



SUPER FOODS

A Day, A Life, The Plan

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Superfood Pleasures

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PREFACE

Gone are the days when I felt the need to starve myself, or to spend countless hours in the gym working out far too hard and for far too long in order to be satisfied with my appearance. At the age of 21, I tried the Atkins diet for a period of three months. The results were undeniable. At 75kg (165 pounds), I was lean and muscular and had finally achieved a prominent 'eight-pack'. This however was not sustainable and not free of repercussions. I was moody, grumpy, lethargic, and fundamentally an unhappy person with a short fuse. When it became evident that my change in behaviour was directly linked to my unhealthy diet, I stopped following the Atkins Diet philosophies and began to invest my energy in more balanced and healthy approaches. Shifting my focus to the taste and nutritional value of the food I was consuming helped me to regain control of body and mind.

In search of further education, I studied fitness and became a gym instructor. I persisted with this endeavour for two years before becoming so disheartened by the lack of drive and motivation displayed by my clients that I decided to move on. Ultimately this was an unsuccessful pursuit, but the experience I gained was invaluable and it reaffirmed my belief that I should continue to strive to attain the results I was so committed to achieving.

Whilst undertaking a degree in Medical Sciences, I was plagued by thoughts and questions around the general maintenance of my body. I wanted to know what I could do to ensure that my cholesterol levels remained at an optimum level, how I could ensure I never suffer from diabetes and other lifestyle diseases, and how I might achieve a healthy balance in life overall. The answer was startling in its simplicity.

I became a fervent reader of medical journals, devouring all the latest research and advancements in the field of health and nutrition. Studying the Mediterranean Diet served to remind me that the fundamental principle of 'you are what you eat' is integral to the success of a health-centric goal. This principle remained a motto of mine—a mantra of sorts—from my high school years until adulthood. It encouraged the belief that there must be an easier way to overcome the obstacles one encounters when embarking on achieving a healthy lifestyle. And, sure enough, there is. Incorporating small doses of a superfood into your diet by adding them to every meal you eat. It's as simple as that. Slowly, but surely, your body and mind will reap the rewards and benefits of what these foods have to offer.

After 17 years of research, experience and experimentation, I can assert that it is indeed possible to achieve your fitness goal without punishing yourself with excessive exercise or depriving yourself of the food you enjoy. Sharing this knowledge with people that have had a similar struggle to mine was the driving force behind this book.

Introduction

The health benefits of the food we consume daily are, no doubt, enormous. Almost on a daily basis we hear of new research and findings on the effects of certain foods. Noncommunicable diseases remain the top causes of death the world over and all of them are related, to a certain degree, to our eating habits. Cardiovascular diseases, cancer and diabetes are three of the four most common non-communicable diseases, in which long term diet is a strong influencer. Along with those are many other diseases that affect the immune system; the vast majority of which are communicable. The latest studies in this field show that the rate of ischemic heart disease and stroke is much higher in high income countries than in low income countries. This clearly indicates that people are unaware of the healthier food option for them, even though are within reach. These diseases are a consequence of an energy-dense diet, with excessive consumption of sugar, salt, fat, preservatives, pesticides, etc., but with a serious lack of vitamins, minerals, antioxidants and other essential nutrients.

Although the food and agribusiness industries have contributed to these unhealthy eating habits by offering products that are cheaper, stronger flavored and more readily available. Luckily we live in a time when all the information we need is at our fingertips and can be accessed in moments with a few clicks of a button. The internet and its shopping capabilities give us a huge advantage when choosing healthy foods because if a product is not at your local supermarket, you can just order it in.

We understand there would be many questions around this topic like why do I need these foods incorporated in my diet? What will it cost to incorporate such foods into my diet? Should I use every super food listed in this eBook? Should I buy Superfoods that organic and or from sustainable farming? Will using a Superfood(s) enable me to live longer? Why the craze about Superfood's? Are Superfoods really that nutritional?

Incorporating Superfood(s) into your daily eating habits does not mean your dieting, detoxing or cleansing, it's just a way of life, a way to better living for health and prosperity, fine tuning that engine that runs us all, to have an abundance of energy, to feel vitality and stronger immunity in your everyday activities.

Eating Superfoods or incorporating them in your diet will increase your levels of energy, will adjust and control your mood swings, increase libido in some instances and provides that overall feeling of wellness, without slight changes in your diet, for the better, it will be unlikely that change will happen tomorrow. Enjoying nutritional content in every meal you eat will deliver change for tomorrow, start feeling immediately, drop the sugars and fats out of your diet and incorporate superfoods in your diet today.

What is even more important is what is beginning to happen inside of your body. The improved energy levels are not temporary. As you keep eating with a high emphasis on superfoods and quality you will notice you feel energetic almost constantly. You will experience less frequent colds, allergy symptoms, and you can be fighting against cancer, heart disease, and even the onset of Alzheimer's disease.

Some say there is five superfoods some say there are ten superfoods, in this eBook we've listed the majority of superfoods and their benefits, so that you are able to have a variety of choices to pick when creating your meals.

The reading ahead will point out the majority of these healthier food options, the ones that will enhance your immune system, load your body with nutrients, clean it from toxins, simply, we will provide a list of foods that will improve your wellbeing.

For more readings we recommend these books

[The Superfoods Cookbook](#)

[Simple Superfoods \(tm\): Top Antiaging Healing Super-foods Product](#)

[Natural Beauty: Ancient Natural Beauty Secrets! - Organic Superfoods, Essential Oils, Natural Remedies, Homeade Beauty](#)

[101 Superfoods That Stop Your Joint Pain & Inflammation](#)

[Superfoods library](#)

[Alkaline Cookbooks & Recipes](#)

[Amazing Benefits of Coconut Oil](#)

What are the building components of superfood?

The food that has high amounts of certain nutrient(s) found to improve general health condition is popularly called a superfood. Implementing such food(s) in significant amounts in the diet has been proven to lower the risk of developing most common diseases related to diet, such as heart disease, diabetes, and cancer, it may also slow the process of aging, loss of vision, flexibility in joints, skin change etc. As an additional benefit superfoods may increase energy, ease digestion, lower headache, and other symptoms commonly encountered by people who do not eat or implement superfood(s) in their diet. In order to get the maximum of this food one should be careful that this food is not combined with some other compound that have been found to have damaging effect to human health, such as sodium, sugar(s), saturated fat, trans fat. Also it is worth mentioning that there are some other components that do not naturally occur in food but may be present along with the food at the time of consumption and they also have been identified as health threatening compounds as possible presence of (too much) pesticides, aflatoxins, bacteria and their toxins, antibiotics, toxins from the process and package etc.. This means that when choosing certain food for better health condition many aspects should be taken in consideration.

Still so far several nutrients have been identified as the ones that help the general health condition and they are phytonutrients, vitamins, minerals and omega-3 fatty acids. Antioxidants are components commonly mentioned as health protective but they can't be analyzed separately as they overlap with all of the previously mentioned nutrients that are found to be beneficial to human health. They react in the process of oxidation where free radicals are formed, compounds that can damage cell walls, cell structure and DNA in the cells. Antioxidants actually stabilize free radical, thus react protective to human body.

When analyzing these nutrients and their presence in food groups it is to be said that they are found in larger amounts in fruits, vegetables, nuts and seeds, and that is why they are most commonly mentioned as superfoods. General conclusion from many health organizations is that increased intake of fruits, vegetables and some grains may reduce development of different cancers (in the oral cavity, esophagus, larynx, stomach, colon, lung, prostate, and rectum). Eating more fruits and vegetables also lowers the risk of developing heart diseases, hypertension, obesity, diabetes and much more. Though there are food products from other food groups that have been mentioned as superfoods, as some whole grains, legumes, cold water fish, cultured dairy products and some herbs and spices. They are not as many as fruits, vegetables, nuts and seeds, but their health beneficial effect is very strong.

Phytonutrients

The term phytonutrients or phytochemicals refers to chemical found in plants. They give the taste, aroma and color of the plant, and even protect the plant from viruses, bacteria, and fungi. So their influence on the human body comes from their primary function, to protect. They have been found to enhance the body's immune system, help in process of vitamin A formation from beta-carotene, reduce inflammation, kill cancer cells, protect the DNA from damage, prevent urinary tract infection and promote antioxidative activity. They are most common subject lately for research in animals and humans, and their list is very long. Phytonutrients connected to certain health benefits are:

-Alicin- found in onions and garlic, is a compound that can eliminate toxins from bacteria or

viruses.

- **Anthocyanins**— typical components of red and blue plants, found to have protective role against heart diseases, tumors, prevent blood clotting, fight inflammations and allergies, and they help the slowing of the aging process.

