fiber contributes to the removal of toxins from the body and accelerates the metabolism
- Soothes the nervous system
- Lowers blood sugar levels
- Quinoa can be used as a scrub to fight cellulite and to cleanse the skin



- It has a rejuvenating effect
- Thanks to a diuretic action, bile is excreted out of the body

#### CONTRAINDICATIONS TO USE SEEDS OF QUINOA

In the diet of children and nursing mothers, this groats should be used cautiously and gradually, since the fetus and one-year-old babies can be sensitive to this product.

Per se, there are no contraindications. Since the groats contain many oxalates (salts and esters of oxalic acid), an overabundance of which can lead to problems with the kidneys, you should consult a doctor before eating it, or just add it into your diet gradually. Also, it is recommended to refrain from using quinoa for nursing mothers, since it is known how a small, fragile organism will react to such a powerful charge of vitamins.

Quinoa is contraindicated to children under 2 years old, as well as people who have problems with kidneys and joints, since the plant contains oxalates and a large amount of protein. Also, cautiously and gradually, you need to add quinoa into diet of nursing mothers, as there is a possibility of young children's individual intolerance.

It is not recommended the use of vegetable protein in the period of exacerbation of diseases of the gastrointestinal tract, pancreas, and with individual intolerance of the product. People with dysbacteriosis may have difficulty in digesting and assimilating the product. Sometimes there is an allergic reaction to vegetable protein, but its manifestations are extremely rare. Quinoa with caution should be added into children's complementary foods, since it is very rich in fiber.

#### MUSTARD SEEDS

The nutritional value of mustard seed is very high, and they are actively involved in the process of burning fat, accelerate metabolism and significantly improve overall health.

For those who want to lose weight in a healthy way, it makes sense to enter the mustard seeds in the daily diet.

Mustard seeds as spice are used in various marinades not only because of the high palatability, but also because they prevent fermentation and decay processes do not allow the mold.

Adding mustard seeds into the food, you will not only make it taste better, but much more healthy.

#### A MIXTURE OF SEEDS "MEGAMIX" LIFE'S NATURAL TREAT

**A mixture of flax seeds, pumpkin seeds, pine nuts, sesame seeds, poppy, kernels of sunflower seeds and green buckwheat has unique natural properties.**

MEGAMIX seed mixture is used as a delicious and valuable dietary supplement in the preparation of various vegetable and fruit salads, various cold dishes, salads, sauerkraut and sauces. A mixture of seeds can be added to any willing cereal, mashed potatoes, ready in the first and second courses. Very tasty and useful mix with cheese and herbs, sour cream and mayonnaise. A mixture of seeds can be consumed with milk, yogurt and kefir. Good to be added to flour for baking.

Adding the mixture of seeds into these dishes does not change the technology of their cooking, only improves the quality of the food and increases their nutritional value.

Flax seeds contain protein of high biological activity, which by its composition is close to ideal for the human body. Flax seeds – is the richest plant source of essential fatty acids high omega-3 and omega-6. According to their content flax seeds exceed all other products in the normal human diet.

If omega-6 is found in other products, the omega-3 in sufficient quantity is present only in fish oil

and flax seeds. The content of omega-3 in flax seeds is 2 times higher than in the fish oil. This is especially important for women over 45 years. Also, flax seeds contain vitamins: D, E, B2, B3, B4, B5, B6, B9, beta-carotene, minerals, macro and trace elements: potassium, calcium, magnesium, iron, manganese, copper, chromium, selenium, aluminum, nickel, iodine, boron, zinc.

Thanks to unique natural properties of flax seeds, their use is recommended:

- atherosclerosis;
- for prevention and auxiliary treatment of cardiovascular diseases;
- To reduce the likelihood of blood clots; diabetes (omega-3 improves insulin action and protects the body from the emergence and development of diabetes. This not only improves the perception of insulin and decreases blood cholesterol);
- liver diseases to improve its functioning;
- for prevention and for diseases of the thyroid gland;
- in diseases of the gastrointestinal tract;
- for lowering blood pressure and support the immune system of the person;
- for improvement of the skin and hair;
- to facilitate the removal of toxic substances from the body;
- as a fortifying agent;
- as a tool that has strong antiparasitic properties

Pine nuts are rightly called a source of nutrients. Pine nuts – it's a rich set of amino acids, many of which are unique and essential to man.

Pine nuts contain many macro and micronutrients (iron, zinc, iodine, boron, nickel, phosphorus, calcium, copper, silicon, molybdenum, manganese, potassium, tin, magnesium, vanadium), vitamins (E, A, B1, B2, B3, K) and carbohydrates (sucrose, pentose, glucose, fructose, starch and cellulose).

Pine nuts positive effect on potency, brain activity, have anti-inflammatory and analgesic properties, help in treatment of stomach ulcers, anemia, atherosclerosis and diseases of the duodenum. They have a positive effect on the blood, are the prevention of tuberculosis and have bracing properties.

Nutritional and medicinal properties of pine nuts can be explained by the qualitative composition of fats, proteins and other substances contained in them.

Fat of pine nuts is different from other plant oils, high presence of higher essential fatty acids, especially linoleic.

From nitrogen compounds in pine nuts dominates the protein, characterized by a high content of amino acids, which are dominated by arginine. This amino acid is extremely important for the development of the growing organism and therefore in the diet of children, teenagers and pregnant women pine nuts are irreplaceable. At the same time pine nuts' protein is almost completely absorbed by the human body.

Particularly pine nuts are useful with immunodeficiency, allergic diseases, atherosclerosis, ischemic heart disease and diseases of the gastrointestinal tract, including peptic ulcer and cholelithiasis.

Pine nuts have no contraindications for use both in food and in medical purposes.

Green buckwheat (usually called as "live" buckwheat) reduces and stabilizes blood glucose level, normalizes blood sugar, which is important in diabetes. It prevents tumor growth, reduces the risk of thrombosis, helps cleanse blood vessels from the "bad" cholesterol, prevents the progress of cardiovascular disease, improves overall resistance.



In the raw green buckwheat, since it is not subjected to heat treatment, are saved all of life's ingredients, which can not be said of the usual brown (roasted) buckwheat. This is incredibly valuable and nutritious food is especially popular among fans of healthy food around the world, especially in the "raw-foodists". It is in this form of the product, not subjected to heat treatment, saves a lot of vitamins and nutrients.

High protein raw buckwheat is well balanced in its amino acid composition. Due to its unique composition of raw buckwheat is recommended for eliminating excess weight and is very useful for weight loss. Due to the large number of flavonoids (quercetin, rutin, orientin, izoorientin), raw buckwheat has antioxidant properties.

This unique product is recognized as one of the best suppliers of antioxidants that boost the immune system, inhibit aging, eliminate negative environmental impact, remove bad cholesterol and increase the protective properties of the cells.

Poppy seeds are used as anthelmintic and as a product that affects the absorption and digestion of food very well. Poppy seeds rich in monounsaturated fatty acids, including oleic acid, which prevent the formation of plaque on the walls of blood vessels. Poppy seeds also contains vitamins B, which are beneficial to the nervous system, vitamin PP, which improves circulation, helps in the fight against pellagra, diarrhea, dermatitis and mental disorder.

Kernels of sunflower seeds rich in polyunsaturated fatty acids, so is an excellent tool for the prevention of atherosclerosis, heart attack and other diseases of the cardiovascular system. They enhance immunity, protect against premature aging, normalize the intestinal, cardiovascular and nervous systems, improve skin, hair and nails, strengthen bone tissue and accelerate repair of damaged bones, useful for liver, helps with depression and stress.

Sesame seeds are widely used in eastern medicine. It is recommended to use as supplements to the diet for the normalization of the gastrointestinal tract, as an additional source of plant protein, to reduce blood sugar level to reduce the likelihood of blood clots, liver diseases, musculoskeletal, nervous and hematopoietic systems, with increased cholesterol, anemia, internal bleeding, the thyroid hyperfunction, occlusion of vein.

Pumpkin seeds beneficial effects on the cardiovascular system: the high iron content helps to improve the quality of blood; amino acids strengthen the walls of blood vessels.

The use of pumpkin seeds improves skin, reduces fat excretion, relieves acne and dandruff.

Due to the content in the seeds of the pumpkin worm poison CUCURBITIN (completely harmless to humans), pumpkin seeds is an excellent remedy for intestinal worms. Due to the fact that pumpkin seeds are rich in zinc, their usage is extremely useful to men, cause exactly pumpkin seeds tend to reduce the risk of prostate.

Zinc, which in large quantities is found in pumpkin seeds, prevents the growth of connective tissue in the prostate gland, which is observed in adenoma and prostatitis. Thanks to that same zinc, skin condition, while dandruff and teenage acne, improves. In addition, pumpkin seeds prevent premature aging, can stimulate the reproductive glands function, perfectly stabilizes blood pressure and is especially useful for hypertensive patients.

It is well founded believed that pumpkin seeds output from the human body harmful lead and cadmium. Also, pumpkin seeds are an excellent antistress means.

Pumpkin seeds are useful not only for men but also women, thanks to the pumpkin seed hair becomes more beautiful and the skin retains youth for longer.

