

High Protein Foods■Protein is a macronutrient that forms the building blocks of the human body. It is necessary for many different functions, including growth and repair of all types of tissues, formation of enzymes and hormones, immune system function, and regulation of fluid and nutrient balance. A deficiency in protein leads to muscle atrophy and impaired functioning of the body in general. (1)■The reference dietary intake (RDI) of protein is between 46 and 63 grams for most adults, with pregnant and lactating women needing up to 65 grams per day. (2) The daily value (DV) for protein is set at 50 grams per day (3), which is an average that works for most people. Athletes or other people looking to build muscle mass may want to consume more protein.■High protein foods include lean chicken, lean pork, fish, lean beef, tofu, beans, lentils, low-fat yogurt, milk, cheese, seeds, nuts, and eggs.■Below is a list of healthy protein-rich foods sorted by common serving size. Use the protein nutrient ranking to sort by 100 gram or 200 calorie serving sizes. For more information, see the lists of vegetarian protein, high protein fruits, and high protein vegetables.

High Carb Foods to Limit or Avoid■Carbohydrates are one of the three macronutrients required by the body for proper functioning and good health. The main function of carbohydrates is to provide energy to the body including the brain, which also runs on glucose.■Healthy high carb foods like whole grains, plus fruits and vegetables (which are also classed as carbohydrates) are an essential part of a balanced diet, and eating plenty of these foods reduces the risk of many diseases, including heart disease, type II diabetes, obesity, and some cancers. On the other hand, excessive consumption of refined carbohydrates like sugar or corn syrup, can increase our risk of the same diseases.■Unhealthy high carbohydrate foods include pancakes, soft pretzels, bread products, ready-to-eat cereals, milkshakes, ice-cream, cereal bars, cake, pies, muffins, sweetened canned fruits, sugary drinks, fruit juices, corn chips, potato chips, and candies. Healthy high carbohydrate foods include whole grains, beans, vegetables, fresh fruits, nuts, and seeds. The daily value (DV) for carbohydrates is 275 grams. For more healthy high carbohydrate choices see the list of healthy high carb foods.■Below is a list of foods highest in carbohydrates, for more see the extended list of carb rich restaurant foods.

High Potassium Foods■Potassium is an essential nutrient used to maintain fluid and electrolyte balance in the body. It also plays a critical role in the transmission of electrical impulses in the heart.■A deficiency in potassium causes fatigue, irritability, and hypertension (high blood pressure). (2) Unless you are on dialysis or have a special condition, an overdose of potassium from natural sources is nearly impossible. Signs of high potassium blood levels include weakness, paralysis, and heart palpitations. (2)■High potassium foods include leafy green vegetables, fish, white beans, avocados, potatoes, acorn squash, milk, mushrooms, bananas, and cooked tomatoes. The current daily value (DV) for potassium is 4700 milligrams (mg), recently raised from 3500mg by the FDA. (1)■Below is a list of high potassium foods ranked by common serving sizes, for more see the lists of high potassium foods by nutrient density, more potassium rich foods, fruits high in potassium, and vegetables high in potassium.■You can also sort high potassium foods by 100 gram and 200 calorie serving sizes using the nutrient ranking tool.■Looking to consume less potassium? See our list of low potassium foods.

High Fiber Foods■Dietary fiber, also known as "roughage," is an essential

essential nutrient required for proper digestion of foods, good gut health, and helping you feel full. (1) ■ Health benefits of fiber include reduced blood pressure, lower cholesterol, and a decreased risk for stroke, diabetes, and various gastrointestinal diseases. (1) ■ High fiber foods include beans, lentils, avocados, chia seeds, a corn squash, green peas, collard greens, broccoli, oranges, and sweet potato. The current daily value (DV) for dietary fiber is 28 grams. (2) ■ Below is a list of high fiber foods, for more, see the extended lists of fiber rich foods, vegetables high in fiber, fruits high in fiber, beans high in fiber, and grains high in fiber.

High Iron Foods ■ Iron is an essential mineral used to transport oxygen around the body in the form of hemoglobin. A slight deficiency in iron causes anemia (fatigue/weakness), and a chronic deficiency can lead to organ failure. (1) ■ Conversely, too much iron leads to the production of harmful free radicals, and interferes with metabolism, causing damage to organs like the heart and liver. (1) ■ The body is able to regulate the uptake of iron, so overdose is rare and usually only occurs when people take supplements. Iron from natural food sources, like the ones listed below, are considered safe and healthy. ■ Foods high in iron include fortified cereals, beef, shellfish, dried fruit, beans, lentils, dark leafy greens, dark chocolate, quinoa, mushrooms, and squash seeds. The current daily value (DV) for iron is 18 milligrams (mg). (2) ■ Below is a list of high iron foods. For more high iron foods see:

Vitamin D Foods ■ Vitamin D is an essential vitamin required by the body for the absorption of calcium, bone development, immune functioning, and alleviation of inflammation. (1,2,3) ■ Vitamin D deficiency can lead to rickets, a weakened immune system, increased cancer risk, poor hair growth, and osteomalacia. (4,5,6) ■ Excess vitamin D can cause the body to absorb too much calcium, increasing the risk of kidney stones. (7,8) ■ The current daily value (DV) for vitamin D is 20 mcg (micrograms) (800IU) per day and the toxicity threshold is thought to be 250 to 1000 mcg/day. (9,10) Sometimes vitamin D values are given in IU (International Units). When this is the case remember that 1mcg=40IU for Vitamin D. (9) ■ Vitamin D is made by the body when the skin is exposed to sunlight and is therefore called the sunshine vitamin. Sun exposure (dermal synthesis) is the primary source of vitamin D for most people. (11) Depending on the season and where you live, sunlight may not help your body create enough vitamin D. Further, elderly people often do not synthesize as much vitamin D. (12) ■ Vitamin D is fat-soluble, which means you need to eat fat to absorb it. Foods high in vitamin D include fish, mushrooms exposed to sunlight, fortified milk, fortified milk substitutes, fortified tofu, fortified yogurt, fortified breakfast cereals, fortified orange juice, pork chops, and eggs. ■ Vitamin D is not naturally found in many foods which is why so many foods are fortified with vitamin D. This means that vitamin D has been added to various foods for the benefit of the general public. Foods that are fortified with vitamin D also tend to be high in calcium. ■ Below is a list of the top 10 foods highest in vitamin D by common serving size. For more see the lists of foods high in vitamin D2, vitamin D3, and the nutrient ranking of 200 foods high in vitamin D.

High Vitamin B12 Foods ■ Vitamin B12, or Cobalamin, is necessary for many different processes throughout the body, including making DNA and creating energy in our cells. (1) A deficiency of vitamin B12 can lead to a variety of symptoms, including anemia, fatigue, mania, and depression. A long-term deficiency can cause

permanent damage to the brain and other parts of the nervous system. (2)■Vitamin B12 is created by bacteria and can only be found naturally in animal products. (1) However, synthetic forms are widely available and added to many foods such as packaged cereals.■Vitamin B12 is a water-soluble vitamin, so the body is able to easily get rid of excess. This is why it's considered a safe vitamin, and there is no established upper limit for consumption. However, extremely high doses can cause bothersome symptoms. (3)■The liver stores enough vitamin B12 to last for several years, which is why it usually takes a long time for a person to realize that they have a deficiency of this vitamin.(1)■High vitamin B12 foods include clams, fish, crab, low-fat beef, fortified cereal, fortified soymilk, fortified tofu, low-fat dairy, cheese, and eggs. The daily value (DV) for vitamin B12 is 2.4mcg per day. In 2016, this was reduced from 6mcg per day, because the scientific evidence shows that 2.4mcg is enough to prevent symptoms of deficiency in the majority of people. (4) For this reason, the percentage of the daily value (%DV) may appear lower on outdated product labels.■Below are the top 10 foods highest in vitamin B12, click here for an extended list of vitamin B12 rich foods, and here for other foods high in vitamin B.■If you are vegetarian, see the article on vegetarian sources of vitamin B12.