- **Biflavonoids**— found in citrus fruits, with anti-inflammatory potential.

- **Carotenoids**— found in dark yellow, orange and deep green vegetables as tomatoes, parsley, oranges, pink grapefruit and spinach, proven to have immune enhancing and antioxidant effect.

- **Flavonoids**— found in onions, apples, kale, beans and wine. They mainly promote antioxidant, anti-inflammatory and antibacterial properties.

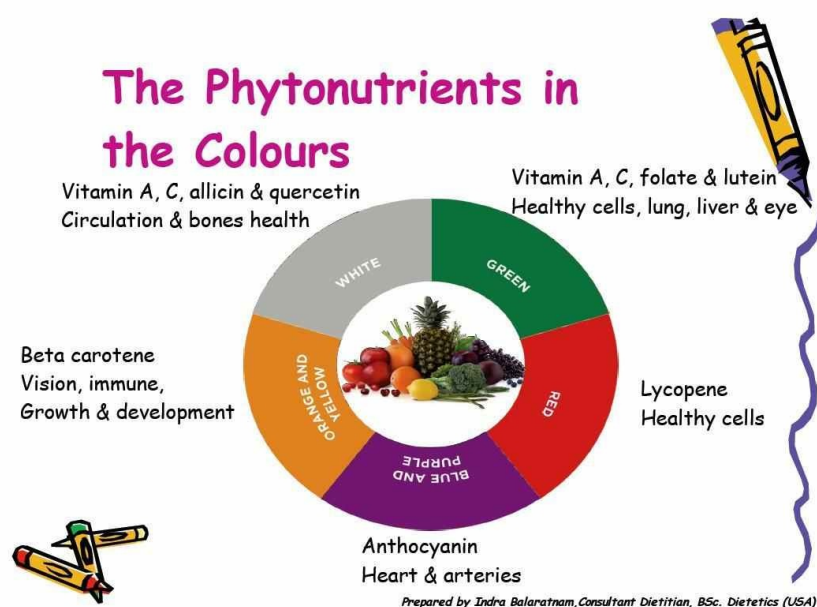
- **Indoles**— compounds that activate the agents that destroy the cancer-causing chemicals. They are found in cruciferous vegetables as broccoli, bok choy, cabbage, kale, Brussel sprouts, and turnips.

- **Isoflavones**— found in soybeans, with potential protective effect on certain cancers.

- **Lignins**— found in flaxseed and whole grains, as a part of dietary fibers. They benefit heart health and act as potential immune enhancers.

- **Lutein**— found in green leafy vegetables, proven to prevent macular degeneration and cataracts as well as reduce the risk of heart disease and breast cancer.

- **Lycopene**— found in tomato and one peculiar interesting compound because it is active after cooking. It is found to reduce the risk of cancer and heart attacks. - **Phenolics**— found in citrus fruits, fruit juices, cereals, legumes, and oilseeds. They have shown many health benefits as slowing the aging process, protecting against heart diseases and tumors, fighting inflammation, allergies and normal blood clot.



Further Readings

[Pharmacy In Vegetables](#)

[How to fight type two diabetes & Win!](#)

[Phytonutrients](#)

Products

[Metagenics - PhytoMulti without Iron 60 Tablets](#)

[Garden of Life Perfect Food Raw Organic Green](#)

Vitamins

These are many times described nutrients for their beneficial effect in human body. We all know about the importance of vitamin C, but vitamin E and beta-carotene are joining the group of essential vitamins for wellness, with high antioxidant potential. They all have specific area in where they act, according to the researcher's state.

- **Vitamin C** (ascorbic acid) has been found to have protective role of developing different cancers as: cancer in the oral cavity, stomach, esophagus, rectum, pancreas, cervix, breast cancer and lung cancer. Fresh fruits and vegetables are the main source of vitamin C, and the ones with the highest amount are oranges, peppers, lemons, strawberries, papaya, broccoli etc.

- **Beta-carotene**, the provitamin of vitamin A, enhances the immunity by affecting the white blood cells, the ones that block cell damaging free radicals. This is the main action by which it is considered to be cancer preventive. Beta-carotene may protect from developing stomach, prostate, lung, breast and head and neck cancer. It is present in green leafy vegetables and yellow to orange fruits. It is converter to vitamin A after consumption of such foods. This is one of the nutrients where the amount consumed is very important for beneficial action, because its positive effect increases to a certain limit, and after this limit it actually acts health damaging. This is especially expressed in risk groups as smokers, where it can even increase the risk of developing cancer. Although this generally refers when taking this provitamin through supplements. Excessive consumption can also change the skin color, and it may turn orange. High content of beta carotene can be found in carrots, squash, collars, spinach and sweet potato. There is no RDA for beta carotene, but there is one for vitamin A.

- **Vitamin E** with its antioxidant power has been found to protect against prostate and colorectal cancer. It has many functions in the human body but most important protective role is the immune enhancing effect, and helping to build normal red blood cells. Food rich in vitamin E are sunflower seeds and oil, almonds, hazelnuts, peanuts, wheat germ, etc. Eating food high in vitamin E is not a risk factor for harmful effect, but supplementation with it, is.

The examples of these vitamins and others that follow, prove that food is still the best source for nutrient intake. Supplementation, especially a long term one can do harm rather than have a positive effect to the general health condition.



Sunflower Seeds

Further readings

Products

[Organic Vitamin C Serum](#)

[Kirkland Signature Daily Multi Vitamins & Minerals Tablets](#)

[VitaFusion MultiVites Gummy Vitamins for Adults](#)

[Optimum Nutrition Opti-Men Multivitamins](#)

[Rainbow Light](#)

[Women's One Multivitamin](#)

-



Minerals

The intake of minerals through food has been signalized numerous times. Minerals have many health beneficial effects, from lowering blood pressure as potassium does, to immune protective role of selenium, zinc, iron and copper. Many of them have also antioxidative effect as copper, manganese, selenium and zinc. Still the most potent mineral for preventing one of the most common diseases - the cancer prevention, is selenium.

-Selenium has protective effect from few cancers, it prevents inflammation and is capable of modulating the immune system. It has been found to prevent the development of colon cancer, prostate and lung cancer. Consuming food such as Brazil nuts, tuna fish, sunflower seeds, salmon, flaxseed, etc. that is high in selenium will help the body fight against these vicious diseases.



Further Readings

[The missing Ingredient for good health](#)

[Smithsonian Handbooks: Rocks & Minerals](#)

[Alkaline Cook book](#)

[Metabolic Cooking - Fat Loss Cookbook](#)

Products

[Morningstar Minerals Energy Boost 70 Mineral Supplement](#)

[Healthforce Vitamineral Green V5.2, Powder](#)

[NUTRILITE® DOUBLE X® Vitamin/ Mineral / Phytonutrient](#)



Mineral Name	Major Functions	Deficiency Effects	Toxicity Effects	Food Sources
Calcium	Makes up bone and teeth; muscle contraction; clotting; nerve function	Children – stunted growth Adults – bone loss (osteoporosis)	Diarrhea, interference with absorption of other minerals	Dairy, fish with bones, tofu, greens, legumes, fortified foods
Chromium	Helps insulin move glucose (sugar) from blood into cells	Abnormal glucose metabolism	Possible muscle degeneration	Meat, whole grains, vegetable oils
Fluoride	Helps make bones and teeth stronger, helps teeth resist decay	Susceptibility to tooth decay	Fluorosis, discolored teeth, nausea, chest pain	Fluoridated water, seafood, tea
Iodine	A component of thyroid hormone – helps regulate growth, development, metabolism	Goiter, cretinism	Low thyroid activity, enlarged thyroid	Iodized salt, seafood, plants grown in iodine-rich soil
Iron	Part of hemoglobin – carries oxygen in blood, myoglobin carries oxygen in muscle	Anemia, weakness, head-aches, reduced immunity, low cold tolerance	Fatigue, infection, liver damage, colon cancer, bloody stools, fatal to kids	Red meats, fish, poultry, eggs, legumes, dried fruit
Magnesium	Mineralization of bones and teeth, helps enzymes function, muscle contraction, nerve transmission	Weakness, muscle twitches, confusion, convulsions, bizarre muscle movements	Confusion, lack of muscle coordination, death (all due to overdose of laxatives, antacids)	Nuts, legumes, whole grains, dark leafy greens, seafood, chocolate/cocoa
Phosphorus	Bones and teeth; DNA; Phospholipids (part of cell membranes)	Weakness, bone pain (Deficiency rare – usually a side effect of medication)	Low blood calcium, increased calcium excretion	All animal tissues (meat, fish, poultry, eggs, milk)
Potassium	Maintains normal fluid and electrolyte balance, assists nerve impulse transmission and muscle contraction	Muscular weakness, paralysis, confusion (due to dehydration)	Muscular weakness, vomiting reflex	All whole foods, fruits, vegetables, grains, meat, milk
Selenium	Antioxidant, works with vitamin E	Keshan disease, muscle pain/degeneration, cataracts, low sperm, fragile red blood cells, heart damage	Nail and hair brittleness and loss, nerve, muscle, liver damage, nausea	Seafoods, organ meats, other meats, grains, veg depending on soil content
Sodium	Maintains normal fluid and electrolyte balance, assists nerve impulse transmission, muscle contraction	Muscle cramps, mental apathy, loss of appetite	Edema, acute hypertension, increased calcium excretion	Table salt, soy sauce, MSG, all processed foods.
Zinc	Part of insulin, helps many enzymes function, DNA repair, taste perception, immune function, wound healing, sperm	Failure to grow (kids), dermatitis, loss of taste, poor healing, sex retardation	Fever, nausea, vomiting, dizziness, uncoordinated, anemia, heart disease	Protein-containing foods, some grains and vegetables