In the body of a child pumpkin seed has not only a strengthening, but also a sedative effect.

Fiber, contained in each of the seeds, promotes to more complete digestion and normalizes bowels' microflora. It is useful to people suffering from overweight and obesity to normalize and correction of weight. Getting into in the gastrointestinal tract, fiber contained in the seeds, absorbs everything that has accumulated in our gut for many years. And there is a lot of accumulated: the average person because of layers on the walls of the large intestine, its diameter narrows 2-3 times. These layers (fecal stones, pus, mucus, etc.) are absorbed and removed from the body by fiber. Insufficient use of fiber in the diet of people leads to a significant increase in the number of patients with chronic constipation, hemorrhoids, appendicitis, colon cancer, diverticulosis and inflammatory diseases of the colon.

Cleansing the body from toxic substances, fiber removes nitrates which entered the body with fruits and vegetables.

If you like to eat excessively – do not forget to add to your food fiber: its digestion requires more energy than usual. On average, you will lose 150 calories a day, not applying to this absolutely no effort. Exactly as we lose during 20-minute jog.

Pectin contained in the plant fiber, called “a medicine against the harmful effects of the city”. Pectin reduces cholesterol in the body, contributes to the normalization of metabolic processes, improves peripheral circulation and peristalsis. However, their most valuable property is that they have the ability to clean alive organisms from harmful substances. And this natural “cleaner” works very effectively, without leaving any “garbage” and thus not disrupting bacterial balance.

Pectins remove toxic metal ions, pesticides and radionuclides. Therefore pectins are used as a prophylactic means in a harmful environment saturated with heavy metals, radioactive substances and nitrates.

In the process of digestion pectin turns into acid, which combines with heavy metals and radionuclides, resulting in formation of insoluble salts, which are not absorbed by the mucous of the GI tract and under the influence of fiber, rapidly removes from the body.

Neither pectin nor cellulose can be digested in the stomach, both do not turn into fat deposits, but clean, absorb and excrete everything unnecessary and harmful. It takes 2-3 months to cleanse the body by receiving fiber.

#### A MIXTURE OF SEEDS “HEALTH” YOUR HEALTHY AND TASTY CHOICE

A mixture of flax seeds, sesame seeds, poppy seeds and kernels of sunflower seeds is a product of outrageous high biological value, with unique natural properties.

Such A mixture of seeds can be added to any willing cereal, mashed potatoes, ready in the first and second courses. Very tasty and useful mix with cheese and herbs, sour cream and mayonnaise. A mixture of seeds can be consumed with milk, yogurt and kefir. Good to be added to flour for baking.

Adding a mixture of seeds in these dishes does not change the technology of their preparation, and only improves the quality of the food and increases their nutritional value.

Flax seeds contain protein of high biological activity, composition of which, is close to ideal for the human body.

The most important components of flax seeds' fiber are indispensable highest fatty acids: Omega-3 (34.84%); Omega-6 (19.21%); Omega-9 (22.82%). The content of Omega-3 and Omega-6 in flax seeds is superior to all other conventional foods of the human diet. Omega-6 can be found in other products, but Omega-3, sufficiently only contained in the fish oil and flaxseed. Flax seeds have Omega-3 2 times more than fish oil does. This is especially importante for women after 45 years. Also flax seeds contain

vitamins: D, E, B2, B3, B4, B5, B6, B9, tocopherols, beta-carotene, minerals, and macro minerals: potassium, calcium, magnesium, iron, manganese, copper, chromium, selenium, aluminum, nickel, iodine, boron, and zinc.

Thanks to the unique natural properties of flax seed, it is recommended to use:

- in atherosclerosis; for prevention and auxiliary treatment of cardiovascular diseases;
- to reduce the likelihood of blood clots;
- diabetes mellitus (omega-3 improves the action of insulin and protects the body from the emergence and development of diabetes. This not only improves the perception of insulin, but also reduces the level of cholesterol in the blood);
- liver diseases to improve the functioning of the liver;
- and for the prevention of diseases of the thyroid gland;
- diseases of the gastrointestinal tract;
- for lowering blood pressure and maintenance of the human immune system;
- to improve skin and hair;
- to facilitate the taking out of the toxic substances from the body;
- as a bracing agent;
- as a means of having a strong antiparasitic properties.

Poppy seeds are used as an anthelmintic and as a product favorably affect the absorption and digestion of food.

Sunflower seeds are rich in natural polyunsaturated fatty acids, thus are an excellent means for the prevention of atherosclerosis, heart attack and other diseases of the cardiovascular system. They improve immunity, protect against premature aging, normalize intestinal function, cardiovascular and nervous systems, improve the condition of skin, hair and nails, strengthens bone tissue and speed up the recovery of damaged bones, are useful in diseases of the liver, helps with depression and stress.

Sesame seeds are widely used in eastern medicine. They are recommended to be used as a supplement to the diet for the normalization of the gastrointestinal tract, as an additional source of plant protein, to reduce blood sugar levels, to reduce the likelihood of blood clots, to accelerate blood clotting, liver diseases, musculoskeletal, nervous, hematopoietic systems, with high level of cholesterol in the blood, anemia, internal bleeding, with hyperthyroidism, with venous congestion.

Fiber, contained in the mixture of seeds, promotes a better digestion and normalizes intestinal microflora. It is useful for people suffering from overweight and obesity for the normalization and correction of weight. Getting into the gastrointestinal tract, fiber absorbs everything that has accumulated in our gut for many years. And there is a lot of accumulated: the average person because of layers on the walls of the large intestine, its diameter narrows 2-3 times. These layers (fecal stones, pus, mucus, etc.) are absorbed and removed from the body by fiber. Cleansing the body from toxic substances, fiber removes nitrates which entered the body with fruits and vegetables.

If you like to eat excessively – do not forget to add to your food fiber: its digestion requires more energy than usual. On average, you will lose 150 calories a day, not applying to this absolutely no effort. Exactly as we lose during 20-minute jog.

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effectively, without leaving any “garbage” and thus not disrupting bacterial balance. Pectins remove toxic metal ions, pesticides and radionuclides. Therefore pectins are used as a prophylactic means in a harmful environment saturated with heavy metals, radioactive substances and nitrates.

In the process of digestion pectin turns into acid, which combines with heavy metals and radionuclides, resulting in formation of insoluble salts, which are not absorbed by the mucous of the GI tract and under the influence of fiber, rapidly removes from the body.

Neither pectin nor cellulose can be digested in the stomach, both do not turn into fat deposits, but clean, absorb and excrete everything unnecessary and harmful. It takes 2-3 months to cleanse the body by receiving fiber.

#### FLAX SEEDS YOUR HEALTHY AND TASTY CHOICE

Flax seeds are used as a tasty and valuable dietary supplement in the preparation of all kinds of cold dishes, any fruit and vegetable salads, cabbage, vinaigrette salad and sauces. Flax seeds can be added to any existing cereal, mashed potatoes, into ready first and second courses. Very tasty and healthy mixed with cottage cheese and herbs, sour cream and mayonnaise. Flax seeds can be consumed with milk, yogurt and kefir. Flax seeds are useful to add to baking pastry, eggs or as a substitute for oil. Adding flax seeds in these dishes does not change the technology of their preparation, and only improves the quality of the food and increases its nutritional value.

Ground flax seeds can be used to prepare tasty and healthy flax kisselly broth. It is cooked by boiling flax seeds of not less than a tablespoon in a pint of water for 10-15 minutes. When the broth of flaxseed is cooked for 2-3 hours in a water bath (1 liter of water per 2 tbsp. Tablespoons of ground seeds), it is disastrous for almost all fungi and helminths except of roundworm. Adding to this broth cloves (3% of the total weight of the flax seeds) makes also an excellent broth ascaricide.

The composition and useful properties of flax seed

Flax seeds contain protein of high biological activity, which in its composition is close to the ideal protein for the human body.

Flax seeds – is the richest plant source of essential polyunsaturated high fatty acids: Omega-3, Omega-6, Omega-9. These are vital acids that our body can not produce and we can only get them from food, which is consumed.

On the content of Omega-3 and Omega-6 flax seeds are superior to all other conventional foods of the human diet. If Omega-6 is contained in other products, the Omega-3 in sufficient quantity contained only in fish oil and flax seeds.

On the content of Omega-3 flax seeds are 2 times higher than fish oil. This is especially important for women.

Also flax seeds contain such vitamins as: D, E, B2, B3, B4, B5, B6, B9, tocopherols, beta-carotene, minerals, and macro minerals: potassium, calcium, magnesium, iron, manganese, copper, chromium, selenium, aluminum, nickel, iodine, boron, and zinc.

Flax seeds contain from 30% to 42% dietary fiber, 7% is – fiber, which is an essential component of the human diet. It provides the motor function of the gastrointestinal tract, effectively purifying the human body.

Flax seeds are the richest source of lignans. Lignans have a preventing effect on the different stages of carcinogenesis, breaking the growth of tumor cells. Lignans of flax seeds have a powerful antioxidant effect. Because of that, they are recommended in the treatment of atherosclerosis and coronary heart failure.