High Magnesium Foods■Magnesium is an essential mineral required by the body for muscle and nerve function, maintaining heart rhythm, building strong bones, and energy production. (1,2,3)■Magnesium is an electrolyte, and a deficiency in magnesium can lead to numbness, abnormal heart rhythms, and coronary spasms. (4) In the long term, magnesium deficiency increases the risk of stroke, Alzheimer's disease, Parkinson's disease, and migraine. (5)■High magnesium foods include dark leafy greens, seeds, beans, fish, whole grains, nuts, dark chocolate, yogurt, avocados, bananas, and more. The current daily value (DV) for magnesium is 420mg. (6,7)■Below is a list of high magnesium foods, for more, see the extended lists of magnesium rich foods, magnesium fruits, and magnesium vegetables.

Alpha-Carotene Foods■Alpha-Carotene is a precursor to creating vitamin A in the body, and while important, is far less common than beta-carotene.■Like beta-carotene, alpha-carotene is fat-soluble and therefore needs to be consumed with fat to be absorbed.■For every 24mcg of alpha-carotene you consume, you create 1mcg of vitamin A retinol activity equivalents (RAE). (1) The recommended daily allowance (RDA) for vitamin A is 900mcg of retinol activity equivalents (RAEs). While it would be unlikely to attain all your vitamin A from alpha-carotene, we calculate the daily intake target of alpha-carotene to be 24 times the amount of vitamin A (per the conversion to retinol equivalents). Thus the recommended dietary allowance for alpha-carotene is 900mcg x 24 or 21600mcg per day.■Again, you do not actually have to worry about meeting the RDA as beta-carotene, and vitamin A both contribute to the RDA, and the calculated RDA is intended as a guide to compare foods.■Foods high in alpha-carotene include orange vegetables like pumpkin, carrots, and winter squash. Other alpha-carotene food sources include tangerines, tomatoes, collards, napa cabbage, sweet potatoes, avocados, and bananas. Below are the top 10 foods highest in alpha-carotene, for more, see the nutrient ranking of foods high in alpha-carotene.

Beta Carotene Foods■Beta Carotene is a carotenoid compound responsible for giving fruits and vegetables their orange pigment. A powerful antioxidant, beta-carotene has been found to help protect against cancer and aging (however be

ta-carotene supplements can increase lung cancer risk for smokers). ■ Beta-carotene is a fat-soluble vitamin, so eating the following foods with a fat like olive oil or nuts can help absorption. Foods high in beta-carotene include sweet potatoes, carrots, dark leafy greens, butternut squash, cantaloupe, lettuce, red bell peppers, apricots, broccoli, and peas. There is no official recommended daily allowance (RDA) for beta-carotene, but a figure of 10800mcg per day can be used as a general target. ■ Below is a list of the 10 best beta-carotene foods. Use the nutrient ranking of over 200 foods high in beta-carotene to sort by 100 gram serving sizes and find even more foods.

Canned Fish Highest in Vitamin B12 (Cobalamin) ■ Vitamin B12, or Cobalamin, is an essential vitamin necessary for the maintenance of the nervous system and for preventing anemia. (1) Fish is a good source of vitamin B12, but what about canned fish? ■ Canned fish can be a great source of vitamin B12. Canned foods are typically more affordable than fresh, with greater availability. The downside is that canned foods often have a lot of added sodium, and may be packed in less desirable oils. As such, try to choose canned fish ■ without added salt and either packed in water or good quality olive oil. ■ Canned fish high in vitamin B12 includes canned oysters, clams, salmon, sardines, mackerel, crab, tuna, shrimp, cod, and anchovies. The values below are for a given serving size. 1 cup is a relatively large serving size, so if you don't usually eat this much at a time, you can simply divide the numbers in half to get the amount for half a cup (about 4 ounces). ■ The daily value (DV) for vitamin B12 is 2.4mcg per day. In 2016, this was reduced from 6mcg per day, because the scientific evidence shows that 2.4mcg is enough to prevent symptoms of deficiency in the majority of people. For this reason, the percentage of the daily value (%DV) may appear lower on outdated product labels. (2) ■ Use the nutrient ranking tool to search for fish high in vitamin B12 by a standard serving size, like 100 grams or 200 calories. For different kinds of foods, see the article on foods high in vitamin B12.

Cheese High in Vitamin B12 ■ Cheese, in addition to being a good vegetarian source of protein, is also a great natural source of vitamin B12 for vegetarians. ■ Below is a list of 15 types of cheese ranked by their amount of vitamin B12. Whole milk Swiss Cheese provides the most B12 with 0.9mcg (36% DV) per ounce. An ounce of cheese is equal to 28 grams or about a slice of cheese which is large enough to cover a piece of bread. Other types of cheese high in vitamin B12 include Gjetost, Mozzarella, Tilsit, Feta, and Brie. ■ The daily value (DV) for vitamin B12 is 2.4mcg per day. In 2016, this was reduced from 6mcg per day, because the scientific evidence shows that 2.4mcg is enough to prevent symptoms of deficiency in the majority of people. For this reason, the percentage of the daily value (%DV) may appear lower on outdated product labels. (1) ■ For more information, see the article on natural vegetarian sources of vitamin B12, and the complete list of dairy foods high in vitamin B12.

High Choline Foods ■ Choline is an essential nutrient necessary for a wide range of functions including cellular maintenance, liver function, creating neurotransmitters, and regulating homocysteine metabolism. (1,2) ■ Due to its role in brain development in the early stages of life, adequate choline levels are particularly essential for pregnant women. (3,4) ■ While rare, a deficiency in choline often causes an increase in the levels of certain liver enzymes in the blood, which indicates liver damage. Besides the liver, the heart and nervous system are also affected by choline.

e deficiency. (2)■While more research needs to be conducted, preliminary studies suggest that the health benefits of adequate choline intake include a reduced risk of dementia and cancer. (1,5,6)■Note: As with many nutrients, more choline is not always better, and it's possible to get too much. The tolerable upper limits are 1000mg per day for children, 2000mg for teenagers, and 3500mg for adults. (3)■High choline foods include lean chicken, fish, lean pork, eggs, beef, shrimp, beans, low-fat milk, broccoli, and green peas. The daily value (DV) for choline is 550mg per day. (7)■Below is a list of common foods high in choline. For more see the extended list of choline rich foods, and the complete ranking of 200 foods high in choline.

High Folate (B9) Foods■Vitamin B9 (folate) is required for numerous body functions, including DNA synthesis and repair, cell division, and cell growth. (1,2)■Folic acid is the synthetic form of vitamin B9 found in fortified foods, like cereals, and supplements.■A deficiency of folate can lead to a form of anemia in adults and slower development in children. For pregnant women, folate is especially important for proper fetal development and preventing neural tube defects. (3)■High folate foods include beans, lentils, asparagus, spinach, broccoli, avocado, mangoes, lettuce, sweet corn, oranges, and whole wheat bread. The current daily value (DV) for folate (Vitamin B9) is 400mcg. (4)■Below are the 10 best foods high in folate. For more see the extended list of folate rich foods, and the complete list of over 200 foods high in folate.

High Lutein and Zeaxanthin Foods■Lutein and zeaxanthin are carotenoids known for giving vegetables their green or orange colors. Like other carotenoids, lutein and zeaxanthin are thought to play a role in maintaining eye health and preventing macular degeneration.■Foods high in lutein and zeaxanthin include dark leafy greens, peas, summer squash, pumpkin, brussels sprouts, broccoli, asparagus, lettuce, carrots, and pistachios. For more foods, see the nutrient ranking of all foods high in lutein and zeaxanthin.

High Lycopene Foods■Lycopene is currently the most powerful antioxidant which has been measured in food (2) and is thought to play a role in preventing cancer, heart disease, and macular degeneration (3,4,5,6,7,8). How large a protective role lycopene plays is a controversial issue, still under scientific study.■Lycopene is a carotenoid that gives many fruits and vegetables their red color. Eating lycopene in excess amounts can cause the skin and liver to have a yellow color. Unlike other carotenes, lycopene does not get converted into vitamin A.■There are no known symptoms of a lycopene deficiency, and no daily value (DV) for lycopene.■High lycopene foods include guavas, cooked tomatoes, watermelon, grapefruit, papaya, sweet red peppers, persimmon, asparagus, red cabbage, and mangos.