Omega-3

Some essential fatty acids are getting huge attention lately, and one of them is omega-3 fatty acid. Salmon, sardines, herring, and other species of seafood are animal sources of omega 3, but flaxseed, chia, walnuts and soybeans are the plant sources. They include different domination of the fatty acids that belong to these groups, alpha linoleic acid, eicosapentaenoic and docosahexaenoic acid (www.stanford.edu). The plants are rich in ALA, and animal sources in EPA and DHA. These essential acids have different target for action, but it is essential that one consumes them on a daily basis because the body is not capable of producing them on its own. They can prevent form heart diseases by lowering the triglycerides in the blood, also have anti-inflammatory effect, and they are important for development in children and brain function in adults.



Further Readings

[Heart Health Made Easy: How to Lower Blood Pressure & Cholesterol](#)

[The Acid Alkaline Balance Diet, Second Edition: An Innovative Program that Detoxifies Your Body's Acidic Waste to Prevent Disease and Restore Overall Health](#)

[Eicosapentaenoic Acid: Sources](#)

[Health Effects and Role in Disease Prevention \(Biochemistry Research Trends\).](#)

Products

[GLA Gamma Linolenic Acid Concentrate Emulsified Dry 800mg 200 Capsules NOW Foods DHA-500](#)

[Flax seed - Flaxseed CARRIER OIL 100% Pure For Diluting Essential Oil - FLAX SEED OIL - rich source of alpha-linolenic acid - Essential Oil By Oakland Gardens.](#)

Superfoods

For easier explanation of food pyramids or food plates, and for practical reasons in meal planning, foods has been divided in several groups: fruits, vegetables, grains, protein foods, dairy and oils. Further, the superfoods of each group will be mentioned, and there will be detailed information about at least one representative of each group, to get a closer look of their super power.

Vegetables

Vegetables are low in fat and calories, but very high on minerals, vitamins, fibers and phytonutrients. Vegetables as green pepper, broccoli, cabbage and other have high amount of vitamin C, expressing their antioxidative effect. Sweet potatoes, white potatoes, white beans, tomato, soybeans, spinach and others are high in potassium, beneficial for lowering blood pressure and prevention of kidney stones. Dietary fibers improve the feeling of fullness, and together with the low sugar and calorie load of this products, may help in prevention of obesity. Fibers also help proper bowel function, thus they prevent constipation and help the detoxifying process. Along with the phytonutrients present in vegetables overall conclusion is that they may reduce the risk of heart disease, obesity, diabetes and protect form certain types of cancer.

Dark green vegetables and crucifer vegetables have been most commonly mentioned as beneficial on human health, not only because of previously mentioned components (indoles and lutein) but also because of the presence of chlorophyll a compound that has been found to have detox effect, as it attracts and removes damaging chemicals form the body. Most common vegetables mentioned as superfoods form these group are:

- Broccoli
- Romanian lettuce
- Kale
- Spinach
- Collard greens
- Bok Choy
- Swiss chard
- Turnip greens
- Mustard
- Brussel sprouts
- Cabbage
- Beet or Beetroot



Bok Choy



Kale



Spinach



Bok Choy

- Grasses and sprouts have big amount of amino acids, carotenoids, chlorophyll, vitamin C and minerals. (www.ucc.edu, 2014) And the superfoods are:

- Barley grass
- Wheat grass
- Oat grass
- Alfalfa grass
- Broccoli sprouts
- Alfalfa sprouts
- Radish sprouts



Orange and red vegetables are also promoted as superfoods due to the high amount of carotenoids. Beta-carotene is one of the most commonly mentioned antioxidants and also an orange pigment, and is characteristic for orange vegetables. Tomatoes are also in the group of superfoods due to the fact that they are rich in vitamins and carotenoids as lycopene and beta-carotene. Super vegetables form these group are:

- Pumpkin
- Carrot
- Sweet potatoes
- Tomato



Mushrooms are well proven to have strong beneficial effect, and many of them have even been used in traditional medicine. Mushrooms with super immunity enhancing properties are:

- Shitake (*Lentinula edodes*)
- Maitake (*Grifola frondosa*)
- Reishi (*Ganoderma lucidum*)



There have been relatively few direct intervention trials of mushroom consumption in humans, although those that have been completed to date indicate that mushrooms and their extracts are generally well-tolerated with few, if any, side-effects. Immunomodulating and anti-tumor effects of mushrooms and their extracts appear to hold potential health benefits. These benefits are primarily due to their polysaccharide content, either in the form of betaglucans or polysaccharide-protein complexes, which appear to exert their anti-tumorigenic effects by enhancement of cellular immunity via effects on the balance of T helper cell populations and induction of certain interleukins and interferon (IFN) γ . This review summarizes the current knowledge on edible mushrooms and their components on health outcomes, with a focus on the evaluation of the evidence from human trials. Where information is available from such trials, the active compounds are identified and their proposed mechanisms are discussed. (Journal of Functional Foods Vol 4, Issue 4, October 2012 Pages 687-709.)

Legumes are low fat food, but high in plant proteins, and dietary fiber, B vitamins, minerals and phytochemicals. Legumes also have been found to have antioxidant properties. In one study on in vitro animal cells the cancer cell proliferation and cellular antioxidant activity were evaluated on different legumes, along with phytochemicals, radical scavenging activity and other antioxidant parameters. Azuki beans were found to have strongest anti proliferative properties against all digestive system cancer cells, ovary cancer and breast cancer. Black soybeans have been found to have highest amount of phytochemicals as saponins, phytic acid and strongest cellular antioxidant activity. This shows that even legumes have certain phytochemicals that show anti-oxidative and cancer preventive power (Xu and Chang, 2012).

Most commonly mentioned legumes as super foods are the beans: · Adzuki beans

- Black beans
- Pinto beans
- Garbanzo beans
- Kidney beans · Lima beans

- Cannellini beans · Black-eyed peas · Soy beans
- Mesquite

Closer look on beneficial effect of broccoli sprouts and Reishi mushrooms will be given further.



Broccoli sprouts



Broccoli is a part of the cruciferous vegetables known for being rich in several vitamins, antioxidants and glucosinolates. Glucosinolates are phytonutrients that are converted to indoles and isothiocyanides, when digested. These components are known for their cancer protective effect, by direct and indirect action on oxidative stress, and some other pathways (Riso et al., 2014). According to the USDA nutritional database, broccoli has very high content of vitamin C, vitamin K and dietary fiber. Only in 100 g broccoli there is 89 mg of this strong antioxidative vitamin, and the RDA is 60 mg per day.

Broccoli are well known for their health benefit effect, but lately the light is on broccoli sprouts, soon after some excellent research results pointed that out. They even show to be better than the mature plants. In comparison of the amount of different components in broccoli sprouts and mature plant, it was found that there is larger quantity of components that protect against carcinogenesis in broccoli sprouts and smaller amount of components that are tumor promoters, than in mature plants. Greater difference was noted at one certain component - glucoraphanin (one glucosinolate), and it was found that its content was highest in a 3 day old broccoli sprouts, where it was 10 to 100 times greater than in the mature plant (Fahey et al., 1997). Also these sprouts have certain other advantages compared to their mature plants as they are easier to digest because of their abundance of live enzymes, and they only need three to seven days to grow. The bioavailability of broccoli sprouts was even shown to be much higher than the one of broccoli supplements. This conclusion was made by Clarke et al., (2011) after follow-up on the content of metabolites sulforaphane and erucinin 1 month period at 12 subjects.