**Thanks to the unique natural properties of flax seeds, they are recommended to use:**

- in atherosclerosis;
- for prevention and auxiliary treatment of cardiovascular diseases;
- to reduce the likelihood of blood clots;
- diabetes mellitus (Omega-3 improves the action of insulin and protects the body from the emergence and development of diabetes. This not only improves the perception of insulin, but also reduces the level of cholesterol in the blood);
- liver diseases to improve the functioning of the liver;
- and for the prevention of diseases of the thyroid gland;
- diseases of the gastrointestinal tract;
- for lowering blood pressure and maintenance of the human immune system;
- to improve skin and hair;
- to facilitate the removal of toxic substances from the body;
- as a fortifying agent;
- flax seeds have a very strong antiparasitic properties.

Among people the flax seeds are considered to be a universal remedy against almost all diseases.

**Flax seeds and health benefits**

**Flax seeds and diseases of the cardiovascular system:** Because of the increase in the amount of cholesterol in the blood occurs hardening of the artery walls, increasing the number of plaques that impede blood flow in the coronary arteries feeding the brain. All this leads to atherosclerosis, the threat of heart attacks, paralysis. It is proved that flax seed contains Omega-3, which is called the natural elixir of youth. It reduces the level of cholesterol and triglycerides in the blood.

Flax seeds have a very wide range of health effects. As a result, their use in food reduces the likelihood of blood clots in the heart, lungs, brain, reduces high blood pressure, reduced risk of heart attacks, microinfarcts, arrhythmia, diseases associated with the heart valves, coronary heart disorders and other cardiovascular diseases. Flax seeds are used in treatment for atherosclerosis, coronary and peripheral vascular disease, cerebral vascular and other diseases accompanied by hyperlipidemia {high fat diet, especially high cholesterol in the blood}. Unlike medicines, flax seeds do not cause any side effects and have no contraindications.

**Flax seeds and gastro-intestinal diseases:** In modern times, people consume not enough fiber. The dietary fiber contained in flaxseed stimulates gastrointestinal activity (relaxation).

This is especially necessary for those who have the disorders in this area (ex., constipation, caused by various reasons). Polysaccharides have membrane static action, thus, flaxseed is applied as a coating, softening and anti-inflammatory agent for gastritis and gastric ulcer. Mucus of flax seed, when brewed with boiling water has a mild laxative properties. Taking it as ingestion, flax mucilage covers a thin layer of mucous membrane of the stomach and the esophagus, preventing them from irritation. This is particularly important at a stomach ulcer, which is usually accompanied by increased secretion of gastric juice. A layer of mucus is held for a long time, providing a protective and soothing effect in inflammation of the esophagus, gastritis, gastric ulcer and 12 duodenal ulcers, enteritis, colitis, chronic cholecystitis, hemorrhoids. Eating flaxseed normalizes the function of the liver.

Flax seeds are used also as an antiparasitic agent. In addition, flax seeds are used in food poisoning because polysaccharides reduce the absorption of toxins.

**Flax seeds and diseases of the respiratory system:** In the ancient Eastern medicine flax seeds

were used as a drug having “dissolving”, “cleansing” and “softening” properties. As described by Avicenna, flax seeds help from the “mucous cough” if breathing is difficult. Flax seeds are prescribed as an expectorant for pneumonia, acute and chronic bronchitis, pleurisy. Flax seeds promote and treatment of asthma. Sometimes this requires the consumption of only a few days.

**Flax seeds and anticancer activity:** Flax seeds contain at least two components, which can prevent or reduce the risk of certain types of cancers induced hormone sensitivity, for example, breast cancer and prostate cancer. Diseases are due to violations of the process of metabolism in the body. Balance metabolism process is achieved using phytochemicals (lignans).

Lignans have potent anticancer effects. Also have anti-cancer effects of Omega-3.

Flax lignans in the colon as a result of microbial metabolism are transformed into active phytoestrogens: enterolactone and enterodiol that normalize hormonal balance and protect the reproductive organs of the progress of hormone-dependent cancers. This is particularly evident in the case of breast cancer.

The properties of flax lignans are useful in the prevention and treatment of cancer of female and male reproductive organs, including the breast, uterine, ovarian, uterine fibroids, fibrocystic mastopathy, endometriosis in women, prostate cancer in men.

Inclusion in the diet, together flaxseed with additional nutrients provides high anti-cancer effect. Flax seeds must also be used for the prevention of this terrible disease.

**Flax seeds and radiation exposure:** Flax seeds in some cases, protect the body from the harmful effects of radiation exposure, facilitate the excretion of radionuclides in the radioactive contamination. By using flaxseed can rid the body of radionuclides, one cup of flax seeds pour 2 liters of boiling water and infuse it in a boiling water bath in a tightly sealed container for 2 hours to cool. Take about 1/2 g cup 6-7 times a day before meals.

**Flax seeds and diabetes:** According to Canadian researchers use of bread with 25% addition of flax seeds – leads to the fact that normal postprandial rise in blood sugar is 28% lower than when using a bread without the addition.

Flax porridge reduces dependence diabetics from insulin injections. In diabetes occurs lack of education and entry into the blood insulin – the hormone of the pancreas.

Frequent consumption of small amounts of flaxseed contains omega-3, enhances the action of insulin and protects the body from the emergence and progress of diabetes.

**Flax seeds and diseases caused by deficiency of prostaglandins:** Polyunsaturated fatty acids, in sufficient quantity contained in flaxseed are precursors of prostaglandins and have a pronounced anti-inflammatory action. They are very useful in pulmonary diseases, gastritis with high acidity and gastric ulcer, reduce peripheral vascular resistance, thereby reducing blood pressure, take part in the transmission of nerve impulses, restoring the work of the various bodies, promoting the normal development of pregnancy and childbirth.

**Flax seeds and inflammatory diseases:** Omega-3 helps with gastro-intestinal diseases, diseases of the genitourinary system, radiation damages the skin and burns. Ground flax seeds are recommended to take postoperative patients, since it increases the overall immunity of the body, prevents the formation of inflammatory processes. Omega-3 and lignans contained in flaxseed, simulate the immune response and may play a positive role in clinical practice regulation of autoimmune diseases, such as arthritis and lupus. For example, the inclusion of flax seeds in the diet in the treatment of arthritis is pretty successful. It is useful to lubricate sore spots with flax seed oil. Observations have shown that 60% of patients with rheumatoid arthritis were able to completely refuse to accept anti-inflammatory drugs,

and another 20% are cutting taking them.

**Flax seeds and diseases of the genitourinary system:** Through cleansing, anti-inflammatory and analgesic properties of flax seeds, they are used for diseases of the genitourinary system.

**Flax seeds and sexual dysfunction in men:** Flax seeds increase the production of testosterone, the male sex hormone, stimulates spermatogenesis improves erection and thus effective in impotence.

This action in the male body is due to the fact that flaxseed is a source of phytoestrogens.

**Flax seeds in different periods of women's life:** Flax seeds promote normal fetal growth and development, increases lactation in nursing mothers. Flax seeds minimize menopausal discomfort, reduces bone pain, vaginal discharge eliminates, reduces irritability, restlessness. This is largely due to the fact that flax seeds are a source of phytoestrogens.

**Flax seeds and obesity:** Due to the abundance of polyunsaturated fatty acids, flax seeds help to burn saturated fat, large amounts of which are contained in foods of animal origin.

**Flax seeds and allergies:** Eating flaxseed helps reduce allergic reactions. As a result of reduced allergic and inflammatory processes, the patient's condition improves.

**Flax seeds and mental illness, alcoholism, drug addiction:** According to data obtained by Dr. D. Rudin, deficiency of Omega-3 fats is one of the causes of most mental illnesses and mental disorders. In this regard, the use of flax seeds contributes to amelioration in schizophrenia, depression, alcoholism, drug abuse (particularly during withdrawal syndrome), a number of behavioral disorders. (Biological Psychiatry, Vol. 16, №9, 1981)

**Flax seeds during stress and neuralgia:** The stress produces biochemical toxic substances that destroy the body. Omega-3 hinders their formation. Flax seeds have a calming effect, which is important in stressful situations.

**Flax seeds and condition of the skin and hair:** Flax seeds provide a normal healthy skin and hair. Prevent them from age-related changes contribute to the return of "youthful skin." The use of flaxseed in the diet helps to improve the condition of patients with skin diseases whose treatment is often ineffective.

**Flax seeds and water retention:** Water retention (edema) in the form of edema observed in some types of overweight, postmenopausal cardiovascular disease and other diseases in which present complicated the conclusion of sodium and water by the kidneys. Eating flaxseed helps kidney function in these diseases.

**Other cases:** Flax seed helps with multiple sclerosis; Omega-3 is needed to improve vision (retinal); the function of the adrenal glands and the thyroid gland; sperm production.