High Niacin Foods (B3) Foods■Vitamin B3, or niacin, is an essential vitamin required for processing fat in the body, lowering cholesterol levels, and regulating blood sugar levels. (1,2)■While rare, a deficiency of niacin leads to pellagra, a condition characterized by diarrhea, dermatitis, dementia, inflammation of the mouth, amnesia, delirium, and if left untreated, death. (3,4) Even a slight deficiency of niacin can lead to irritability, poor concentration, anxiety, fatigue, restlessness, apathy, and depression. (5)■Niacin is a water-soluble vitamin that is well regulated by the body, thus overdose is rare and generally only occurs when niacin is taken in the form of high-dose supplements. An overdose of niacin leads to skin rashes (flush), dry skin, and various digestive maladies. (6) Over time, consistently taking high dose

s of niacin can lead to liver damage. (7)■High niacin foods include fish, chicken, turkey, pork, beef, mushrooms, brown rice, peanuts, avocados, green peas, and avocados. The current daily value (DV) for niacin is 16mg. (8)■Below are the top 10 foods highest in niacin ranked by common serving sizes. For more, see the complete list of 200 foods high in niacin, and lists of other foods high in B vitamins.

High Pantothenic Acid Foods (B5)■Vitamin B5, or Pantothenic Acid, is an essential vitamin required by the body for producing energy from carbohydrates and fats, creating certain neurotransmitters and hormones, and making red blood cells. (1)■A deficiency of vitamin B5 is rare, but may increase the risk of neurodegenerative diseases like Alzheimer's disease. (1,2) ■Vitamin B5 is a water-soluble vitamin. This makes it easy for the body to eliminate any excess, so overdose is rare. In general, it will only cause minor symptoms, like diarrhea or other digestive disturbances. (3,4)■Foods high in vitamin B5 include mushrooms, fish, avocados, eggs, lean chicken, beef, pork, sunflower seeds, milk, sweet potatoes, and lentils. The current daily value (DV) for Pantothenic Acid (vitamin B5) is 5mg. (5)■Below is a list of high vitamin B5 foods ranked by a common serving size. See the nutrient ranking of all foods high in vitamin B5 to sort by 100 gram serving sizes.

High Riboflavin (B2) Foods■Vitamin B2, or riboflavin, is an essential vitamin required for energy metabolism, immune system function, and maintenance of healthy skin, and hair. (1)■Riboflavin has also been associated with reducing the risk of cancer, and is believed to have anti-aging effects. (2)■While rare, a deficiency of riboflavin can create health problems that lead to hyperglycemia, hypertension, and diabetes mellitus. (3) Further deficiency can lead to cracking and reddening of the lips, inflammation of the mouth, mouth ulcers, sore throat, and even iron deficiency anemia. (3,4) ■Riboflavin is a water-soluble vitamin that is well regulated by the body, thus overdose is rare, and usually only occurs with vitamin B2 injections or supplements.■Foods high in riboflavin include beef, tofu, milk, fish, mushrooms, pork, spinach, almonds, avocados, and eggs. The current daily value (DV) for riboflavin (Vitamin B2) is 1.3mg. (5)■Below is a list of high riboflavin foods sorted by a common serving size. Use the complete nutrient ranking of all foods high in riboflavin to sort by 100 grams or a 200 calorie serving size.

High Vitamin A Foods■Vitamin A is a fat-soluble vitamin with several important functions in the body. It helps cells reproduce normally, is involved in healthy reproductive function and normal growth and development of the embryo and fetus. It is also required for the maintenance of good vision, immune system function, and keeping skin healthy.■A deficiency of vitamin A can lead to blindness and increased viral infection. However, deficiency is only considered a problem in developing countries, where it is a leading cause of blindness in children.■Overconsumption of vitamin A can lead to jaundice, nausea, loss of appetite, irritability, vomiting, and even hair loss.■High vitamin A foods include sweet potatoes, carrots, fish (tuna), winter squashes, dark leafy greens, cantaloupe, lettuce, bell peppers, pink grapefruit, and broccoli. The current daily value (DV) for Vitamin A is 900mcg of retinol activity equivalents (RAEs).■Below is a list high vitamin A foods, click here for over 200 foods high in vitamin A, sortable by common serving size, 200 calorie serving size, or 100 gram serving size.

High Vitamin B1 Foods■Thiamin (also known as thiamine or vitamin B1) is an essential nutrient required by the body for

maintaining cellular function and metabolism. Consequently, it's crucial for the function of a wide array of organs, including the brain. (1)■While rare, a deficiency of thiamin leads to widespread degeneration of the body, particularly the nervous and circulatory systems. (2,3)■A deficiency of thiamin is known as beriberi. One specific type affects primarily the central nervous system, and is known as Wernicke-Korsakoff syndrome. Besides the nervous system, beriberi can also have a severe impact on the cardiovascular system, along with other body systems. (2) Worldwide, beriberi is most common in places where non-enriched white rice or other refined grains make up a large part of the diet. (3)■Over-consumption of thiamin is unknown and at least one study shows that amounts taken well in excess of the daily value (DV) may actually enhance brain functioning. (4) In fact, it appears that thiamin supplements may help to prevent Alzheimer's disease, although more research is needed in this area. (5,6)■Foods high in thiamin include pork, fish, seeds, nuts, beans, green peas, tofu, brown rice, squash, asparagus, and seafood. The current daily value (DV) for vitamin B1 is 1.2mg. (7)■Below is a list of high thiamin foods ranked by a common serving size. Use the nutrient ranking of all foods high in thiamin to sort by nutrient density (100-gram serving size).■Looking for more foods high in B Vitamins? Click here for other vitamin B foods.

High Vitamin B12 Foods

■Vitamin B12, or Cobalamin, is necessary for many different processes throughout the body, including making DNA and creating energy in our cells. (1) A deficiency of vitamin B12 can lead to a variety of symptoms, including anemia, fatigue, mania, and depression. A long-term deficiency can cause permanent damage to the brain and other parts of the nervous system. (2)■Vitamin B12 is created by bacteria and can only be found naturally in animal products. (1) However, synthetic forms are widely available and added to many foods such as packaged cereals.■Vitamin B12 is a water-soluble vitamin, so the body is able to easily get rid of excess. This is why it's considered a safe vitamin, and there is no established upper limit for consumption. However, extremely high doses can cause bothersome symptoms. (3)■The liver stores enough vitamin B12 to last for several years, which is why it usually takes a long time for a person to realize that they have a deficiency of this vitamin.(1)■High vitamin B12 foods include clams, fish, crab, low-fat beef, fortified cereal, fortified soymilk, fortified tofu, low-fat dairy, cheese, and eggs. The daily value (DV) for vitamin B12 is 2.4 mcg per day. In 2016, this was reduced from 6mcg per day, because the scientific evidence shows that 2.4mcg is enough to prevent symptoms of deficiency in the majority of people. (4) For this reason, the percentage of the daily value (%DV) may appear lower on outdated product labels.■Below are the top 10 foods highest in vitamin B12, click here for an extended list of vitamin B12 rich foods, and here for other foods high in vitamin B.■If you are vegetarian, see the article on vegetarian sources of vitamin B12.

High Vitamin B6 Foods

■Vitamin B6 is a water-soluble vitamin necessary for processing amino acids in the body, which form the building blocks of proteins and some hormones. It is involved in red blood cell metabolism, proper functioning of the nervous and immune systems, and various other bodily functions. (1,2)■There are several compounds that are all considered to be vitamin B6, including pyridoxine, pyridoxal, and pyridoxamine. All of these can be converted in the body into the active form of the vitamin, so they're biologically equivalent.■While rare, a

ong-term deficiency in vitamin B6 can lead to skin inflammation and may increase the risk of heart disease. (2,3)■Foods high in vitamin B6 include fish, chicken, tofu, pork, beef, sweet potatoes, bananas, potatoes, avocados, and pistachios. The daily value (DV) for vitamin B6 is 1.7mg per day. (4)■Below is a list of high vitamin B6 foods sorted by a common serving size, see the nutrient ranking of all foods high in vitamin B6 to sort by 100 grams or 200 calories.

High Vitamin C Foods

■Vitamin C is an essential nutrient required for the maintenance of many body tissues, including skin, blood vessels, bones, and cartilage. Vitamin C is also essential for wound healing. (1,2)■Vitamin C helps protect cells against oxidative stress, which in turn provides protection against certain diseases, including cancer. (1,3)■Vitamin C, like zinc and vitamin A, also helps support your immune system. (4,5,6)■High vitamin C foods include guavas, bell peppers, kiwifruit, strawberries, oranges, papayas, broccoli, tomatoes, kale, and snow peas. The current daily value (DV) for vitamin C is 90mg. (7)■Below is a list of high vitamin C foods ranked by a common serving size. Use the nutrient ranking of over 200 foods high in vitamin C to see the foods highest in vitamin C by nutrient density (per gram), or see rankings of fruits high in vitamin C, and vegetables high in vitamin C.