Sulforaphane actually is one of the most researched isothiocyanates and is known for its cancer fighting properties by inhibiting the growth and spread of cancer cells. It also acts as detox component, thus resulting in inhibition of some cancerous compounds from becoming active. Some good results have been shown in prevention from breast cancer, prostate, cervix and cancer of the bladder. Overall studies show that this component helps the digestive tract protect itself from DNA damage, inflammation and oxidative damage, and acts as antibiotic against *Helicobacter pylori*. Broccoli sprouts may also help lower the LDL cholesterol, and may help improve blood sugar and insulin levels (Bonne, 2013).

Broccoli sprouts can be grown even at home. Several spoons (2-4) of broccoli seeds should be left to soak in water, and during that time should be rinsed 2-3 times daily. Then they can be placed to grow using two methods: one is a jar method where they need only 3-5 days to

grow or placed in a soil where they need 7-14 days to grow. They grow one to one and a half inches long (Braunstein, 1999). The highest level of some bioactive compound (glucoraphanin, sulforaphane and myrosinase) in broccoli sprouts was found to be when they are grown at 25°C, rather than those at 20 or 30 °C (Guo et al., 2014).

Further Readings

[Phytonutrients](#)

[Cruciferous Vegetables](#)

[Emerging Technologies and Management of Crop Stress Tolerance: Volume 1- Biological Techniques](#)

Products

[100% Natural Sulforaphane from Broccoli 400 mcg 60 Veg Caps](#)

[Glucosinolates in Rapeseeds: Analytical Aspects: Proceedings of a Seminar in the CEC Programme of Research on Plant Productivity, held in Gembloux ...](#)

[4x Tribulus Terrestris 1000mg X 90 Capsules, 95% Steroidal Saponins, 80% Protodioscin](#)

[Nature's Way Chlorofresh](#)

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Reishi mushroom

Ganoderma lucidum as it the Latin name for the mushroom commonly known in the west as Reishi, originating from its Japanese name. It has been called the “spirit mushroom” and “mushroom of immortality”, due to its believed effect known in the beginning of its use. This is a mushroom that was naturally found to grow on trees, but nowadays it is very hard to find in the wild. Since the health benefits of this mushroom have been researched, and since this mushroom in the nature was getting harder to reach, the cultivation has started and it is mainly conducted on wood logs or sawdust, but also it can be cultivated in liquid media. Best base for its cultivation is 80% oak, 18% wheat and Ca CO₃. Time is one of the biggest investments when cultivating Reishi because the period of incubation is almost 6 months long, sometime even 2 years. The body is 0.8-13 inches wide and 1.6-31 inches thick. This mushroom can be white, black, blue, yellow and purple, and has bitter woody taste or a bit umami taste. That is why this mushroom is most commonly used for tea preparation, although cultured mycelium doesn't have bitter taste and is very often sold as a powder.

Most potent components in this plant are its polysaccharides and triterpenoids. Beta glucan is the main polysaccharide, found to increase bodily resistance against growth of tumors, it kills the tumor cells in the body and enhances the immune system (Jong and Birmingham, 1992). Triterpenoids are the largest group of phytochemicals, and in this mushroom they are the ones that give a bitter taste and have hepatoprotective, anti-hypertensive, hypocholesterolemic, anti-histaminic effects, anti-tumor activity, and effects on platelet aggregation and other effects (Boh et al., 2007).

In traditional medicine Reishi mushroom was used for asthma, gastric ulcers, insomnia, arthritis, bronchitis and as a stress relief food (Halpern, 2007). Many studies have been conducted that show the beneficial effect of this mushroom in different health condition, and some of them will be further mentioned to better understand all the beneficial effect that this mushroom has.

Some dietary fibers (polysaccharides) promote absorptive effect, thus absorbing the toxic compounds in the body, and as addition they also promote laxative effect. In this way they show its preventive action effect against colorectal cancer. One very particularly interesting information is that this mushroom has tendency to accumulate germanium, a well-known component for its cancer fighting properties. The treatment of cancer patients with Reishi mushrooms was found to modulate and activate immune reaction of the organism, it has direct cytotoxic activity on malignant cells, deactivation on carcinogenic compounds, protection of the cell in the organism and other mechanisms. Treatment with *Ganoderma lucidum* on cancer patients as a complement on conventional cancer therapies has contributed to better anti-tumor response of the organism, better symptomatology after chemotherapy, and better life quality (FP UKIM, 2014).

Based on *in vitro* evidence and clinical trials on patients with coronary heart disease using polysaccharide extract of Reishi, improvements of primary symptoms were noted. The chest pain was lower, palpitations, lowering of the abnormal appearance of electrocardiogram, lowering of the blood pressure, LDL but elevation of HDL, and lower triglycerides (FP UKIM, 2014). In a placebo controlled study on healthy well-nourished human subjects during 4 weeks it was found that this mushroom has antioxidant power, it lowers the risk factor of coronary

heart and has not shown any toxicity (Wachtel-Galor, 2004).

Beneficial effect at patients suffering from Diabetes mellitus was noted at human studies when the polysaccharide extract form this mushroom was used. Then lower level of glucose in the plasma was noted, improvement of clinical symptoms and lower glycosylated hemoglobin.

Reishi may help lower the pain at patients with rheumatoid arthritis, when used in combination with other herbs. In conducted *in vitro* study there were some evidence that indicate lowering of the level of hepatitis B virus, at patients with chronically hepatitis B. In clinical study conducted for evaluation of Reishi mushroom at nephrotoxic patients with proteinuria resistant to steroid, after the treatment the level of proteinuria was lowered. One of the most exciting findings is the immunoenhancing effect and virus inhibiting effect of *Ganoderma lucidum* at HIV infection. Also water soluble extract of Reishi was found to have protective effect of DNA from oxidative stress. One very interesting effect that this mushroom has is in treatment of patients with Neurasthenia or commonly called Americanitis, a state of depressed mood, fatigue, neuralgia and similar symptoms, where use of this mushroom has elevated the sleep quality, enhanced their energy, the appetite, body weight, and the headache is eliminated (FP UKIM, 2014).



Reishi Mushrooms Fruits

FRUITS

Fruits are rich in fiber, vitamins, minerals and phytonutrients, but low in fat and sodium. As fresh fruits are mainly consisted of water, generally they carry low calorie load meaning that in combination with other wisely chosen foods the total daily calorie intake may be lower. Dietary fibers that among others are found in fruits may lower the risk of diabetes and obesity, and heart disease. Fruits that have high amount of potassium as bananas, cantaloupe, citrus fruits, etc., may lower the blood pressure, and reduce the risk of developing kidney stones. Overall including fruits in a diet may reduce the risk of heart disease, including heart attack and stroke. They carry many different types of antioxidants and beneficiary phytonutrients, thus have been proven to lower the risk of developing certain types of cancer.

When mentioning fruits as superfoods mainly **berries** are on the top of the list. They contain many phytonutrients as anthocyanins, carotenoids, ellagic acid, polyphenols, quercetin, but also they are loaded with vitamin C, and other vitamins and minerals. Most commonly mentioned super berries are :

- Acai (*Euterpe oleracea*)
- Chokeberry (*Aronia melanocarpa*)
- Cranberry (*Vaccinium macrocarpon*)
- Elderberry (*Sambucus nigra*)
- Lingonberry (*Vaccinium vitis-idaea*)
- Mulberry (*Morus alba*)
- Goji berry (*Lycium barbarum*)
- Blueberry/bilberry (*Vaccinium myrtillus*)
- Blackberry (*Rubus fruticosus*)



Fruits that contain many beneficial bioactive compounds. Pomegranate has anthocyanins and ellagic acid, tropical fruits have beta carotene, bromelain and manganese, papain (Papaya), potassium, vitamin C, etc. Mainly the following fruits are mentioned as super fruits:

- Noni fruit (*Morinda citrifolia*)
- Baobab fruit (*Adansonia digitata*)
- Dalandan (*Citrus sinensis*)
- Dragon fruit (*Hylocereus undatus*)
- Lychee (*Litchi chinensis*)
- Mangosteen (*Garcinia mangostana*)
- Pomegranate (*Punica granatum*)
- Sea-buckthorn (*Hyppophae rhamnoides*)
- Starfruit (*Averrhoa carambola*)
- Camucamu (*Myrciariadubia*)
- Acerola (*Malpighia glabra*)
- Mango (*Magnifera indica*)
- Papaya (*Carica papaya*)



They have all shown antioxidant activity as well other fruits like. Acerola, elderberry and pomegranate is said to have immunity enhancing properties. Evaluating phenolic content in 23 different berries and red fruit, it was found that elderberry had the highest amount of total flavonols, then with almost half of this content followed chokeberry, eastern shadbush, blackberry, cranberry and others. Quercetin was found in biggest amount and it was almost in all analyzed berries. But most importantly among same species wild berries had 3 to 5 times higher amount of flavonols than the cultivated ones (Mikulic-Petkovsek, 2012).