#### **The use of flax seed in medical purposes:**

- For the treatment and prevention of diseases of the gastrointestinal tract as a coating and a laxative means: 2 tbsp. tablespoons flax seeds pour 1 cup of boiling water and allow to infuse for 10 minutes, stirring occasionally. Drink slimy infusion of 0.5 cups before eating.
- For constipation, swollen flax seeds taken orally 3 teaspoons 2-3 times a day, wash down with water.
- For the treatment and prevention of diseases of the heart and blood vessels, for cancer of breast and prostate: 2 tbsp. of flax seeds pour with 1 glass of boiling water, infused for 10 minutes. and is taken orally.
- In general for health and for preventive measures can just keep eating whole flax seeds, add them to the food (according to some reports not less than 5 g. per day), and for treatment – 50 g. per day during one to several months (ex., there are reports that the use of flax seed in an amount of 50 g.



per day for several weeks led to a positive result for the work of the heart muscle, immune system and did not cause the occurrence of side effects) .

- The infusion of flax seeds: 2 tablespoons of flax seed to pour with a glass of boiling water and infuse for 20 minutes. Consume 100 – 150 ml. 2-3 times a day 0.5 hour before eating, if coughs and as a laxative for constipation, especially in chronic colitis.

#### Use of flax seed in cosmetology

The great seductress of all times and nations – Cleopatra, gave to flax seed a special place in her famous cosmetics laboratories. In conjunction with the various components, flax beneficially affects any skin.

#### **For those who love their skin:**

- Mask of flax seed in dry facial skin is recommended to use 2 times a week: a handful of ground seeds pour with a little hot water, infuse for an hour. To grease the face with the resulting infusion and leave for 30 min, then rinse with warm water, dry and apply a skin moisturizer. The mask softens the skin, making it more oily, relieves irritation.

- Another mask: two tablespoons of flaxseed pour with 2 cups water and boil until mushy state. The resulting mass is hot (through a layer of gauze) put on the face and neck for 20 minutes. Rinse with warm water, and then rinse with cold one. If vasodilation – imposed cool mask and wash well with cold water. The mask has nourishing and smoothing effect, protects against wrinkles and folds. It is used for dry and thin, skin often having inflammation.

- With aging and dry skin the masks of chamomile and flaxseed are very useful. Prepare a cup of chamomile (2 tablespoons of dry inflorescences for a glass of boiling water), into cooked infusion put 1 tbsp. of flaxseed and stir well. The mush is applied onto the face. After 15 min, remove the mask with a cotton swab, wipe the face with a boric acid solution. Within an hour after the procedure, stay home.

- When going out be sure to lubricate the face bold or moisturizing cream. Mix equal parts of milled flaxseed flour and water, let it swell, then thickly, lubricate the face with this mixture. In 30 min. Mask must be rinsed with warm water.

- This one is recommended for dry and sensitive skin. 2 tbsp. of flax seeds boil for 10-15 minutes with 1 cup of water over low heat. The resulting gelatinous mass must be cooled, then added a teaspoon of white clay or talc, and stirred well. This mask should be kept on your face for 15-20 min. Then rinse with warm water. The mask is useful in loose, dry and normal to oily skin. Dry chapped skin must be first lubricated with fatty cream.

- A teaspoon of flaxseed and the same portion of ground oatmeal pour with fresh milk and let it infuse. Gruel with a brush or a broad brush, apply on face and neck for 15-20 minutes. Rinse with warm water. It works well on oily skin.

- If you have blackheads put on thoroughly cleansed face once a week, warm compress of flaxseed in the bag of gauze for 15-20 minutes. After its removal, lightly pressing 2 fingers to remove black comedones. Hands must be absolutely clean, better wrap your fingers two pieces of gauze soaked in a solution of hydrogen peroxide.

- Mask of flax seeds makes the skin and neck smooth and delicate. For that gruel of flaxseed broth must be lubricated on the neck and chest, cover with parchment paper and top with a towel. After removing the mask, skin is sprinkled with cold water and applied the cream on.

- When you have double-chin, in the evening, before going to bed, make a hot poultice of flax seeds, boiled in milk. Keep it about half an hour.



- Sty first is treated by cold compresses of boric acid, and later – by hot compresses of decoction of flaxseed.
- If the skin of the lips starts to peel off, there are red stains, it is recommended to wipe it with decoction of flaxseed. If your skin is very dry and cracked, it is recommended to do the bath of decoction of flaxseed. Dip the hands in the broth for 10 minutes. And then lubricate fatty nutritious cream or fish oil without first rinsing.
- Daily warm foot bath with a decoction of flax seeds (2 tbsp. per 1 liter of boiling water) relieves fatigue, improves blood circulation, cleanses the skin. Into water of room temperature, add the broth flaxseed. Put the feet and keep for 10-15 minutes. You can make and contrast baths, alternately dipping feet for 2-3 minutes into the cold and then hot water. You can add the hot water into decoction of flaxseed when it is necessary to.
- Baths of decoction of flaxseed and potato peelings are recommended for corns, callous skin and cracked heels.
- Too dry, flaky skin can be helped with bath of thick flaxseed and chamomile broth (100 ml of each component to the bath). The duration of the bath is 10-15 minutes.
- Infusion (1 tsp. of flaxseed to shake for 15 min. in 30 ml of hot water) or decoction of flax seeds (1 tsp. of seeds to boil for about a minute in 1 glass of water, to infuse, stirring frequently, for 2-3 hours and strain) can be applied to wet hair by winding on rollers. This method is quite time-consuming, but the flax keeps hair better than any hair spray, and hair thus will never be sick and split.

SLIME OF FLAX SEEDS IS PERISHABLE THEREFORE IT SHOULD BE PREPARED DAILY

### SPECIES

- Salt of Svaneti
- Bean seasoning
- Dry adjika
- Utskho Suneli
- Coriander
- Bay leaves
- Cinnamon pods
- Black pepper grains
- Tuemerik powder
- Garlic Powder
- Citric acid
- Saffron
- Oregano
- Basil
- Coarsely ground red pepper
- Ground red pepper
- Pickled Jonjoli

### BERRIES, GRAPES, SEEDLINGS, SAPLINGS

GROWING OF BERRIES, GRAPES AND OTHER GREENS, SEEDLINGS AND SAPLINGS IN OPEN SOIL AND IN GREENHOUSES

Along with the production of other foods, “Global Longevity” Ltd. engaged in cultivation in both open soil and greenhouses of such crops as early and remontant wild strawberries, raspberries, currants, grapes of best table variety.

We also grow and sell high-quality seedlings of wild strawberries, grapes, raspberries and currants.

## COPTOTES

### **Peach and blueberry compote**

100% NATURAL PRODUCT!

The combination of useful substances for the organism, the fruit of peach and blueberry impact very favorably on the body. The combination of these two has a variety of fruit astringent, anti-inflammatory, anti-diabetic, anti-inflammatory, hemostatic, antibacterial, diuretic and choleretic properties. Compote is recommended to drink chilled.

### **Quince compote**

100% NATURAL PRODUCT!

Quince compote is made from good ripe quince. In quince have provitamin A, vitamin B, C, E, PP, a number of other trace elements. Potassium quince is 10 times higher than sodium. Quince is rich in malic and citric acids. There are also a lot of pectins and tartronic acid.

Quince compote strengthens the body, acts as an anti-inflammatory, astringent and diuretic. It is recommended to drink at the problems of the gastrointestinal tract, anemia, heart disease and respiratory diseases.

### **Peach compote**

100% NATURAL PRODUCT!

Peach compote contains organic acids: malic, tartaric, citric, mineral salts of elements such as potassium, iron, phosphorus, manganese, copper, zinc, selenium, and magnesium. It is rich in vitamin complex: vitamin C, vitamin B, E, K, PP, and carotene. The composition of peach compote also includes pectin and essential oils.

Peach compote enhances the secretory activity of the stomach, improves digestion of fatty foods, has useful properties for such ailments as gout, rheumatism, kidney disease.

### **Feijoa Compote**

100% NATURAL PRODUCT!

Fruit feijoa contains vitamins (B1, B2, B3, B5, B6, PP), micro- and macroelements (iodine, calcium, potassium, sodium, magnesium, phosphorus, iron, copper, zinc, manganese), acids (malic acid, folic) and essential oils with aroma of pineapple and strawberries. Due to the presence in the fruit pulp of digestible protein and fat feijoa relates to dietary foods, using which you can replace one of the meals or it can be used in dishes for diet. This will compensate for the lack of vitamins and reduce weight.

Feijoa fruit doctors prescribe to people with disorders of the thyroid gland and mental stress. Also it is used in the treatment and prevention of diseases such as inflammation of the digestive tract, gastritis, atherosclerosis, vitamin deficiency, vitamin deficiencies, pyelonephritis, gout, Graves' disease, and constipation.

## CONFITURE

### **Fig Confiture**



It contains minerals (potassium, calcium, magnesium, phosphorus, iron), vitamins: C, B1, B2, beta-carotene.

Confiture useful in diseases of the cardiovascular system. We recommend that patients with venous insufficiency, anaemia, thrombosis. Widely known diuretic and diaphoretic properties of this Confiture, is taken for indigestion and as a light laxative.

#### **Cornel (dogwood) Confiture**

It contains macro and trace elements, vitamins: C, B1, B2, B6, PP. Confiture is used as a diuretic and is assigned in urolithiasis, recommended for febrile conditions, cough, anaemia.