High Vitamin E Foods

■Vitamin E is a group of 8 fat-soluble vitamins, which protect cell membranes and other fat-soluble tissues in the body against damage from oxidative stress. (1)■While rare, vitamin E deficiency can lead to poor reflex control, muscle weakness, and fatigue. Over time severe deficiency can lead to complete blindness, dementia, and cardiac arrhythmias. (2)■Conversely, too much vitamin E from supplements can lead to excessive bleeding. (3) Vitamin E foods, like the ones listed below, are generally considered to be safe and healthy, with a very low risk of consuming too much of this vitamin.■In general, consuming adequate amounts of vitamin E promotes the health of the immune system, skin, hair, and liver. (4,5,6,7,8,9,10)■Studies are mixed on the protective effect of vitamin E as related to heart disease, macular degeneration, and cancer. (11,12,13) Some results suggest that high doses of vitamin E supplements (alpha-tocopherol) can even increase the risk of cancer. (13) The good news is that vitamin E from diet alone carries the most protective benefit. (13) This is believed to be due to the fact that multiple different forms of vitamin E are found in foods, while most supplements contain only a single form.■Foods high in vitamin E include sunflower seeds, almonds, spinach, avocados, squash, kiwifruit, trout, shrimp (prawns), olive oil, wheat germ oil, and broccoli. The current daily value (DV) for vitamin E is 15mg. (14) Vitamin E is also lipid soluble, which means that fats in your diet will help you absorb vitamin E.■Below is a list of foods high in vitamin E sorted by a common serving size. For more, see the list of vitamin E rich foods sorted by a 100-gram serving, and the list of vitamin E rich foods sorted by a 200 calorie serving size.

High Vitamin K Foods

■Vitamin K is an essential vitamin required for protein modification and blood clotting. (1)■Recent studies suggest that vitamin K may play a role in treating osteoporosis and Alzheimer's. (2,3) and that consuming increased levels of vitamin K can help protect against cancer and heart disease. (4,5)■Unless you are taking medication to prevent blood clots, like Warfarin or Coumadin, there is no known risk of vitamin K toxicity, and no reason not to eat a lot of it. If you are on Warfarin (Coumadin), please check the article on low vitamin K fo

ods for a Warfarin diet.■Foods high in vitamin K include leafy green vegetables (cooked and raw), broccoli, Brussels sprouts, cabbage, pickled cucumber, asparagus, kiwifruit, okra, green beans, and salad greens like lettuce. The current daily value (DV) for Vitamin K is 120 micrograms (mcg). (6,7)■Below is a list of foods high in vitamin K sorted by a common serving size. For more, see the extended list of less common foods rich in vitamin K, or view, sort, and filter vitamin K foods using the nutrient ranking tool which lists over 200 foods high in vitamin K. The Top 15 Foods Highest in Vitamins■Want to know which foods are the best sources of vitamins? We looked at all our top 10 lists for 14 different vitamins, including: Vitamins A, B1, B2, B3, B5, B6, B9, B12, C, D, E, K, Beta Carotene, and Lycopene and counted how many times each food appeared.■Since some vitamins are fat soluble (need fat to be absorbed) meats, oils, and dairy tend to be a better source than leafy vegetables or fruits. The top 15 foods highest in vitamins include fish, dark leafy greens, seeds, broccoli, pork, beef, lamb, mushrooms, nuts, eggs, sweet bell peppers, avocados, peas, winter squash, and fruits.■Want to know more? Check the extended list of vitamin rich foods, or the complete collection of the most nutritious foods lists.

Vitamin B12 Foods for Vegetarians■Vitamin B12 is an essential vitamin needed for proper development and functioning of the nervous system. (1)■A deficiency in vitamin B12 can lead to weight loss, constipation, and anemia. Numbness (tingling) in hands and feet may also occur in addition to depression, dementia, and memory loss. (2)■Vitamin B12 is created by bacteria and can only be found naturally in animal products. (1) Fortunately, a wide variety of plant foods are fortified with vitamin B12. Furthermore dairy, eggs, and cheese are all good natural sources of vitamin B12.■Vegetarian foods high in vitamin B12 include fortified cereals, fortified fruit juices, fortified tofu, yogurt, milk, cheese, eggs, vitamin water, and whey powder. The daily value (DV) for vitamin B12 is 2.4mcg per day. In 2016, this was reduced from 6mcg per day, because the scientific evidence shows that 2.4mcg is enough to prevent symptoms of deficiency in the majority of people. (3) For this reason, the percentage of the daily value (%DV) may appear lower on outdated product labels. ■Vitamin B12 is a water-soluble vitamin, so the body is able to easily get rid of excess. This is why it's considered a safe vitamin, and there is no established upper limit for consumption. However, extremely high doses can cause bothersome symptoms.■The liver stores enough vitamin B12 to last for several years, which is why it usually takes a long time for a person to realize that they have a deficiency of this vitamin. (4)■Below are the top 10 vegetarian foods highest in vitamin B12. For more see the lists cereals high in vitamin B12, and cheeses high in vitamin B12.

Vitamin D Foods■Vitamin D is an essential vitamin required by the body for the absorption of calcium, bone development, immune functioning, and alleviation of inflammation. (1,2,3)■Vitamin D deficiency can lead to rickets, a weakened immune system, increased cancer risk, poor hair growth, and osteomalacia. (4,5,6)■Excess vitamin D can cause the body to absorb too much calcium, increasing the risk of kidney stones. (7,8)■The current daily value (DV) for vitamin D is 20 mcg (micrograms) (800IU) per day and the toxicity threshold is thought to be 250 to 1000 mcg/day. (9,10) Sometimes vitamin D values are given in IU (International Units). When this is the case remember that 1mcg=40IU for Vitamin D. (9)■Vitamin D is made by the body when the skin is exp

used to sunlight and is therefore called the sunshine vitamin. Sun exposure (dermal synthesis) is the primary source of vitamin D for most people. (11) Depending on the season and where you live, sunlight may not help your body create enough vitamin D. Further, elderly people often do not synthesize as much vitamin D. (12) ■ Vitamin D is fat-soluble, which means you need to eat fat to absorb it. Foods high in vitamin D include fish, mushrooms exposed to sunlight, fortified milk, fortified milk substitutes, fortified tofu, fortified yogurt, fortified breakfast cereals, fortified orange juice, pork chops, and eggs. ■ Vitamin D is not naturally found in many foods which is why so many foods are fortified with vitamin D. This means that vitamin D has been added to various foods for the benefit of the general public. Foods that are fortified with vitamin D also tend to be high in calcium. ■ Below is a list of the top 10 foods highest in vitamin D by common serving size. For more see the lists of foods high in vitamin D2, vitamin D3, and the nutrient ranking of 200 foods high in vitamin D.

10 Low Electrolyte Foods for People with Chronic Kidney Disease ■ Electrolytes are essential nutrients necessary for maintaining a proper balance of hydration and pH in the body. (1) However, for those diagnosed with chronic kidney disease, limiting some or all electrolytes may be necessary. (2) ■ Electrolytes for the body include sodium (NA), potassium (K), calcium (CA), magnesium (MG), phosphorus (P), and chloride (CL). (1) Sodium and chloride constitute table salt and therefore are widely found in modern diets. ■ Foods low in electrolytes include refined oils, honey, certain boiled and drained vegetables, low mineral water, certain fruits, and for protein: egg whites. (3) Below are 10 foods low in electrolytes. For more, see the articles on low potassium foods, and low phosphorus foods.