FURTHER READINGS

[Flavonol: Webster's Timeline History, 1947 - 2007](#)

[Fast screening of total flavonols in wines, tea-infusions and tomato juice by flow](#)

[injection/adsorptive stripping voltammetry](#)

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Goji berry

This plant generically named *Lycium barbarum*, is common in Asia, but it also grows in Europe and North and Central America. In Asia even eighty five species can be found, and the Ningxia Province in China is the place where goji berries are mainly cultivated. This is very adaptable plant and can even handle up to 40 degrees Fahrenheit. The fruit has different colors from pale yellow to orange, even dark red, but also varies in shape from round to oblong even pepper like. This fruit gained its popularity in Asia after the legend that Li Qing Yuen lived 252 years, as a result of diet that included goji berries daily. Li Qing Yuen daily tea was made from goji berries, ginseng and Reishi mushrooms, all well known for their health beneficial effect. This fruit is mainly consumed as fresh fruit, but also as concentrated juice, dried fruit and other forms, because the beneficial bioactive compounds are located both in the juice, skin and seeds of the fruit.

Goji berries have been used as a traditional medicine thousands of years in Asia. In Chinese medicine for instance it was used for kidney and liver nourishment, and for improvement of vision. They used not only the fruit, but also the flower, leaves and the roots. As it is said in the Chinese medicine, this berry increases *jing* energy of the adrenals and kidneys, thus enhancing stamina, strength, longevity, and sexual energy. This plant has become popular in the western world recently, and its health beneficial effect already has solid scientific proof. Several studies have indicated that this plant has antioxidant, anti-aging, neuroprotective, anti-tumor, cytoprotective effect, blood glucose regulating and many other effects (Amagase, 2011, 2014). Goji berries also enhance immune system and improve the eyesight and blood. One of the things that make them superfood is the fact that they contain all eight essential amino acids and another nineteen, many trace minerals, vitamin E and B vitamins. Other beneficial compounds found in goji berries, are beta-sitosterol anti-inflammatory agent, betaine proven liver healing compound and antioxidants like zeaxanthin and physalin. Betaine acts as a detoxifier by reducing toxic amino acid homocysteine in the cardiovascular system. They also have polysaccharides proven to have immune supportive effect (Wolfe, 2009). The polysaccharides from *Lycium barbarum* are stable even after 3 years in a fruit juice, and have shown strong antioxidant power in a human clinical study. One of the most commonly researched bioactive compounds in this fruit is glucan-O-Serglycopeptides (one of its polysaccharides) and it has been found to have strong antioxidant effect, anti-tumor and cytoprotective role. It has also skin protective effect, coming again from its antioxidative power inhibiting oxidative stress when the skin is treated with UV radiation. Working together towards enhancing the immune system in goji berries along with polysaccharides are beta-carotene and germanium. Germanium has been found to have cancer fighting properties, and has been proven to be effective in treating cervical cancer, liver cancer, lung cancer, testicular cancer, and uterine cancer. Both beta-carotene and germanium induce the production of immune-enhancing interferon.

What makes goji berry different from other food is the fact that this fruit has the power to stimulate the body to produce HGH- Human Growth Hormone, essential factor for aging prevention. They are the only food that contains anti-aging sesquiterpenoids the compounds that stimulate the production of HGH. As mentioned before they are rich in amino acids and L-glutamine and L-arginine that contribute this action because they are boosters of growth hormone levels. The HGS further may help increase the testosterone, important hormone that

enhances sexual drive.

The two major components found in goji berries that have many times proven beneficial effect on vision are zeaxanthin and lutein. They are powerful antioxidants situated in the retina that help and repair the damage made by free radical on the eye. So far it has been noted that they can help prevent macular degeneration, cataract, and diabetic retinopathy.

Supporting role in cardiovascular health of goji berries is done by increasing the production of SOD (superoxide dismutase), an antioxidant that prevents cholesterol from oxidizing, that is a process that forms plaques on the artery walls (Wolfe, 2009).

Goji berries are best when eaten fresh organic product, but you can also consume them as dry fruit or fruit juice. It is enough to take a handful of berries or 15 to 45 g. Mix them in any dish, where the temperature and the time of preparation will be low, to preserve its nutrient components.



Further Readings

[Nitric oxide production by hemocytes of larva and pharate prepupa of Galleria mellonella in response to bacterial lipopolysaccharide: Cytoprotective ... Biochemistry and Physiology, Part C](#)

Products

[Polyphenols in Human Health and Disease. Source Naturals Zeaxanthin with Lutein, trunature Vision Complex Lutein & Zeaxanthin,](#)

[Life Extension-super Zeaxanthin with Lutein, Meso-zeaxanthin and C3g,](#)

[Source Naturals - Zeaxanthin with Lutein 10 mg](#)

[Simply Right Lutein 25mg & Zeaxanthin 5mg](#)

Nonifruit

This is the fruit of *Morinda citrifolia* L. tree, native in South-East Asia. Mainly it grows in Hawaii and Tahiti, though now its cultivation has spread towards Central and South America (Carrillo-Lopez, 2011). It is a yellow 3 to 4 inch fruit. In traditional medicine it was used by Aborigines from Australia, inhabitants of Pacific area, and South-East Asians, and they used not only the fruit but even leaves, seeds, bark and roots.

In traditional medicine it has been used for its antibacterial, antiviral, antifungal, antitumor, analgesic, anti-inflammatory, hypotensive, antihelmin effect (destroying of parasitic worms) and for enhancing the immunity (Wang et al., 2002). Recent researches have confirmed its antioxidant, antimicrobial and anticancer properties (Carrillo-Lopez, 2011).

Determination of nutrient profile of noni juice revealed that it is potential dietary source of vitamin C, vitamin A, niacin, manganese, potassium, iron and selenium. There is significant amount of polysaccharides that boost immunity. In one research noni fruit juice and noni concentrate were investigated, and it was found that both have potential immune enhancing and immuno-modulating effect (Palu et al., 2008).

The main health beneficial effect comes from the high concentration of phytochemicals, like polyphenols that mainly protect the heart and iridoids, the cancer fighting components. Most commonly researched iridoid is deacetylasperulosidic acid and most researched polyphenol in noni fruit is scopoletin. Scopoletin has antibacterial, antifungal, anti-inflammatory and analgesic properties as found by the researches of University of Hawaii. This component can also lower blood pressure, acting as a vasodilation and prevent or treat allergies, arthritis, sleep disorder, headaches, depression and even Alzheimer's disease. There are some antioxidants in noni, that protect the body tissue especially the kidney, liver and brain, by scavenge the free radicals (West et al., 2011, Bonne, 2013). When analyzing the fruit puree of noni, several active compounds were isolated as scopoletin, rutin and quercetin. It was noted that combination of scopoletin and quercetin acted synergistically in suppression of inflammatory and carcinogenic process related to certain oxidative processes (Nitteranon et al., 2010).

Study done by Jaikittivong et al., showed that the noni fruit extract, had antifungal activity in vitro on *Candida albicans*, and that effect was variable upon time and concentration. Even improved mental health and improved high frequency hearing were noted when Tahitian noni juice was consumed. Some confirmations of the health benefit of noni were concluded by statistical clinical survey of 10 000 noni juice users conducted by Neil Solomon. He found that energy level was increased at 91% of the users, 72% of overweight patients lost weight, 90% of those with chronic pain felt decrease in the pain, and another high percentage results in lessening symptoms at arthritis patients, lowering of blood pressure, improved digestion and better symptoms at patients with depression, allergy, diabetes, heart disease and even at cancer patients (Wang et al., 2002).

Products

[Dynamic Health Noni Juice](#), [Tahitian Morinda Citrifolia](#), [Doctor's Best Best Noni Concentrate](#)

[1 Bottle Organic Noni Indian Mulberry Morinda Citrifolia](#),

[70 Capsules Indian Mulberry Morinda Citrifolia Longevity Herbal Antioxidant](#),

[Noni Fruit Powder Organic - Morinda citrifolia.](#)

Proteins

This is a group containing fish, meat, beans and peas, nuts and seeds that carry the building component for the cells. It is very variable group as it may contain food from animal and non-animal source. Legumes high protein foods, were previously mentioned in vegetable section. In this group commonly mentioned as superfoods are **cold water fish** because they are high in omega-3 as:

- Salmon
- Halibut
- Trout
- Tuna
- Sardines
- Mackerel
- Krill or more exactly its oils.