#### **Nut Confiture**

It contains a large amount of protein and vitamins.

Nut Confiture improves the cardiovascular system and blood circulation in the body, removes radionuclides actively, used in the treatment of thyroid diseases, recommended dietary nutrition with hypo and avitaminosis, deficiency in iron and cobalt salts as general health-improving tool for prevention and treatment of atherosclerosis

#### **Mandarin Confiture**

Contain vitamins: C, B1, B2, B3, B5, B6, B9.

Mandarin confiture has anti-scorbutic effect, increases appetite, improves metabolism. It is recommended for bronchitis and diseases of the gastrointestinal tract.

#### **Quince Confiture**

Contains macro and micronutrients, minerals (potassium, calcium, magnesium, phosphorus), vitamins: A, B1, B2, B6, C, E, PP.

Confiture recommend to use in bronchial asthma, general malaise, and disorders of the stomach and intestines, liver and respiratory systems.

#### **White cherry Confiture**

Contain vitamins: A, PP, B1, B2, E.

White cherry confiture recommend to use in rheumatic and catarrhal diseases. Confiture activates metabolism, improves the appetite and brain, while also bracing effect on the entire body.

#### **Cherry Confiture**

Contain vitamins: C, A, PP.

Cherry confiture recommend for any diet. Cherry jam increases hemoglobin level, saturating the blood with iron, copper and cobalt. Substances in cherries help to reduce cholesterol and blood sugar.

## **JAM**

#### **Fig jam**

It has different taste and pleasant aroma.

It Contains minerals (potassium, calcium, magnesium, phosphorus, iron), vitamins: C, B1, B2, beta-carotene. Jam useful in diseases of the cardiovascular system, recommended for thrombosis, anaemia and to improve digestion.

#### **Peach jam**

It stands out for taste and pleasant aroma.

Contains minerals (potassium, calcium, magnesium, phosphorus, iron), vitamins: C, B1, B2, beta-carotene. Consumption of dietary nutrition with anaemia, we recommend that patients with cardiovascular disease.



**Plum jam**

It stands out for taste and pleasant aroma.

Contains minerals (potassium, calcium, magnesium, phosphorus, iron), vitamins: C, B1, B2, beta-carotene. Recommended for dietary nutrition in diseases of the gastrointestinal tract and cardiovascular system.

**Quince jam**

It stands out for taste and pleasant aroma.

It Contains minerals (potassium, calcium, magnesium, phosphorus, iron), vitamins: C, B1, B2, beta-carotene. Recommended for dietary nutrition in diseases of the gastrointestinal tract and cardiovascular system.

**JUICES****QUINCE juice**

100% NATURAL PRODUCT!

Quince juice promotes the removal of cholesterol from the organism, it is recommended to atherosclerosis, juice helpful for gastritis, hypertension, gallbladder disease and kidney as potassium, contained in it, releases the body from water and table salt.

Effect: regulating the activity of the gastrointestinal tract.

**TOMATO juice**

100% NATURAL PRODUCT!

Note that fresh tomato pulp can fall down, so the upper part of the juice becomes lighter - a confirmation of naturalness of tomato juice.

Tomato juice improves removable processes, is rich in vitamins, salts, minerals and protects cells from damage, stimulates the formation of connective tissue, increases the synthesis of hormones, restores the activity of the nervous system, promotes making of gastric juice, improves the heart, contains a lot of potassium, a dietary product.

Effect: Antibacterial, anti-inflammatory, vascular cordial, diuretic.

Restrictions: gallstone disease in which you should limit the receiving of juice.

**CHERRY juice**

100% NATURAL PRODUCT!

Cherry juice improves blood composition, strengthens vascular walls, relieves inflammation, rejuvenates the body, improves removable process, improves appetite, is used as expectorant.

Effect: regulating the activity of the gastrointestinal tract.

Restriction: In case of gastric ulcer and elevated acidity is better not to use.

**PEACH juice**

100% NATURAL PRODUCT!

Note that the pulp of fresh peaches can fall down, so the upper part of the juice becomes lighter - a confirmation of naturalness of the peach juice.

Peach juice improves digestion. It's recommended for arrhythmia, anaemia, it has calming effect on stomach with intensification of gastritis and other diseases. Vitamins contained in it, help the body adapt to the adverse external conditions.

**DOGROSE juice**

100% NATURAL PRODUCT!





Dogrose juice especially in large quantities provides vitamins - C, helps in the decomposition of salts, their removal from the body, used in kidney and chronic lung diseases, strengthens the immune system.

#### **RASPBERRY juice**

100% NATURAL PRODUCT!

Raspberry juice contains a large number of group vitamins, especially vitamin rich - C. What helps the body fight the severe environment. Enhances immune system, recommended for respiratory diseases.

#### **CORNEL (DOGWOOD) juice**

100% NATURAL PRODUCT!

Cornel (dogwood) juice improves blood composition, strengthens vascular walls, relieves inflammation, rejuvenates the body, improves removable process, improves appetite, is used as expectorant.

Restriction: In case of gastric ulcer and increased acidity is better not to use.

#### **POMEGRANATE juice**

100% NATURAL PRODUCT!

Pomegranate juice stimulates appetite, is recommended for cardio - vascular diseases. Used as a recreation stuff and improves the recovery processes in the body after illness and surgery.

Effect: strengthens blood vessels, purifies the organism.

#### **APPLE juice**

100% NATURAL PRODUCT!

Apple juice strengthens the cardio - vascular system and stimulates mental activity, removes from the body salts of heavy metals. Cleanses the body of toxins, improves the respiratory system. In apple juice contains pectin, acids, promoting digestion. Juice increases resistance to colds and infectious diseases.

Effect: vascular strengthening, purifying.

#### **GRAPE juice**

100% NATURAL PRODUCT!

Grape juice - one of the most important and most valuable in the food and dietary component for power . The main grape juice sugar - glucose and fructose - absorbed by the body itself. Malic and tartaric acids are responsible for the diuretic properties of the juice. It is also very valuable is the presence in the juice of grapes biologically active substances and vitamins. Due to the large amount of potassium grape juice, like grape, is useful for people who are prone to cardiovascular diseases.

## **PRESERVES**

#### **Adjika green**

Adjika green, 190 g, environmentally pure 100% natural product without preservatives. The product is made by the old Georgia recipe from selected varieties of sweet pepper and chilli peppers with the addition of aromatic spices. Used as a seasoning for meat dishes. Ingredients: bitter pepper, sweet pepper, salt, spices.

#### **Adjika red**

Adjika red, 190 g, environmentally pure 100% natural product without preservatives. The product is made by the old Georgia recipe from selected varieties of sweet pepper and chilli



peppers with the addition of aromatic spices. Used as a seasoning for meat dishes.  
Ingredients: bitter pepper, sweet pepper, salt, spices.

### **Carrot Salad**

Carrots contain vitamins B, PP, C, E, K, carotene present in it - a substance that is converted in the body into vitamin A. Carrots contain 1.3 % protein, 7% carbohydrates. Quite a few in carrots minerals necessary for human body : potassium, iron, phosphorus, magnesium, cobalt, copper, iodine, zinc, chromium, nickel, fluorine, etc. carrots contain essential oils that make it a unique smell.

Carrots contain beta carotene, which improves lung function . Beta- carotene is a precursor of vitamin A. Getting in the human body carotene is converted to vitamin A. Also, the healing properties of carrots are associated with the strengthening of the retina. People who suffer from myopia, conjunctivitis, blepharitis, night blindness and fatigue use of this product in food is highly desirable.

## **SAUCES**

### **Adjika red (extra)**

Environmentally pure 100% natural product without preservatives.

The product is made by the old Georgia recipe from selected varieties of sweet pepper, chilli peppers and tomatoes with the addition of aromatic spices. Used as a seasoning for meat dishes.

Ingredients: tomatoes, bitter pepper, sweet pepper, salt, spices.

### **Narsharab**

Pomegranate Sauce "Narsharab", 450 g, 100% environmentally friendly natural product.

The product is made by the old Georgian recipe from selected varieties of garnet. Sauce "Narsharab" retains all the benefits of pomegranate juice, with the original and has a mild taste. Pomegranate Sauce "Narsharab" makes an unforgettable taste of meat and fish dishes, but is particularly well suited to the barbecue, and sturgeon.

### **Tkemali red classic**

Tkemali cherry plum sauce red classic, 330 g. environmentally pure 100% natural product.

The product is made from selected varieties of wild plums (Tkemali), fresh greens (parsley, cilantro, dill), garlic, aromatic spices by the ancient Georgian recipe. Appetizing, nutritious, great tasting of "Tkemali" perfect taste all the dishes of beef, lamb, pork and chicken, as well as fish dishes. Especially dressing adds wonderful flavour chops and steaks, fried potatoes and various salads.

### **Tkemali spicy red**

Tkemali cherry plum sauce spicy red, 330 g. environmentally pure 100% natural product.