Foods High in Electrolytes ■ Electrolytes are vital nutrients needed for maintaining the correct balance of water and pH in the body. (1) ■ Key electrolytes include sodium (Na), potassium (K), calcium (Ca), magnesium (Mg), Phosphorus (P), and Chloride (Cl). (1) Sodium and chloride constitute table salt and therefore are widely found in modern diets. ■ For the purpose of this article, we will list foods high in sodium, potassium, calcium, magnesium, and phosphorus. In order to avoid bias, we will only rank foods without added sodium, with the exception of pickles. ■ Foods high in electrolytes include milk, yogurt, soymilk, squash, cheese, green leafy vegetables, pickles, coconut water, and celery. (2)

Foods Low in Phosphorus for People with Kidney Disease ■ Phosphorus is an essential mineral that makes up around 1% of a person's body weight, most of which is in bones and teeth. ■ People with chronic kidney disease (CKD) typically have to restrict and monitor their intake of phosphorus. Most refined oils, fruits, vegetables, and refined grains are low in phosphorus. People should avoid eating meat, which typically contain more easily absorbed phosphorus than found in plants. Since meats are restricted in a CKD diet, egg whites can be a good low-phosphorus source of protein. Soymilk may also work. ■ The National Kidney Foundation cautions people with CKD to avoid preservatives and additives which use phosphorus. Phosphorus is added to a lot of foods, check ingredient labels for anything with the letters PHOS that includes: Dicalcium phosphate Disodium phosphate Monosodium phosphate Phosphoric acid Sodium hexameta-phosphate Trisodium phosphate Sodium tripolyphosphate Tetrasodium pyrophosphate The list below is a sample of foods low in phosphorus that are also low in other minerals (sodium, potassium, etc...) typically restricted on a CKD diet

.Note: The current daily value (DV) for phosphorus is 1250mg. (1) This is a target meant for healthy people and is the %DV you will see on product labels in the United States. People with kidney disease should eat far less phosphorus. Please use the percent daily value in this article only as a guide to compare foods and not as a target!■The list below is a sample of foods low in phosphorus that are also low in other minerals (sodium, potassium, etc...) typically restricted on a CKD diet.■Note : The current daily value (DV) for phosphorus is 1250mg. (1) This is a target meant for healthy people and is the %DV you will see on product labels in the United States. People with kidney disease should eat far less phosphorus. Please use the percent daily value in this article only as a guide to compare foods and not as a target!

Foods Low in Potassium for People with Chronic Kidney Disease■The kidneys regulate potassium (and all electrolyte) levels in your body. For those diagnosed with chronic kidney disease (CKD) you may have to limit consumption of potassium and other electrolytes. (2)■The list below serves as a suggestion of low potassium foods for your diet and is for informational purposes only. Please work with your primary care provider to establish a proper diet.■Note: The current daily value (DV) for potassium is 4700 milligrams (mg), recently raised from 3500mg by the FDA. (1) This is a target meant for healthy people and is the %DV you will see on product labels in the United States. People with kidney disease should eat less potassium. Please use the percent daily value in this article only as a guide to compare foods and not as a target!■Generally people with CKD should watch their protein intake, as well as intake of other electrolytes. Since other electrolytes should also be watched, the amounts of sodium, phosphorus, magnesium, and calcium are also listed below each food in this list.■Foods low in potassium include most refined fats and oils, grains like cornmeal, white rice, and pasta, cheeses like soft goat cheese, and blueberries, eggs, leeks, Napa cabbage, and chia seeds. Boiling vegetables in water and discarding the water can help reduce their potassium and electrolyte content. Further, you can also leech more minerals out by soaking vegetables in water before consumption.■For more information on a CKD diet see the article from Medline Plus and Kidney.org. For more low potassium food ideas see the nutrient ranking tool, nutrient ratio tool, and the list of low potassium vegetables.■

Fruits and Vegetables High in Iron■Iron is an essential mineral used to transport oxygen around the body in the form of hemoglobin. A slight deficiency of iron causes anemia (fatigue/weakness), and a chronic deficiency can lead to organ failure.■Conversely, too much iron leads to the production of harmful free radicals and interferes with metabolism causing damage to organs like the heart and liver. Iron which comes from fruits and vegetables is well regulated by the body, so overdose is rare and usually only occurs when people take supplements.■Contrary to popular belief, fruits and vegetables can be a good source of iron. In addition, vitamin C is abundant in fruits and vegetables, and helps increase the absorption of iron into the body.■Fruits and vegetables high in iron include dried fruits, dark leafy greens, podded peas, asparagus, button mushrooms, acorn squash, leeks, dried coconut, green beans, and raspberries. The current daily value (DV) for iron is 18 milligrams (mg).■Below is a list of fruits and vegetables high in iron, for more, see the extended list of iron rich fruits and vegetables, and the top 10 vegetarian foods highest in iron.

High Calcium Foods■Calcium i

s a mineral necessary for the growth and maintenance of strong bones, strong teeth, nerve signaling, muscle contraction, and secretion of certain hormones and enzymes. (1,2,3,4) ■ Calcium is an electrolyte, and a deficiency in calcium can lead to numbness in the fingers and toes, muscle cramps, convulsions, lethargy, loss of appetite, and abnormal heart rhythms. (5,6) A long-term calcium deficiency can lead to bone loss (osteopenia) and fragile bones (osteoporosis). (7) Vitamin D and Vitamin K are also important nutrients for preventing osteoporosis. (7) ■ Excess calcium (particularly from supplements) can lead to constipation and kidney stones. (8) In certain populations, calcium supplementation has been shown ■ to increase the risk of vascular diseases like stroke and heart attack. (9,10) ■ High-calcium foods include tofu, milk, yogurt, cheese, leafy greens, beans, clams, okra, trout, and acorn squash. The daily value (DV) for calcium is 1300mg. (11,12) ■ Evidence suggests that phytic acid and oxalic acid in beans and greens can hinder calcium absorption. However, some green vegetables and beans are still good sources of calcium. (13,14) Further the calculated daily value (DV) already takes into account absorption and bio-availability. (12) For more info, see the section on calcium absorption. ■ Below is a list of high calcium foods ranked by common serving size, for more see the nutrient ranking of over 200 foods high in calcium. Also see the lists of high calcium vegetables, and high calcium fruits.

High Calcium Fruits ■ Calcium is a mineral necessary for the growth and maintenance of strong bones, strong teeth, nerve signaling, muscle contraction, and secretion of certain hormones and enzymes. (1,2,3,4) ■ Calcium is an electrolyte, and a deficiency in calcium can lead to numbness in the fingers and toes, muscle cramps, convulsions, lethargy, loss of appetite, and abnormal heart rhythms. (5,6) A long-term calcium deficiency can lead to bone loss (osteopenia) and fragile bones (osteoporosis). (7) Vitamin D and Vitamin K are also important nutrients for preventing osteoporosis. (7) ■ Fruits high in calcium include calcium-fortified orange juice, prickly pears, tangerines, oranges, kiwifruit, mulberries, blackberries, guavas, papaya, and passion fruit. The daily value (DV) for calcium is 1300mg. (8,9) ■ Below is a list of calcium-rich fresh fruits by common serving size, dried fruits are listed separately due to their high sugar content. Click here to see the section of dried fruits high in calcium. Also check the list of foods high in calcium, and vegetables high in calcium. ■ You can also view the list of over 100 fruits high in calcium using the nutrient ranking tool.

High Calcium Vegetables ■ Calcium is a mineral necessary for the growth and maintenance of strong bones, strong teeth, nerve signaling, muscle contraction, and secretion of certain hormones and enzymes. (1,2,3,4) ■ Calcium is an electrolyte, and a deficiency in calcium can lead to numbness in the fingers and toes, muscle cramps, convulsions, lethargy, loss of appetite, and abnormal heart rhythms. (5,6) A long-term calcium deficiency can lead to bone loss (osteopenia) and fragile bones (osteoporosis). (7) Vitamin D and Vitamin K are also important nutrients for preventing osteoporosis. (7) ■ Finding calcium in vegetables and fruits is a concern for vegans, people on a raw food diet, or people who simply want to eat a varied plant-based diet. While there is some evidence that oxalates in vegetables can hinder calcium absorption, they are still a good source of calcium. Kale shows similar calcium absorbability to that of milk, (8) and soybeans are also a good source. (9) For more, see the section on calcium absorption. ■ Vegetables

high in calcium include collard greens, turnip greens, kale, mustard greens, beet greens, bok choy, okra, Swiss chard, and broccoli raab. The daily value (DV) for calcium is 1300mg. (10,11)■Note: Spinach and collard greens are high in both calcium and oxalates. An estimated 5% of the calcium is absorbed from spinach vs 40% from kale. (12,8) For this reason, spinach and collard greens are omitted from this curated list.■Below is a list of high-calcium vegetables by common serving size, for more see the list of high-calcium fruits and high-calcium foods.■You can also see 200 vegetables high in calcium using the nutrient ranking tool.