This food group had media attention from the high content of Omega-3 fatty acids. Of course there are some **plant protein foods** that are high in omega-3 as:

- Hempseed
- Chia seed
- Flax seed



Chia seed

Chia (*Salvia hispanica* L.) is seed used by the Mayan and Aztec and it has been grown for centuries in South America. They are part of the mint family, the seeds are 2 mm long and can be white, dark brown, gray or black. Industrial crops are grown in Northern Argentina and in Bolivia. As Mayan and Aztec needed a lot of energy for their lifestyle, they used this seed to increase their stamina and energy. Chia was incorporated in their diet as flour, but they also produced oil from it or ate it whole in some dishes. Through the years, the new immigrants in South America imposed their own food, and chia lost its traditional use. Recently as the researches for nutrient content of the foods and their health benefits increased, chia regained its popularity but now it is worldwide. Nutrition Business Journal research and Nilsen's food/drug/Mass/Natural Channels have stated that there was a 239% increase in chia demand in the year of 2012/2013 (www.foodnavigator-usa.com).

The nutrients that built its bombastic image are calcium, manganese, phosphorus, and omega3 fatty acid. In fighting junk food eating habits, this food has its advantage also because it is has low calories and has big amount of fibers, antioxidants and proteins. It is one of the most abundant non animal sources of omega 3, along with flaxseed and some algae. Almost 63% of the total fatty acids in chia seed is Omega-3 or more precisely the ALA (alpha-linoleic acid). This fatty acid has been found to be beneficial in fetal development period, especially for their brain development, and has advantage opposed to fish, because fish can accumulate mercury. Human body is generally not capable of synthesizing Omega-3 fatty acids, thus their daily consumption is necessary. The ratio among Omega-3 and Omega-6 is important for proper body function. Omega-6 are inflammation causer by accumulation of substances that induce inflammation, they promote blood viscosity, contribute to fat storage and narrowing of blood vessels. On the opposite Omega-3 fatty acids reduce inflammation, dilate the blood vessels, and limit the production of adipose cells. Chia seeds have Omega 6 fatty acids, but their amount is not dominating as it was previously mentioned. According to the USDA nutrient database, it is found that in 100 g of chia seed there is 34 g of dietary fiber, and the recommended daily intake is 20 to 30 g, meaning that 100 g cover the required intake for fiber. Chia is rich in protein, in 100 g there are more than 16 g proteins, and they are actually all essential amino acids and no gluten. Again in 100g of chia seed there is around 60% of the RDI for calcium, 40% of RDI for iron, 80% of RDI for magnesium and phosphorus, and is rich in zinc, B vitamin as thiamin and niacin. The phytochemical profile of chia includes phenolic acids (caffeic acid, garlic acid, rosmarinic acid, etc), high amount of izoflavones (Martínez-Cruz and Paredes-López, 2014) and other. Main antioxidants are chlorogenic acid and caffeic acid that have cancer preventive properties and they also prevent age-related degenerative illness. A recent study found that there are some more antioxidants present in chia seed, than the ones previously found, as myricetin, quercetin, kaempferol, chlorogenic acid and many others (Marineli et al., 2014). Nevertheless they all show high antioxidant power of chia seeds.

Chia seed was found to have beneficial effect on reducing the cardiovascular risk factor while ALA and EPA (eicosapentaenoic polyunsaturated fatty acid) in blood plasma was increased. This was a study carried out for 12 weeks at subjects with well controlled type 2 diabetes, and there was not change in the safety parameters (Vuksan et al., 2007). As increased level of ALA in blood plasma shows the bioavailability of chia, the health benefits of ALA can be said that they refer also on the chia seed. Besides contributing to maintenance of normal blood cholesterol level ALA has been found to be essential for normal growth and development of

children (EC, 2014). Calcium and magnesium have been found to contribute to normal muscle function, nervous system, and together with phosphorus they contribute the maintenance of normal bones and teeth. Magnesium is also important for reduction of tiredness and fatigue, electrolyte balance along with other functions (EC, 2014).

There are many chia products on the market marked as pure chia seed, chia oil, chia protein, flour etc. Unlike other seeds chia can be eaten as it is, it's not necessary to grind it to get its health benefits.



Chia Seeds



Flaxseed

Further Readings

[The seed's oil content and fatty acid composition of chia \(*Salvia hispanica* L.\) var. Iztac 1, grown under six tropical ecosystems conditions/Contenido ... de oleo: An article from: Interciencia](#)

Products

[HealthWorks Pesticide and Chemical Free Chia Seeds](#)

[Viva Labs Organic Chia Seeds: Raw and Non-GMO](#)

Herbs and spices

Plants have been used in everyday meals for as long as we know. The rhizomes, stems, leaves, flowers and seeds have been used from different plants, in preparation of various teas, infusions, extracts, spices and other. As the globalization on the market promotes only certain products, mainly the use of these products has been reduced. But it is essential to incorporate them back in the diet as they show strong beneficial effect and are used in very small amounts, mainly in grams.

Some plants have shown high antioxidant activity as:



- Tea (*Camellia sinensis*)
- Turmeric (*Curcuma longa*)
- Chamomile (*Matricaria recutita*)
- Barley grass (*Hordeum vulgare*)
- Dandelion (*Taraxacum officinale*)
- Garlic (*Allium sativum*)
- Ginger (*Zingiberofficinale*)
- Hawthorn (*Crataegus oxyacantha*)



- Hibiscus (*Hibiscus sabdariffa*)
- Kudzu (*Pueraria lobata*)
- Marigold flower (*Calendula officinalis*)
- Milk thistle (*Silybum marianum*)
- Rhodiola (*Rhodiola rosea*)
- Rose hips (*Rosa canina*)
- Rosemary (*Rosmarinus officinalis*)
- Sage (*Salvia officinalis*)
- Schisandra (*Schisandrachinensis*)
- Rooibos (*Aspalathus linearis*)
- Cocoa (*Theobroma cacao*) etc.

Other plants have been found to have strong immunity enhancing properties, as:

- Echinacea purpurea (*Echinacea purpurea*)
- Asian ginseng (*Panax ginseng*)
- Siberian ginseng (*Eleutherococcus senticosus*)
- Licorice (*Glycyrrhiza glabra*)
- Onion (*Allium cepa*)
- Cat's claw (*Uncaria tomentosa*)

One of the most important features in prevention of disease as cancer and liver diseases, is detoxifying of the body. Herbs that is said to have detox effect id previously mentioned dandelion, green tea, hibiscus, milk thistle, and:

- Fennel (*Foeniculum vulgare*)
- Fenugreek (*Trigonella foenum*)
- Giarana (*Paulinia cupana*)

- Horsetail (*Equisetum arvense*)
- Java tea (*Ortosiphon stamineus*)
- Lemon balm (*Melissa officinalis*)
- Nettle (*Urtica dioica*)
- Parsley (*Petroselinum sativum*)
- Ash tree (*Fraxinus excelsior*) and
- Cherry tails (*Prunus cerasus*).



Turmeric

This is grounded and dried rhizome of the plant *Curcuma longa* L. This plant is 1 m height, and has main ovate rhizome with dimensions of about 3 cm wide and 4 cm long. The rhizome has yellow to yellow brown color on the outer part and orange yellow to orange in the internal part. It is a bit bitter and has typical aroma. It grows in Asia and mainly is cultivated in Cambodia, China, India, Indonesia and Thailand. Due to its yellow color it was believed that it replicates sunlight and thus must have protective properties. In Hindu rituals it was used for many years, even for cloth dyeing with believe that the ones that wears the clothes will be protected from infection or fever (Nair, 2013). According to WHO when using powdered plant it is enough to use 1, 5 to 3 g per day.

In traditional medicine it was used for many conditions as treating peptic ulcers, lowering of the pain and inflammation in cases of rheumatoid arthritis, diarrhea, epilepsy, pain, skin diseases, etc. The principal recommended clinical use of turmeric is as always a bit narrower than traditional one, and is for the treatment of acid, flatulent or atonic dyspepsia.