The product is made from selected varieties of wild plums (Tkemali), fresh greens (parsley, cilantro, dill), garlic, aromatic spices by the ancient Georgian recipe. Appetizing, nutritious, great tasting of "Tkemali" perfect taste all the dishes of beef, lamb, pork and chicken, as well as fish dishes. Especially dressing adds wonderful flavour chops and steaks, and fried potatoes and various salads.

### **Tkemali hot red**

Tkemali cherry plum sauce hot red, 330 g. environmentally pure 100% natural product. The product is made from selected varieties of wild plums (Tkemali), fresh greens (parsley, cilantro, dill), garlic, aromatic spices with the addition of Georgian hot pepper by the old Georgia recipe. Appetizing, nutritious, great tasting of "Tkemali" perfect taste all the dishes of beef, lamb, pork and chicken, as well as fish dishes. Especially dressing adds wonderful flavour chops and steaks, and fried potatoes and various salads.



***Tkemali green classic***

Tkemali cherry plum sauce green classic, 330 g. environmentally pure 100% natural product.

The product is made from selected varieties of wild plums (Tkemali), fresh greens (parsley, cilantro, dill), garlic, aromatic spices by the ancient Georgian recipe. Appetizing, nutritious, great tasting of "Tkemali" perfect taste all the dishes of beef, lamb, pork and chicken, as well as fish dishes. Especially dressing adds wonderful flavour chops and steaks, and fried potatoes and various salads.

***Tkemali spicy green***

Tkemali cherry plum sauce spicy green, 330 g. environmentally pure 100% natural product.

The product is made from selected varieties of wild plums (Tkemali), fresh greens (parsley, cilantro, dill), garlic, aromatic spices of ancient Georgian recipe. Appetizing, nutritious, great tasting of "Tkemali" perfect taste all the dishes of beef, lamb, pork and chicken, as well as fish dishes. Especially dressing adds wonderful flavour chops and steaks, and fried potatoes and various salads.

***Tkemali hot green***

Tkemali cherry plum sauce hot green, 330 g. environmentally pure 100% natural product.

The product is made from selected varieties of wild plums (Tkemali), fresh greens (parsley, cilantro, dill), garlic, aromatic spices with the addition of Georgian hot pepper by the old Georgian recipe. Appetizing, nutritious, great tasting of "Tkemali" perfect taste all the dishes of beef, lamb, pork and chicken, as well as fish dishes. Especially dressing adds wonderful flavour chops and steaks, and fried potatoes and various salads.

***Tkemali yellow classic***

Tkemali cherry plum sauce yellow classic, 330 g. environmentally pure 100% natural product.

The product is made from selected varieties of wild plums (Tkemali), fresh greens (parsley, cilantro, dill), garlic, aromatic spices of ancient Georgian Georgian recipe. Appetizing, nutritious, great tasting of "Tkemali" perfect taste all the dishes of beef, lamb, pork and chicken, as well as fish dishes. Especially dressing adds wonderful flavour chops and steaks, and fried potatoes and various salads.

***Tkemali spicy yellow***

Tkemali cherry plum sauce spicy yellow, 330 g. environmentally pure 100% natural product.

The product is made from selected varieties of wild plums (Tkemali), fresh greens (parsley, cilantro, dill), garlic, aromatic spices of ancient Georgian Georgian recipe. Appetizing, nutritious, great tasting of "Tkemali" perfect taste all the dishes of beef, lamb, pork and chicken, as well as fish dishes. Especially dressing adds wonderful flavour chops and steaks, and fried potatoes and various salads.

***Tkemali hot yellow***

Tkemali cherry plum sauce hot yellow, 330 g. environmentally pure 100% natural product.

The product is made from selected varieties of wild plums (Tkemali), fresh greens (parsley, cilantro, and dill), garlic, aromatic spices with the addition of Georgian hot pepper by the old Georgian recipe. Appetizing, nutritious, great tasting of "Tkemali" perfect taste all the dishes of beef, lamb, pork and chicken, as well as fish dishes. Especially dressing adds wonderful flavour chops and steaks, and fried potatoes and various salads

***Satsebeli classic red***

Satsebeli classic red, 330 g. environmentally pure 100% natural product without preservatives.

The product is made from selected varieties of tomatoes, fresh greens (parsley, coriander, dill), fragrant spices by the old Georgian recipe. Used as a sauce or condiment to meat and fish dishes. Contains vitamins and minerals.

Ingredients: tomatoes, sugar, garlic, salt, pepper and spices



**Satsebeli spicy red**

Satsebeli spicy red, 330 g. environmentally pure 100% natural product without preservatives.

The product is made from selected varieties of tomatoes, fresh greens (parsley, coriander, dill), fragrant spices by the old Georgian recipe. Used as a sauce or condiment to meat and fish dishes. Contains vitamins and minerals.

Ingredients: tomatoes, sugar, garlic, salt, pepper and spices.

**Satsebeli hot red**

Satsebeli hot red, 330 g. environmentally pure 100% natural product without preservatives.

The product is made from selected varieties of tomatoes, fresh greens (parsley, coriander and dill), fragrant spices by the old Georgian recipe. Used as a sauce or condiment to meat and fish dishes. Contains vitamins and minerals.

Ingredients: tomatoes, sugar, garlic, salt, pepper and spices.

**Satsebeli classic red**

Satsebeli classic red, 230 g. environmentally pure 100% natural product without preservatives.

The product is made from selected varieties of tomatoes, fresh greens (parsley, coriander, dill), fragrant spices by the old Georgian recipe. Used as a sauce or condiment to meat and fish dishes. Contains vitamins and minerals.

Ingredients: tomatoes, sugar, garlic, salt, pepper and spices.

## 4.6. Tourist Services

The Travel Agency Global Longevity Tour with pleasure will provide you unique rest in Georgia, unforgettable positive emotion and impressions. Together with our creative and qualified company you will penetrate in History and Traditions of Georgia. We will fully provide to you unique emotional days in Georgia which always will remain in your heart.

**About Batumi**

There are cities on Earth, having been in which, forever you leave there a piece of your heart, where you feel light and peaceful. One of these cities is Batumi, the land of the generous sun and tender sea, the city of smiles, filled with the aroma of coffee and smoke from kebabs, the fragrance of roses and the smell of tangerine, bringing the gaze to the raging colors of the subtropics at any time of the year. It is warm here, here are the best beaches of Georgia, here are hotels and resort atmosphere.

Batumi is the capital and tourist center of the Autonomous Republic of Ajara, on the Black Sea coast. The city is located in the Kahaber lowland, 2-3 meters from sea level. The shape of the lowland resembles a crescent, which stretches for 7 km from north to west. The main part of Batumi is adjacent to the Batumi Bay, in the northern part of the Kakhabr lowland, along the Bartskhana and Korolistkali rivers. The total area of the city is 19 km. sq.

The annual rainfall in Batumi is 2,131 mm. October is the wettest month (272 mm), May is the driest (77 mm). Batumi, as well as the whole coastal Ajara, is notable for its humid subtropical climate and high thermal regime. Usually there is almost no snow in Batumi (snow lasts no more than 12 days a year). The average level of relative humidity is 70-80%.

It often rains in Batumi, but just such a changeable weather creates the unique appearance of this city and its charming rainy-sunny image.

The history of Batumi goes back centuries. The tales of Apolonius of Rhodes, Pliny, Xenophon contain information about the settlements that existed in the place of modern Batumi. This fact





suggests that even in ancient times the peninsula on which the city was located was the “gateway to the sea”, served as an important strategic object. The name "Batumi" was transformed from the Greek "Batiys Lyman" - a deep haven. Over time, the city on the peninsula became the cradle of a new culture, merging together the ancient Colchian and ancient trends.

If you look at Batumi from the board of the ship, you will see a landscape that strikes your imagination. The modern architecture of the coastline is harmoniously combined with the colorful buildings that make up the private sector.

The old part of the city today is decorated with buildings erected more than 150 years ago. Here, European and Oriental architectural styles are perfectly combined, giving the city a certain charm and unique character.

Excursion "Old and New Batumi" is a fascinating auto-walk through Batumi, allowing you to get in touch with the history and culture of Ajara, visit the Archaeological Museum, where unique exhibits are collected, the Nobel Brothers Technological Museum, where the history of the world's first oil pipeline and the history of Porto Franco are stored, local manufactory, history of tobacco and tea.

The uniqueness of Batumi is also in the fact that it is built according to the Roman layout. Parallel streets, it is clearly divided into squares, which greatly facilitates the orientation in the city. And since the numbering of all the streets starts from the sea, it's impossible to get lost in this city.

Among the attractions of Batumi is the seaside park, which is considered to be the favorite place of Batumi residents and guests of the city for recreation and entertainment.

Ardagan Lake adjoins the “new” boulevard. With the improvement of the park, the lake became more attractive, it gradually became a modern recreation center: a number of works were carried out to expand and improve the area around the lake; two artificial islands were created on the lake; The main attractions of the city. Cafe bars, a hotel and a sports and fitness complex have been built on the territory of the lake.

In Batumi, many denominations are represented. The majority of the population of the city professes Orthodoxy. Major confessions: Islam, Catholicism, Armenian Apostolic Church, Yezidism and Judaism. The city has the following churches: Orthodox: the Cathedral of the Blessed Virgin Mary (1903), the Church of St. Barbara (1888) and the Greek Church of St. Nicholas (1865). Until 1936, the cathedral of Alexander Nevsky operated in the city.