High Copper Foods■Copper is an essential trace mineral required by the body for energy production, absorption of iron, bone and connective tissue production, immune system function, synthesis of some hormones and red blood cell formation. (1) It also forms part of one of the body's key antioxidant enzymes superoxide dismutase (SOD).■A deficiency in copper can lead to weak bones, joint pain, vitamin b12 deficiency, iron deficiency, and anemia. (2)■Conversely, over-consumption of copper will lead to cramps, diarrhea, and vomiting in the short term, and can have neurological (mental) effects in the long term. (3)■High copper foods include seafood, mushrooms, tofu, sweet potatoes, sesame seeds, cashews, chickpeas, salmon, dark chocolate, and avocados. (4)■The current daily value (DV) for copper is 0.9mg. (5)■Below is a list of high copper foods, for more, see the extended list of copper rich foods, high copper vegetables, and high copper fruits.

High Copper Fruits■An adequate intake of copper is necessary for a healthy immune system and healthy bones. Copper also works with iron to create blood cells and reduce the risk of anemia. (1)■Fruits can be a good source of fiber, protein, iron, and even copper.■Fruits high in copper include durian, avocados, guavas, pomegranates, blackberries, kiwifruit, mangos, pineapples, apricots, and bananas. (2) The current daily value (DV) for copper is 0.9mg. (3)■For more high copper fruits see the extended list of less common fruits rich in copper and dried fruits high in copper.

High Copper Vegetables■Vegetables comprise some of the most nutrient dense foods in our diets and copper is one of the many important nutrients they contain.■Copper is an essential nutrient, responsible for producing blood cells, preventing anemia, and strengthening our bones. (1)■Vegetables high in copper include mushrooms, sweet potatoes, lima beans, turnip greens, beet greens, spinach, soybean sprouts, asparagus, artichokes, and green peas. (2)■The current daily value (DV) for copper is 0.9mg. (3)■For more high copper vegetables see the extended list of less common vegetables rich in copper.

High Iodine Foods■Iodine is a chemical element essential for the production of thyroid hormones that regulate growth and metabolism. Diets deficient in iodine increase the risk of retarded brain development in children (cretinism), mental slowness, high cholesterol, lethargy, fatigue, depression, weight gain, and goiter: a swelling of the thyroid gland in the neck. Please note that both too much and too little iodine can cause hypothyroidism, for more information, see the section on hypothyroidism.

High Iron Foods■Iron is an essential mineral used to transport oxygen around the body in the form of hemoglobin. A slight deficiency in iron causes anemia (fatigue/weakness), and a chronic deficiency can lead to organ failure. (1)■Conversely, too much iron leads to the production of harmful free radicals, and interferes with metabolism, causing damage to organs like the heart and liver. (1)■The body is able to regulate the uptake of iron, so overdose is

rare and usually only occurs when people take supplements. Iron from natural food sources, like the ones listed below, are considered safe and healthy. ■ Foods high in iron include fortified cereals, beef, shellfish, dried fruit, beans, lentils, dark leafy greens, dark chocolate, quinoa, mushrooms, and squash seeds. The current daily value (DV) for iron is 18 milligrams (mg). (2) ■ Below is a list of high iron foods. For more high iron foods see: High Magnesium Foods ■ Magnesium is an essential mineral required by the body for muscle and nerve function, maintaining heart rhythm, building strong bones, and energy production. (1,2,3) ■ Magnesium is an electrolyte, and a deficiency in magnesium can lead to numbness, abnormal heart rhythms, and coronary spasms. (4) In the long term, magnesium deficiency increases the risk of stroke, Alzheimer's disease, Parkinson's disease, and migraine. (5) ■ High magnesium foods include dark leafy greens, seeds, beans, fish, whole grains, nuts, dark chocolate, yogurt, avocados, bananas, and more. The current daily value (DV) for magnesium is 420mg. (6,7) ■ Below is a list of high magnesium foods, for more, see the extended lists of magnesium rich foods, magnesium fruits, and magnesium vegetables. High Magnesium Fruits ■ Magnesium is an essential mineral required by the body for muscle and nerve function, maintaining heart rhythm, building strong bones, and energy production. (1,2,3) ■ Magnesium is an electrolyte, and a deficiency in magnesium can lead to numbness, abnormal heart rhythms, coronary spasms. (4) In the long term, magnesium deficiency increases the risk of stroke, Alzheimer's disease, Parkinson's disease, and migraine. (5) ■ Fruits are high in fiber and are also a very good source of potassium in addition to magnesium. ■ Fruits high in magnesium include dried figs, avocados, guavas, bananas, kiwi fruit, papayas, blackberries, raspberries, cantaloupes, and grapefruit. The daily value (DV) for magnesium 420mg per day. (6,7) ■ Below are the top 10 fruits highest in magnesium. For more, see the extended list of less common fruits rich in magnesium, high magnesium vegetables, and the article on high magnesium foods. High Magnesium Vegetables ■ Magnesium is an essential mineral required by the body for muscle and nerve function, maintaining heart rhythm, building strong bones, and energy production. (1,2,3) ■ Magnesium is an electrolyte, and a deficiency in magnesium can lead to numbness, abnormal heart rhythms, coronary spasms. (4) In the long term, magnesium deficiency increases the risk of stroke, Alzheimer's disease, Parkinson's disease, and migraine. (5) ■ Vegetables are an extremely nutrient dense food group and it is no surprise that vegetables are a good source of magnesium. ■ Vegetables high in magnesium include spinach, Swiss chard, lima beans, acorn squash, artichokes, kale, peas, okra, sweet corn, and potatoes. The daily value (DV) for magnesium is 420mg. (6,7) ■ See the top 10 vegetables high in magnesium below, and for more, see the extended list of less common vegetables rich in magnesium, list of high magnesium fruits, and the article on the top 10 high magnesium foods. High Manganese Foods ■ Manganese is an essential trace mineral required by the body for bone development, calcium absorption, healthy skin and blood sugar regulation. (1) It also helps activate superoxide dismutase (SOD), an important antioxidant enzyme. ■ Manganese deficiency is rare but can be expressed in poor bone health, joint pain, fertility problems and an increased risk of seizures. (1) ■ Overconsumption of manganese from food sources is also rare and can adversely affect the neurological system. (2) ■ Foods high in manganese include mussels, wheat germ, tofu, sweet potatoes, nuts, b

rown rice, lima beans, chickpeas, spinach, and pineapples. (3) The current daily value (DV) for manganese is 2.3mg. (4)■Below is a list of high manganese foods sorted by a common serving size, for more, see the complete nutrient ranking of over 200 foods high in manganese .

High Phosphorus Foods■Phosphorus is an essential nutrient required for proper cell functioning, regulation of calcium, strong bones and teeth , and for making ATP (adenosine triphosphate) a molecule that provides energy to our cells.■A deficiency of phosphorus can lead to lowered appetite, anemia, muscle pain, improper bone formation (rickets), numbness, and a weakened immune system. Phosphorus is found in almost every food, and as such, deficiency is rare.■Conversely consuming too much phosphorus causes the body to send calcium from the bones to the blood in an attempt to restore balance. This transfer of calcium weakens bones and can cause calcification of internal organs, increasing the risk of heart attack and other vascular diseases.■Some scientific research suggests that phosphorus is more easily absorbed from meat products and that you can only absorb half of the phosphorus contained in plant foods. The amount of phosphorus absorbed differs from person to person and the plant sources of phosphorus are still listed here and recommended.■Foods high in phosphorus include fish, pork, tofu, milk, chicken, scallops, lentils, squash seeds, beef, and whole grains. The daily value (DV) for phosphorus is 1250mg. (2)■Below is a list of high phosphorus foods by common serving size, use the complete nutrient ranking of phosphorus foods to sort by 100 gram or 200 calorie serving sizes.■People with chronic kidney disease looking to reduce phosphorus intake can also see the article on foods low in phosphorus.