Major chemical constituents are monoterpenes and sesquiterpenes, including zingiberene, curcumene, α - and β - turmerone. The color comes from its curcuminoids. Evaluating the cytotoxicity, antioxidant effect and anti-inflammatory effect of curcumin I, II and curcumin III from *Curcuma longa*, it was established that these compounds have shown activity against leukemia, colon, melanoma, renal, CNS, and breast cancer cells. They have shown inhibition of different oxidative processes (Ramsewak et al., 2000). Curcumin can reduce the development of several forms of cancer in lab animals and it can also shrink animal tumor. In the early stages of evaluation of its cancer preventive role in humans it is said to be a problem its absorbance in the intestine (Akram et al., 2010). *In vitro* studies have also shown that curcumin was effective against bacteria *Helicobacter pylori*, known to be carcinogenic for gastric cancers (Hedge et al., 2013).

The clinical effect of turmeric through scientific investigation has implicated that it can act anti-inflammatory, antioxidative, chemopreventive, antimutagenic, anticarcinogenic, antimicrobial, antidiabetic, hepatoprotective, antithrombotic, and other effects (Nair, 2013). In clinical studies where its anti-inflammatory effect was evaluated, it was noted that curcumin can act as anti-inflammatory drug, and given in patients with rheumatoid arthritis the morning stiffness was improved, the walking time and joint swelling. In other studies on subjects with peptic ulcers, when they received it as oral drug they noticed that the drug promoted ulcer healing effect and decrease in abdominal pain (WHO, 1999). Turmeric has been found to reduce post-surgical inflammation and it also helps the prevention of atherosclerosis by reducing formation of blood clumps. The anti-inflammatory property of turmeric is due to three properties. First type of action is lowering the production of inflammation inducing histamine. Then second action is increasing and prolonging of cortisol, the natural anti-inflammatory adrenal hormone. And the third action is improvement of circulation, thus flushes toxins out of the small joints where usually the cellular waste and inflammatory compounds are trapped (Akram et al., 2010). Turmeric has been even shown to have therapeutic properties against Alzheimer disease. Its detoxifying effect has even been used to alleviate the adverse effect of hallucination as a result of consumption of hashish or other psychotropic drugs (Nair, 2013). Also curcumin also can bind heavy metals as cadmium and lead, and in that way it reduce their toxicity. This is how turmeric acts protective on the brain (Akram et al., 2010).



Further Readings

[The Onion Book of Known Knowledge: A Definitive Encyclopaedia Of Existing Information](#)

[Ginseng, the Divine Root: The Curious History of the Plant That Captivated the World](#)

[Handbook of Herbs and Spices](#)

[Chinese and Related North American Herbs: Phytopharmacology and Therapeutic Values](#)

Products

[Eden Pond Turmeric Curcumin, Nature's Way Ginger Root, Starwest Botanicals Organic Hibiscus Flowers Cut,](#)

[Solaray Organic Sage, Organic Schisandra Berry Whole, Healthworks Raw Certified Organic Cacao Powder,](#)

[Echinacea Purpurea Herb, Cut & Sifted Frontier Natural Products,](#)

[Nature Made Ginseng \(Chinese Red\), Enzymatic Therapy Saventaro Cat's Claw, Frontier Fennel Seed Whole,](#)

[New Chapter Lemon Balm Force Capsules,](#)

Where and what to buy?

Choosing the right ingredients in a diet is the first step towards better health. The commonly mentioned super foods have already been listed, and the next step is the place to buy them. In order to get the maximum of the food, especially for fruits and vegetables it is essential that you buy them from a place that always offers fresh ingredients. The quality of fruits and vegetables degrades rapidly within few days, so it is not only important that the food looks good and it also should have the appropriate nutrients. Usually the taste will tell us all we need to know about the food, at least when it comes to fruits and vegetables the look may be modified and make it better than the quality though the sensory evaluation of the product is the true one. Also have in mind that in order to give the best to your body you should not impose it on different health damaging components. This means that during the production excessive amount of pesticide were not used, organic food is better for you, and that the conditions in terms of temperature, humidity and hygiene during production and storage, were proper. Many of these parameters can result on visual damage on the product (as moulds, dust, rotten product etc) and this can be avoided easily, unfortunately some threats as aflatoxins and bacteria are noted only when the damage is already done. Of course you cannot know everything about the product, however many other visible changes may even tell you something about the ones that you cannot spot. So choosing a trustworthy place for grocery shopping is essential.

When it comes to choosing a right producer, it is very important that you read the labels. Yes reading labels can be sometime boring, especially if you do not understand the half of the ingredients listed, there is one simple rule, if you do not know it just don't buy it. It is against the law not to label the ingredient that is actually in the product. Unfortunately many times the exact same thing had happened, and in some cases the repercussions were worldwide and very much health threatening. So what does this actually means? When choosing for example a Goji berry juice, choose between the price and the content. If there are two products with almost same percentage of goji in the juice (one 6% and the other 8%) it won't make much difference in the serving size, if there is one with 100% goji berries that this should be the one in your cup. The labeling can also be misleading, for instance there can be two juice packs with very nice photo of goji berry, look out for the one states that there is 100% Goji juice and the other one 100% fruit, it may turn out that it has only 10% goji and the rest of it is some other fruit. These packages on first sight might look the same, and that is why you actually need to read the label, to understand what are you getting for your money. For some products the thing may not change a lot in your general condition in a short period, so you won't even notice it. Though for products based for instance on probiotics, where you expect some beneficial effect on gut health for a shorter period of time it is essential that the label of the product you are buying has enough information. It would be right for the producer to write the exact density of the probiotic strain in the time of consumption, and not in the time that they had prepared it, or even worst not at all information about the amount of colonies per ml.

Another important thing when you are choosing the products is to choose wisely the type of product to buy of certain superfood. Fresh food is always the best, only if it is really fresh. Most of the time fruits are imported from far away countries and unfortunately by the time they reach the grocery shop their quality is not that high. Try to source local producers for these superfoods, or as an alternative, try frozen if a particular ingredient is not available, it is not recommended, however when there is no choice, you may supplement this ingredient with the

frozen choice. In a recent study carried out by University of Chester fresh fruits stored at 4°C for 3 days were evaluated for their nutrient content opposite their counter pairs frozen fruits and vegetables stored at domestic freezer at 20 °C. The study was made for evaluation of the impact of storage conditions. The study was carried out on blueberries, raspberries, peas, green beans, cauliflower, and baby sweetcorn. These products were evaluated for their content in vitamin C, total polyphenols, total anthocyanins and carotenoids (beta-carotene and lutein). The concentration of nutrients of frozen products was similar to the fresh ones prior their storage. During the storage the nutrient content decreased to levels below the one of frozen products, and after 3 days the difference was biggest. This was most notable at soft fruits, as the concentration of vitamin C at blueberries was 3 times lower than the in frozen ones and vitamin C in refrigerated green beans was one quarter than in the frozen green bean. Only cauliflower exhibited higher amount of vitamin C after refrigeration, however the possible explanation behind that was that the frozen cauliflower was blanched previous freezing. Total polyphenols varied in different samples of fruits and vegetables and at it was most confusing at berry fruits. They were lower in fresh fruits than in frozen ones, however they were highest, at refrigerated ones, suggesting that this might be due to ripening process than increased extractability of polyphenols. Anthocyanins decreased during refrigerating of soft fruits, and the change was much smaller in vegetables. The concentration of carotenoids was not that noticeable as it was on the previous mentioned nutrients, because the detected level in all samples was very low (Bonwick and Birch, 2013).

Food preparation and effect on nutrients

The next step is food preparation. All essential nutrients are susceptible to temperature which is why in order to get the maximum from the food it is the best that you consume it raw. This of course can refer to food that can be eaten raw as fruits and vegetables. Fresh salads whether it is a fruit salad or vegetable salad, with some nuts or seeds is one of the best ways to use the superfood. Another way is to make some fresh juice or smoothie. You can be creative and make some smoothie from nut milk and some berries, it doesn't necessarily have to be with milk or yogurt. In cases when you want to prepare some infusion of certain health beneficial herb and you do not like the taste of it, you can mix it with some fruit and vegetable to cover the flavor, and still get the most important nutrients. In those cases you can even mask the flavor with some of our favorite natural flavors and spices, as for instance cinnamon, lemon, apple peel etc. Cooking the food would be the best if it is done at low temperature and short time. Vitamins and minerals are susceptible to processing, especially the one of the most important antioxidants vitamin C. Different types of preparation can affect the nutrients differently. Drying affects vitamins and generally about 50 % of the content is lost during this process, except for the vitamin C where around 80% is lost. Most stable are the B vitamins, where Riboflavin, Niacin and B6 are lost only about 10% and Thiamin around 30%. Minerals are not affected at all by this process. Cooking destroys nutrients more severely except for vitamin C that is less destroyed compared to drying process. When cooked almost 50% of this vitamin is lost. Majority of the vitamins are lost at about 25% -55%, though Folate is destroyed almost by 70%, and minerals are destroyed around 20 to 40% (www.nutritiondata.self.com).