Catholic Church of the Holy Spirit

Batumi Mosque "Orta-Jame" (1866)

SurbPrkich Armenian Church (1885)

Batumi synagogue (1904)

Batumi Botanical Garden is located at a distance of 9 kilometers from the city of Batumi.

It is located on an area of 112.5 hectares near the railway station Zeleny Mys (in the village of Mtsvane Konktsi). It was one of the largest botanical gardens. It was founded by the Russian botanist and geographer Andrey Nikolayevich Krasnov in 1880 and was officially opened on November 3, 1912. The Batumi Botanical Garden has no analogues in the world, in the sense that plant species co-exist here, taken from completely different climatic and landscape zones. Strangely enough, both the Canarian date palm and the Japanese sakura got accustomed here equally well. In the garden there are thousands of varieties of plants of amazing beauty.

MORE INFO: <http://www.upanduptour.com/>

## 4.7. Mining

Global Longevity's experience in this field has helped us build partnerships with leading equipment manufacturers and technology companies, which will allow us to successfully and profitably help our customers to carry out mining operations in the future.

Why Georgia? One of the most crypto friendly countries in the world.

Strategically located at the crossroads of trade and commerce between East and West, Georgia is ideally positioned to access markets of Asia, Middle East, as well as Europe and the CIS countries. Nowadays Georgia is quickly adopting blockchain technologies, it is the first country to secure land titles on the Bitcoin blockchain, there are around 60 thousand ATM's where you can buy BTC and other major cryptocurrencies. There has been a rapid rise in producing Hydropower energy, which resulted in one of the most competitive electricity prices as cheap as \$0.05 KW/h. The low energy price encouraged people to start mining in Georgia and the country quickly became one of the biggest producers of Bitcoin.

Based in Georgia, BitFury is a company known for being one of the largest players in the Bitcoin mining business segment – developing and selling efficiency streaming hardware to Bitcoin users and businesses. Bitfury is one of leading full service Blockchain technology companies and one of the largest private infrastructure providers in the Blockchain ecosystem. As such, as of 2016, BitFury was mining about 15% of all bitcoins.

Georgia is one of the leaders in its region in introducing innovative technologies and digital currencies, it appears in the latest report of the World Bank, entitled "Cryptocurrencies and blockchain: Economic Report on Europe and Central Asia 2018"

Economic growth in the countries of Europe and Central Asia is at its peak, reaching 2.7% last year and already 2.3% this year. According to the report, such states as Georgia can use new digital technologies to improve various services and modernize financial processes.

"Many countries in Europe and Central Asia have shown themselves to be favorable for the development of cryptocurrency and blockchain technology. In Georgia, for example, the mining of electronic currencies is a fairly common occupation. This is largely due to tax breaks and the low cost of electricity," said H. Timmer, chief economist at the World Bank.

For several years now, Georgia has been tipped to the world mining centers as a country with low electricity tariffs. Like many things in the Caucasus, there are many unexplainable things in mining in Georgia. In particular, it is not clear why the main mining centers are Tbilisi and Gori, while, logically, the second center should have been the second largest city - Kutaisi, next to which is the Rion hydropower station. In general, despite the fact that the Georgian hydropower plants are in dire need of modernization, hydropower resources due to the relief of the country and the height differences between the mountain east and south of the country and the western Colchis lowland are enough.

MORE INFO: <http://tfz.ge/>

## 4.8. ICO-Promotion

One can achieve all the goals successfully only when the professional skills are properly combined. Every member of our team is a skilled professional, who concentrates on the scope.

This approach allows to:

- develop the skills and support a professional growth of each colleague to maximum effect;

- improve the quality of work essentially;
- be the top of the work.

Efficient work on any project depends on the efforts of various masters of the team, so let us introduce you the staff, capable of bringing to life all your ideas.

### ***Experts***

#### ***Editors***

Work of the editor is not only a filigree arrangement of words, but also putting heart and soul into a text. Namely thanks to his work all the information, accompanying the project, gets a due public response. Work with ICO, cryptocurrencies and blockchain projects need special skills, which our editors obtained, having a vast experience in media support of many currently popular projects.

#### ***Illustrators***

Illustrations help the readers to get visual reinforcement of information, that allows to make it simple and available as much as possible. One can create illustrations only under the full penetration into the task specifics. The best proof of such approach can be successful works of our illustrators, either of which is a piece of art.

#### ***Graphic designers***

Style is rather important and helps to make an image easy to remember. Its selection and realization is a job for a professional, capable of getting a good look at all the features of a project and bringing them into the whole image. Graphic designers work on the development of promotional leaflets, presentations and other materials, that make up a total image of a project together.

#### ***Web designers***

Tasks: evaluation of purposes and reasons of site users; design and planning of site structure; interface design; browsing design; user interaction support; content arrangement and its quality control.

#### ***Lawyers***

Protection of legal issues, as well as drawing up all the edges of the project with a clear adherence to the position of the law, is the guarantor of project safety. The complexity of solving issues in a given sector is associated with an active change in the regulatory sphere of projects on the detachment, which can already be deduced as a separate area of jurisprudence.

#### ***IT technicians***

Total IT support: technical presentation of a project, development of its components, maintenance of analytics and many other tasks, necessary for achieving the goals.

#### ***Marketing experts***

Marketing expert is responsible for advertising image of a project, promotional techniques, based on the project's features, and many other tasks, aimed at the growth in popularity. One more point is to make up a road map, targeted at the best results.

#### ***Blockchain designers***

Development of a blockchain-based project needs expertise. For task solution it is required to involve the designers, who can put the boldest ideas into the strict technical framework. Our developers have rich experience in design of various blockchain-based projects, and they can become a key to success for you.

#### ***SMM experts***

Promotion via social media is an important part of project making, and this is a job for SMM experts. Their tasks are selection of promotion channels, targeting and other types of advertising, making up and editing of content, keeping of publics, etc. Work of SMM experts is like a bridge between

a prospective user and a project.

#### *SEO experts*

Proper promotion, work with search services, creating of site core, content optimization under the target requests as well as publicity of a project and search of prospective users through the target channels are in the scope of tasks for SEO experts. A prominent SEO expert will provide your project with efficient promotion.

#### *Programmers*

Development, realization and capability support of the project's software is the main scope of programmers. They combine the project's idea with the possibilities of technical performance. A unique solution will be found for every task, and that is due to a vast experience and unconventional approach to the implementation of ideas.

The scope of tasks for SEO experts. A prominent SEO expert will provide your project with efficient promotion.

#### *Project managers*

Project manager can be compared with a pilot, who is responsible for good heading, correct operation of all necessary systems and controls the efficiency of actions. His job is a full control over the project, and due to that the team can see the directions for further growth.

#### *Copywriters*

Copywriters deal with making of entertaining, educational, informational and other types of content, its efficient design and publication in order to gain public responses as much as possible. Working with our copywriters, you will get the best result: from proper selection of information to its filigree design.

#### *Journalists*

Work of journalists includes search, organization of information, unique interviews and many other things. They are responsible for creation of an efficient, interesting material, capable of achieving the goal from first lines.

## 5. TOKEN DISTRIBUTION

Absolutely the entire volume of issued tokens is fully provided with goods and services that are provided in our Global Longevity Market even if the cost of 1 Longevity (0,00001 ETH) is equal to 0,001 ETH. Thus, today the initial growth potential of the token is 9900%.