High Potassium Foods■Potassium is an essential nutrient used to maintain fluid and electrolyte balance in the body. It also plays a critical role in the transmission of electrical impulses in the heart.■A deficiency in potassium causes fatigue, irritability, and hypertension (high blood pressure). (2) Unless you are on dialysis or have a special condition, an overdose of potassium from natural sources is nearly impossible. Signs of high potassium blood levels include weakness, paralysis, and heart palpitations. (2)■High potassium foods include leafy green vegetables, fish, white beans, avocados, potatoes, acorn squash, milk, mushrooms, bananas, and cooked tomatoes. The current daily value (DV) for potassium is 4700 milligrams (mg), recently raised from 3500mg by the FDA. (1)■Below is a list of high potassium foods ranked by common serving sizes, for more see the lists of high potassium foods by nutrient density, more potassium rich foods, fruits high in potassium, and vegetables high in potassium.■You can also sort high potassium foods by 100 gram and 200 calorie serving sizes using the nutrient ranking tool.■Looking to consume less potassium? See our list of low potassium foods.

High Potassium Fruits■Potassium is an essential nutrient used to maintain fluid and electrolyte balance in the body.■A deficiency in potassium causes fatigue, irritability, and hypertension (high blood pressure).■Overdose of potassium from natural sources is nearly impossible, however, it is possible to consume too much potassium via potassium salts which can lead to nausea, vomiting, and even cardiac arrest. Potassium from fruits, like the ones listed below, are considered safe and healthy.■For those with chronic kidney disease (CKD) who need to lower their potassium, this list can serve as a guide on what fruits to eat or avoid depending on your own restrictions. Most people with CKD should not consume more than 200mg of potassium.

ium per serving, or 2000mg per day. This article can only be used as a guide, but the amount of potassium you eat each day should be set by your care provider. See also our list of low potassium foods for more ideas.■Fruits high in potassium include avocados, guavas, kiwifruit, cantaloupe, bananas, pomegranate, apricots, cherries, and oranges. The current daily value (DV) for potassium is 4700mg, recently increased from 3500mg by the FDA.■Below is a list of fruits high in potassium, for more, see the extended lists of potassium rich fruits, dried fruits high in potassium, and articles on high potassium foods and high potassium vegetables.■You can also use the nutrient ranking tool to sort over 100 high potassium fruits.

High Potassium Nuts and Seeds

■Potassium is an essential nutrient necessary for maintaining cell signaling and electrolyte balance in all living things. Since potassium is so universally needed it is often found concentrated in plant foods.■Nuts and seeds typically do not have as much potassium as fruits and vegetables but can still be a good source.■High potassium nuts and seeds include coconut water, hemp seeds, sunflower seeds, pistachios, squash seeds, flax seeds, hazelnuts, almonds, Brazil nuts, and watermelon seeds. The current daily value (DV) for potassium is 4700mg, recently increased from 3500mg by the FDA.■See the list below for details on the 15 nuts and seeds with the most potassium. For more information, see the list of high potassium foods.

High Potassium Vegetables

■Potassium is an essential nutrient used to maintain fluid and electrolyte balance in the body.■A deficiency in potassium causes fatigue, irritability, and hypertension (increased blood pressure).■Overdose of potassium from natural sources is nearly impossible, however, it is possible to consume too much potassium via potassium salts which can lead to nausea, vomiting, and even cardiac arrest.■For those with chronic kidney disease (CKD) who need to lower their potassium, this list can serve as a guide on what vegetables to eat or avoid depending on your own restrictions. Most people with CKD should not consume more than 200mg of potassium per serving, or 2000mg per day. This article can only be used as a guide, but the amount of potassium you eat each day should be set by your care provider. See also our list of low potassium vegetables for more ideas.■Vegetables high in potassium include beet greens, lima beans, Swiss chard, potatoes, acorn squash, spinach, bok choy, mushrooms, tomatoes, and, sweet potatoes. The current daily value (DV) for potassium is 4700mg, recently increased from 3500mg by the FDA.■Below is a list of vegetables high in potassium, for more, see the articles on high potassium foods, and high potassium fruits.■You can also use the nutrient ranking tool to see the full list of 200 vegetables high in potassium, and sort by highest or lowest.

High Selenium Foods

■Selenium is an essential trace mineral. It is a constituent of selenoproteins that play important roles in the body including antioxidant protection, thyroid gland function, DNA synthesis, and roles in the immune system and reproduction.■A deficiency in selenium can lead to pain in the muscles and joints, unhealthy hair, and white spots on the fingernails. In long-term cases, it may even lead to Hashimoto's disease, a condition in which the body's own immune system attacks the thyroid.■An excess of selenium can lead to bad breath, diarrhea, and even hair loss.■Foods high in selenium include Brazil nuts, tuna, oysters, pork, beef, chicken, tofu, whole wheat pasta, shrimp, and mushrooms. The current daily value (DV) for selenium is 55mcg (micrograms).■It is important to note that the amount of selenium in a

ny product varies greatly by the amount of selenium in the soil in which it was produced/grown/raised. Be sure to check individual labels, and if you have a deficiency in selenium, get tested after changing your diet to be sure you are eating adequate amounts.■Below is a list of high selenium foods sorted by common serving size, please see the complete ranking of all foods high in selenium for more.

High Sodium Foods

■Sodium is an essential mineral required for maintaining fluid and electrolyte balance in the body, regulating blood pressure, and for the transmission of nerve impulses.■Deficiency of sodium is rare but can occur in people after excessive vomiting or diarrhea, in athletes who consume excessive amounts of water, or in people who regularly fast on juice and water.■Over-consumption of sodium is far more common and can lead to high blood pressure, which in turn increases the risk of heart attack and stroke.■The current daily value (DV) for sodium is 2300mg, however, the American Heart Association recommends that people with high blood pressure eat less than 1500mg per day or less than 3/4 of a teaspoon of salt.■Since sodium is required by all life to exist, it is naturally found in all foods and does not need to be added. Foods high in sodium include table salt, sauces, salad dressings, cured meats, bacon, pickles, bullion, instant soup, roasted salted nuts, snacks, fast foods, and canned foods.■Below is a list of high sodium foods. For more, see the extended lists of high sodium foods by nutrient density, list of high sodium foods to boost sodium levels, and the list of high sodium foods to avoid.

High Zinc Foods

■Zinc is an essential mineral forming a component of more than 300 enzymes in the body with functions including wound healing, immune system function, building proteins and DNA, fertility in adults, and growth in children. Zinc is also needed for maintaining the senses of smell and taste.■A deficiency in zinc can lead to stunted growth, diarrhea, impotence, hair loss, eye and skin lesions, impaired appetite, and depressed immunity.■Conversely, consuming too much zinc can lead to nausea, vomiting, loss of appetite, abdominal cramps, diarrhea, and headaches in the short term, and can disrupt the absorption of copper and iron in the long term.■If you have a zinc deficiency, then animal foods are better sources of zinc than plant foods. (2)■Foods high in zinc include oysters, beef, chicken, tofu, pork, nuts, seeds, lentils, yogurt, oatmeal, and mushrooms. The current daily value (DV) for zinc is 11mg.

High Zinc Fruits

■Zinc is an essential nutrient needed for wound healing and for proper immune function.■Zinc found in plant foods like fruits is not as bioavailable as zinc in animal foods, however, fruits can still be a good source of zinc, and there is no need to eat meats or take supplements.■The daily value (DV) for zinc is 11mg per day, but people on a plant-based diet should aim to consume 30mg. High zinc fruits include avocados, blackberries, pomegranates, raspberries, guavas, cantaloupes, apricots, peaches, kiwifruit, and blueberries. These fruits provide 2-12% of the daily value per cup.■The list below gives the 10 best high zinc fruits ranked by a common serving size. For more zinc foods, see the list of high zinc foods for vegans and vegetarians, high zinc vegetables, and the complete nutrient ranking of over 100 fruits high in zinc.

High Zinc Nuts and Seeds

■Zinc is an essential mineral with roles in immune function, protein synthesis, wound healing, DNA synthesis, and cell division.■Zinc is of particular interest to vegans and vegetarians since anti-nutrients like phytates limit the bioavailability and absorption of zinc from plant foods. Despite t

his, plant foods like nuts and seeds are still a good source of zinc.■Nuts and seeds high in zinc include squash seeds, pumpkin seeds, pine nuts, cashews, sunflower seeds, pecans, chia seeds, flax seeds, Brazil nuts, and almonds. The current daily value (DV) for zinc is 11mg.■Below is a list of the top 10 nuts high in zinc, ranked by a 1oz handful. For more see the article for vegan and vegetarian sources of zinc, and the complete nutrient ranking of over 50 high zinc nuts.