High temperature processes can also produce some health damaging components as acrylamide (a component found to have carcinogenic effect in animals, and is suspected that has the same effect on humans). This compound is formed when certain food is cooked above 120 °C. Grilling or roasting of the food can also impair food and create unwanted components as polycyclic aromatic hydrocarbons (PAHs), benzene, N-nitrosamines (in nitrite treated food) etc. These are the reasons that the best way to cook the food is to use boiling, steam cooking or some similar process. Best way(s) to cook your food is to do it just enough to get rid of the potential hazardous bacteria and to soften it a bit, if that fits your taste buds, al dente is our favorite style with any form of cooking.

There are some foods that are actually better to be cooked because the cooking process destroys some toxic compounds that they have, or improves the bioavailability of other components. Such are some plants that have protease inhibitor, and most commonly legumes have them, other foods that can be cooked are barley, beans, corn, peas, potatoes, rice etc. Tomato is one of few foods that is also good to consume cooked, as they show better absorption of carotenoids when cooked.

Further Readings

[GERMINATION EFFECT ON NUTRIENT DENSITY OF SORGHUM-BASED WEANING FOOD: Development of sorghum-based nutritious weaning foods using traditional food preparation techniques \(germination and blending\)](#)

[Understanding Food: Principles and Preparation Food Preparation for the Professional](#)

[Illustrated Guide to Food Preparation \(11th Edition\)](#)

[CourseMate Online Study Tool with Diet Analysis Plus 2-Semester, Global Nutrition Watch Access to Accompany Brown's Understanding Food: Principles and Preparation \[Instant Access\]](#)

[Understanding Food: Principles and Preparation Food Preparation](#)

Summary of Ingredients

Herbs and spices

- Tea (*Camellia sinensis*)
- Turmeric (*Curcuma longa*)
- Chamomile (*Matricaria rectita*)
- Barley grass (*Hordem vulgare*)
- Dandelion (*Taraxacm officinale*)
- Garlic (*Allim sativm*)
- Ginger (*Zingiberofficinale*)
- Hawthorn (*Crataegs oxyacantha*)
- Hibiscs (*Hibiscs sabdariffa*)
- Kdz (*Peraria lobata*)
- Marigold flower (*Calendla officinalis*)
- Milk thistle (*Silybm marianm*)
- Rhodiola (*Rhodiola rosea*)
- Rose hips (*Rosa canina*)
- Rosemary (*Rosmarins officinalis*)
- Sage (*Saliva officinalis*)
- Schisandra (*Schisandrachinensis*)
- Rooibos (*Aspalathslinensis*)
- Cocoa (*Theobroma cacao*) etc.
- Echinacea prprea (*Echinacea prprea*)
- Asian ginseng (*Panax ginseng*)
- Siberian ginseng (*Eltherococcs senticoss*)
- Licorice (*Glycyrrhiza glabra*)
- Onion (*Allim cepa*)
- Cats's claw (*nicaria tomentosa*)
- Fennel (*Foeniclm vulgare*)
- Fengreek (*Trigonella foenm*)

- Giarana (*Palinia cpana*)
- Horsetail (*Eqisetm arvense*)
- Java tea (*Ortosiphon stamines*)
- Lemon balm (*Melissa officinalis*)
- Nettle (*rtica dioica*)
- Parsley (*Pertoselinm sativm*)
- Ash tree (*Fraxins excelsior*) and
- Cherry tails (*Prns cerass*).

Fruits and vegetables

- Acai (*Eterpe oleracea*)
- Chokeberry (*Aronia melanocarpa*)
- Cranberry (*Vaccinmmacrocarpon*)
- Elderberry (*Sambcs nigra*)
- Lingonberry (*Vaccinm vitis-idaea*)
- Mlberry (*Mors alba*)
- Goji berry (*Lycinm barbarm*)
- Bleberry/bilberry (*Vaccinimmyrtills*)
- Blackberry (*Rbs frticoss*)
- Noni frit (*Morinda citrofilia*)
- Baobab frit (*Adansonia digitata*)
- Dalandan (*Cits sinensis*)
- Dragon frit (*Hyloceres ndats*)
- Lychee (*Litchi chinensis*)
- Mangosteen (*Garciniamangostana*)
- Pomegranate (*Pnica granatm*)
- Sea-bckthorn (*Hyppophaerhamnoides*)
- Starfit (*Averrhoa carambola*)
- Camcam (*Myrciariadbia*)
- Acerola (*Malpighia glabra*)

- Mango (*Mangifera indica*)
- Papaya (*Carica papaya*)
- Pumpkin
- Carrot
- Sweet potatoes
- Tomato
- Shitake (*Lentinula edodes*)
- Maitake (*Grifola frondosa*)
- Reishi (*Ganoderma lucidum*)
- Cabbage
- Beet or Beetroot
- Barley grass
- Wheat grass
- Oat grass
- Alfalfa grass
- Broccoli sprouts
- Alfalfa sprouts
- Radish sprouts

Omega-3

- Broccoli
- Broccoli sprouts Romanian lettuce Kale
- Spinach
- Collard greens Bok Choy
- Swiss chard
- Turnip greens Mustard
- Brussel sprouts

Legumes

- Adzuki beans
- Black beans
- Pinto beans

- Garbanzo beans
- Kidney beans
- Lima beans
- Cannellini beans
- Black-eyed peas
- Soy beans
- Mesquite

Proteins

- Salmon
- Halibut
- Trout
- Tuna
- Sardines
- Mackerel
- Krill or more exactly its oil

Plant protein foods

- Hempseed
- Chia seed
- Flax seed

Other Foods

- Onions
- red and blue plants
- citrus fruits
- dark yellow
- Orange and deep green vegetables
- Oranges
- Pink grapefruit
- Apples
- Red wine
- Turnips.

- whole grains
- green leafy vegetables
- fruit juices, cereals , and oilseeds
- brazil nuts, tuna fish, sunflower seeds, flaxseed

Conclusion

According to the newest recommendations for daily meal (plate of food pyramids) it is recommended that at least one half of the food consumed during the day should be consisted of fruits and vegetables, with vegetables having slight advantage. Please note that fruits although healthy, do have a large amount of natural sugars that can spike your insulin levels.

In the second half, grains should be more present, especially whole grains, and the rest should be protein food.

Dairy food is to be present in moderate amounts.

Superfood(s) have a huge advantage because they are naturally concentrated, thus the body's nutrient requirements can be satisfied with smaller amounts. Supplementation is not necessary, even not recommended, as superfood(s) can be more beneficial, though for time poor people although not recommended we do have links to supplements that you can purchase throughout this ebook.

The previously mentioned list of superfoods is long; it gives you many options for meal preparation and combinations. It also allows you to follow one of the basic principles in nutrition, to incorporate different products in the diet, to mix and match many foods in order to balance the body with different nutrients. With gentle food preparation processes you will get the maximum of it. Do something good for your body every day, invest in your health not only financially also by devoting some time in careful food selection and preparation, for better well-being. Start with your pantry and start your healthy eating today.

The best appliances used at home are a slow press juicer for all my juice extracting, a thermo mix for my soups and dips, a Vitamix for my protein shakes, and on the go I use the magic Bullet.

[Kuvings Whole Slow Juicer B6000S - Silver Hurom HU-100 Masticating Slow Juicer, White BELLA 13695 NutriPro Cold Press Juicer, Stainless Steel](#)

[The Original Healthy Juicer \(Lexen GP27\) - Manual Wheatgrass Juicer - Kale, Spinach, Parsley and any other Leafy Green! Featuring a masticating live-enzyme cold press process!](#)

[Kuvings Whole Slow Juicer RED Pearl Combo Pack 3 + Folding Drain Rack + Nut Milk Bag + Juicing eBook, recipes + Cocodrill Coconut Tool + Citrus Peeler - Heavy Duty Vertical Single Auger Low Speed Juicing B6000PR](#)

[Vorwerk Thermomix Tm31 Tm 31 NEU OVP Transparenter Varoma Neue Version Mit Glanz Best Quality Fast Shipping Ship Worldwide From Hengheng Shop](#)

[Thermomix Recipes- breakfast, lunch, dinner, dessert. Vitamix 5200 Series Blender, Black](#)

[Magic Bullet NutriBullet Pro 900 Series Blender/Mixer System](#)

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