**Name:** LONGEVITY

**Ticker:** LGV

**Type:** ERC-20

**Platform:** Ethereum

**Token Type:** Utility

**Token Price:** 0,00001 ETH

**Soft Cap:** none

**Hard Cap:** 1.000.000 LONGEVITY

**Unsold Tokens:** hold for future membership

**Return on Invest:** long-term token value increase

**Purchase methods accepted:** All Leading Crypto and Fiat



**Total token supply:** 100.000.000.000 LONGEVITY

**Private-sale & Public Sale:** 89.000.000.000 LONGEVITY

**Team:** 5.000.000.000 LONGEVITY

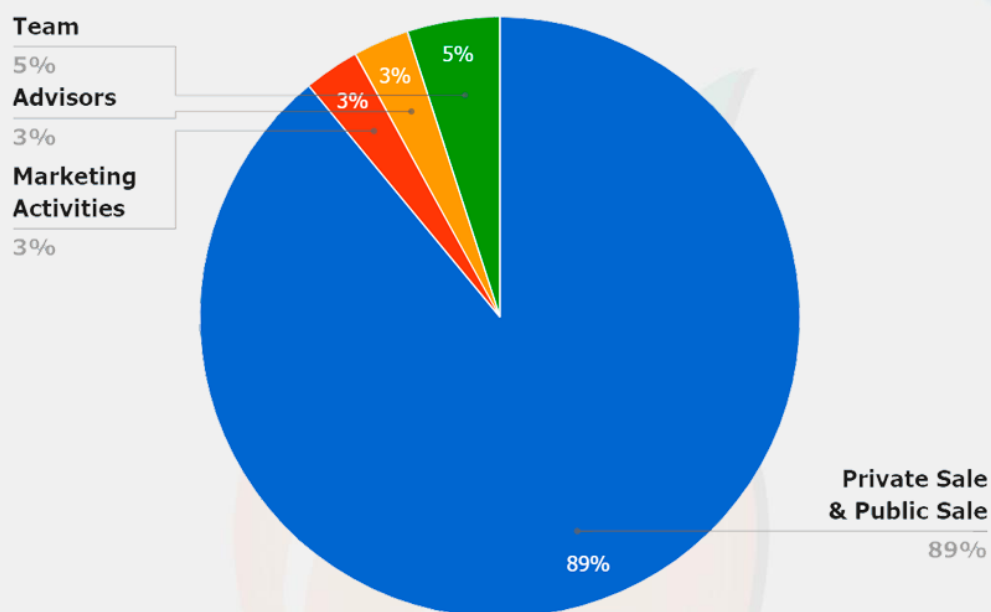
**Advisors:** 3.000.000.000 LONGEVITY

**Marketing Activities and Bounty:** 3.000.000.000 LONGEVITY

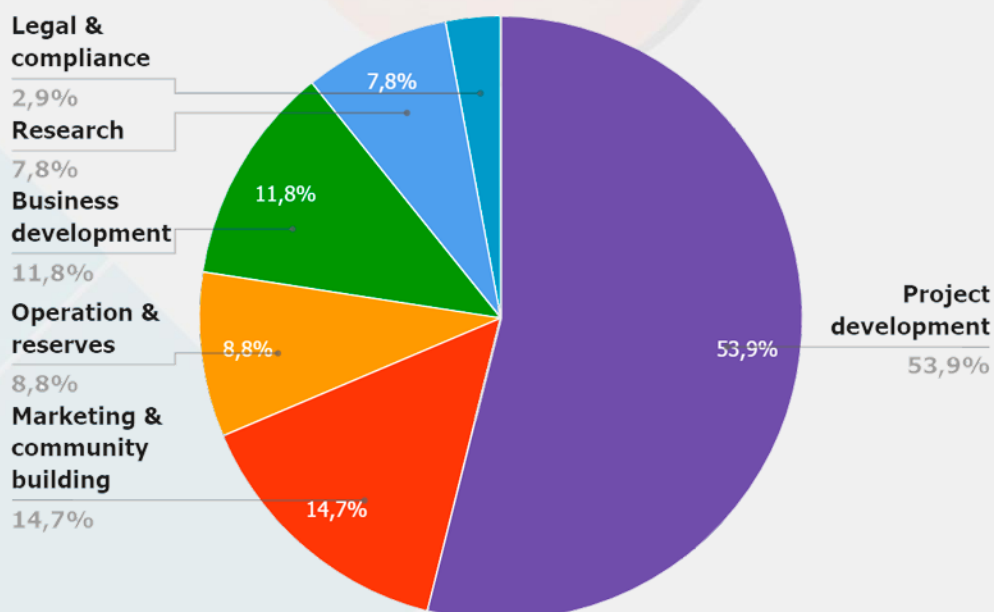
#### Notes:

- Team's token will be locked for 30 months after the Private-sale & Public Sale
- Tokens for Marketing team and Bounty will be locked for 6 months after the Private-sale & Public Sale

#### PERCENTAGE OF TOKENS DISTRIBUTION



#### ALLOCATING AND USING FUNDS



**Investor Exclusions:** Afghanistan, Angola, Aruba, Australia, Bangladesh, Belarus, Benin, Bhutan, Bolivia, Botswana, Brunei Darussalam, Burkina Faso, Bosnia, Burundi, Cambodia, Cameroon, Canada, Cape Verde, Central Africa republic, Chad, China, Comoros, Congo, Congo Democratic republic, Cuba, Cote d'Ivoire, Djibouti, Dominica, Ecuador, El Salvador, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guatemala, Guyana, Guinea, Guinea Bissau, Haiti, Honduras, Iran, Iraq, Japan, Jordan, Kenya, Kyrgyz Republic, Laos, People's Republic, Lesotho, Liberia, Libya, Madagascar, Malawi, Mali, Mauritania, Micronesia, Moldova, Mongolia, Mozambique, Myanmar, Nauru, Nepal, New Caledonia, Nicaragua, Niger, Nigeria, Niue, North Korea, Oman, Pakistan, Palestinian Areas, Papua New Guinea, Republic of Korea, Reunion, Rwanda, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, Somalia, South Georgia, Sudan, Sri Lanka, Suriname, Syria, Swaziland, Tajikistan, Tanzania, Timor, Togo, Tonga, Tunisia, Turkmenistan, Uganda, United States, Uzbekistan, Venezuela, Western Sahara, Yemen, Zambia

Longevity tokens represent a cryptographic algorithm in a decentralized, distributed database (blockchain). In accordance with the legal documentation of the Global Longevity project, the Longevity token constitutes a type of contract.

Based on the principle of freedom of contract, we can conclude that the Longevity token is in its legal nature closest to the notion of a contract to for the purchase of goods to be produced in the future. Tokens of this kind are characterised as Utility tokens. Most jurisdictions do not currently have special legal regulation regarding Utility tokens.

Longevity tokens cannot be categorized as money (cash or non-cash), as they are not considered "legal means of payment" under the legislation of any jurisdiction, nor are they considered to have currency value (as foreign currencies or external securities) in accordance with the legislation of any jurisdiction.

Longevity tokens may also not be categorized as book-entry securities, the legal status of which is regulated under the legislation of any jurisdiction, because book-entry securities, as a rule, are only "obligation and other rights which are established in the decision to issue, or other act of a person issuing securities in compliance with the requirements of the law, and the exercise and transfer of which is only possible in compliance with the accounting rules of these rights," while tokens, at the time of issuance, do not provide any specific obligation or other rights, and are not registered.

The rights and responsibilities of owners of Longevity tokens are set out in the provisions of the Terms & Conditions and in the Token Sale Agreement, and contain the right of token buyers to exchange Longevity tokens for goods produced in the future, or for equivalent monetary compensation. Furthermore, any relationships formed between organizers of the Global Longevity project and buyers of Longevity tokens are subject to consumer rights protection legislation, which further indicates that the Longevity token constitutes a contract for the purchase of goods to be produced in the future.

It should also be noted that Longevity tokens are primarily intended to be used within the bounds of the Global Longevity project. Should the token buyer use Longevity tokens outside of the system in which they are placed, he would do so on his own initiative and by means other than those expressly provided for in the Terms & Conditions and the Token Sale Agreement. With this in mind, we may conclude that Longevity tokens constitute Utility tokens in the form of a contract for the purchase of goods to be produced in the future.



## 6. ICO STAGES



## 7. ROADMAP



## 8. TEAM



**IURI NAZAROV,**  
CEO (Chief Executive Officer), CEO Global Longevity Metavers



**DENYS MATSEPLIUK, CIO (Chief Information Officer)**

IT manager, information technology director, responsible for the acquisition and implementation of new technologies, information resources management.



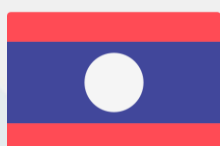
**JĪNLÓNG XIÀNG, CLO (Chief Legal Officer)**

Manager of legal informatization, director of legislative technologies. Advisor to the corporation, executive of the highest rank, responsible for the legal support of contracts, expert in cryptocurrency legislation.



**CHAMP JANADAR, CMO (Chief Marketing Officer)**

Consultant in marketing and marketing strategy of the enterprise, manages the work of the marketing service of the enterprise.



**GUĀNGMÍNG BŌ,**

One of the leaders of the travel direction of the corporation, responsible for its development and development of new tourism products.



**SOEHARTO LEE**  
Professor of Medicine,  
Longevity Technology  
Expert



**LIU JUAN**  
Professor of Medicine



**DEEPAKA ABESEKARA**  
Doctor of Medicine



**JOAQUIM SILVA**  
Doctor of Medicine



**ALBERTO RODRIGUEZ**  
Doctor of Medicine







**METIN OZTURK**  
Doctor of Medicine



**PETER WOLLY**  
Doctor of Medicine



**DIEGO MARTINEZ**  
Doctor of Medicine



**RAJ AHIRWAR**  
Doctor of Medicine



**LUONG NGUYEN**  
Doctor of Medicine



**MARIA VICTORIA  
ROJAS**  
Doctor of Medicine



**ADISA NGCOBA**  
Doctor of Medicine



**TERESA GUEVARA**  
Doctor of Medicine



**TAN YEE POH**  
Doctor of Medicine



**NADIA JIMENEZ**  
Doctor of Medicine



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Potentially interested parties should note that participation in the Global Longevity project is subject to limitations imposed by applicable securities laws in various jurisdictions.

Potential investors should note that participation in the Global Longevity Sale is subject to limitations imposed by applicable securities laws in various jurisdictions. The following does neither constitute an offer to buy or to subscribe for the Potentially interested parties should note that participation in the Global Longevity project is subject to limitations imposed by applicable securities laws in various jurisdictions.

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