High Zinc Vegetables

■Zinc is an essential mineral forming a component of more than 300 enzymes in the body with functions including wound healing, immune system function, building proteins and DNA, fertility in adults and growth in children. Zinc is also needed for maintaining the senses of smell and taste.■A deficiency in zinc can lead to stunted growth, diarrhea, impotence, hair loss, eye and skin lesions, impaired appetite, and depressed immunity.■Conversely, consuming too much zinc can disrupt the absorption of copper and iron, as well as creating large amounts of toxic free radicals. It is easier to over-consume zinc from animal foods and supplements, from which it is more readily absorbed.■Vegans and vegetarians who primarily consume plant foods may have difficulty getting enough zinc, as zinc is not as bioavailable in plant foods as in animal foods. This is partly because beans and legumes contain phytates which can inhibit absorption. Despite this, plant foods are still a good source of zinc and there is no reason to eat meat or take a supplement.■The current daily value (DV) for zinc is 11mg, but vegetarians and vegans should aim to eat 30mg a day. Vegetables high in zinc include shiitake mushrooms, green peas, spinach, lima beans, lentil sprouts, asparagus, beet greens, broccoli, okra, and sweet corn.■Below is a list of high zinc vegetables ranked by common serving size, for more see the list of high zinc foods for vegans and vegetarians, high zinc fruits, and the nutrient ranking of 200 vegetables high in zinc.

Iron Foods for Vegetarians and Vegans

■Iron is an essential nutrient primarily needed for the transport of oxygen throughout the body. A deficiency of iron leads to weakness and anemia, commonly called iron deficiency anemia. Symptoms of iron deficiency anemia may take time to develop and include fatigue, weakness, anxiety, irritability, hair loss, and depression. Iron deficiency anemia is difficult to diagnose and requires a blood test.■Iron is more bio-available from heme (meat) sources than from non-heme (plant sources), so vegans and vegetarians are often concerned about their iron status and intake. The Institute of Health almost doubles the recommended daily allowances of iron for vegetarians from 11mg to 20mg of iron per day for adults. The daily value (DV) seen on most food labels also takes vegetarians into account and is set at 18mg per day. This amount of iron is a good goal for almost all individuals, except pregnant women, who should consume 27mg per day.■The good news is that the less iron you have the more your body will absorb, boosting the bioavailability of iron from all sources. Vitamin C found in plant foods also boosts iron absorption. The bad news is that nutrients like polyphenols in plant foods can block iron absorption. For information, see the section on iron absorption.■Vegetarian and vegan sources of iron include beans, lentils, tofu, dark leafy greens, dark chocolate, whole grains, mushrooms, seeds, nuts, pumpkin, squash, and salad greens. Eating a wide variety of these foods should ensure you get the 18mg daily value for iron. Below are the top 10 vegetarian and vegan iron food sources ranked by common serving size. For more, see the extended list of le

ss common iron foods and the article on fruits and vegetables high in iron.

Low Potassium Vegetables

■ For those diagnosed with chronic kidney disease (CKD) the shock of being diagnosed is often accompanied by dietary guidelines restricting the intake of potassium and other electrolytes. The next realization is that almost all vegetables contain some amount of potassium. ■ While this is true, there are a few vegetables that are lower in potassium, and the amount of potassium in vegetables can be further reduced by soaking the vegetables in water before cooking, in a process called leaching. This works well for vegetables that will be eaten raw. Cooked vegetables should be boiled, and the water they are boiled in should be discarded. ■ While the daily value (DV) for potassium is 4700 milligrams (mg), a vegetable can be considered to be "low potassium" if it has less than 200mg of potassium per serving (please watch portion sizes).

(2) The list of vegetables below serves as a suggestion of low potassium vegetables for your diet and is for informational purposes only. Please work with your primary care provider to establish a proper diet. ■ Note: Please use the percent daily value in this article only as a guide to compare foods and not as a target! ■ The amount of potassium in vegetables may vary based on the soil and conditions in which they are grown. The numbers below can be considered averages across the U.S. To be safe, incorporate new vegetables into your diet slowly and in small quantities. ■ Low potassium vegetables include cilantro, alfalfa sprouts, lettuce, arugula, kale, Napa cabbage, leeks, spaghetti squash, sweet onions, eggplant, and more. For more low potassium vegetable ideas, see the complete ranking of over 200 vegetables low in potassium. ■ Most vegetables are low in calories, and so should be eaten with other low potassium foods.

Low Sodium Foods for People with High Blood Pressure (Hypertension)

■ Sodium is an essential nutrient required by the body for maintaining blood volume and pressure and for transmitting nerve impulses. ■ Sodium, together with chloride forms table salt or sodium chloride. Processed foods are by far the largest contributor of sodium in the diet, accounting for about 80% of our total sodium intake. ■ Over-consumption of sodium increases the risk of developing high blood pressure (hypertension), which in turn increases the risk of heart disease and stroke. As such, it is wise to regulate the amount of sodium you eat, and if you have high blood pressure to restrict your consumption of sodium, while boosting your consumption of potassium. ■ The current daily value (DV) for sodium is 2300mg, however, the American Heart Association recommends that people with high blood pressure eat less than 1500mg per day or less than 3/4 of a tablespoon of salt. ■ Fortunately, almost all foods are naturally low in sodium and it is easy to avoid consuming sodium if you stick to eating whole unprocessed foods without adding any salt or sauces. So a low sodium diet could be seen as more of an exercise in avoiding high sodium foods, than eating low sodium foods. ■ Healthy low sodium foods include vegetables, fruits, beans, grains, legumes, nuts, meats, oils, and fish. Be sure foods are not canned, or otherwise prepared with salt, or sauces that contain salt. Below is an overview of the top 10 foods lowest in sodium for your blood pressure diet.

The Top 15 Foods Highest in Minerals

■ From calcium to zinc, iron to potassium, minerals keep your bones strong, and perform many essential functions in the body. ■ We looked through our food lists for 8 different minerals: calcium, copper, iron, potassium, phosphorus, magnesium, selenium, and zinc; and counted how many times each food appeared

red. We did not look at iodine, as the iodine content of foods is too dependent on soil quality. We also didn't include sodium, as most people should be focusing on avoiding their sodium.■The top 15 foods highest in minerals include nuts, beans and lentils, dark leafy greens, fish, seeds, shellfish, mushrooms, whole grains, low-fat dairy, beef and lamb, avocados, tofu, dark chocolate, cheese, and dried fruits. For more, check the extended list of mineral rich foods, and the most nutritious foods lists.

Zinc Foods for Vegetarians and Vegans

■Zinc is an essential nutrient required by the body for creating over 300 enzymes, and it is the most abundant metal in the body after iron.■Health benefits of zinc include enhanced immune function, faster wound healing, and possibly reduced duration of symptoms of the common cold. Beyond this, zinc is vital for the proper functioning of the human body in general.■Zinc deficiency can lead to hair loss, impotence, diarrhea, delayed wound healing, abnormal taste, and mental fatigue.■Vegans and vegetarians need to be especially aware of zinc, as zinc availability is lower in plant foods than in animal foods. Furthermore, the amount of zinc found in vegetables and other plant foods can vary greatly depending on the zinc content of the soil where they were grown.■While phytates, which are present in whole-grain breads, cereals, and legumes, do somewhat inhibit the absorption of zinc, these foods are still a good source of zinc. Vegans and vegetarians should be aware of this and aim to consume 200% of the daily value (DV) to compensate for the bioavailability of zinc.■Vegan and vegetarian sources of zinc include fortified cereals, wheat germ, tofu, lentils, yogurt, oatmeal, wild rice, squash seeds, and milk. The daily value (DV) for zinc is 11mg per day.■Below are 23 vegan and vegetarian foods high in zinc. For more, see the articles on high zinc nuts, high zinc fruits, and high zinc vegetables. You can also create your own list using the nutrient ranking of over 200 vegetarian foods high in zinc.

16 Nuts and Seeds High in Protein

■Nuts and seeds are a heart-healthy snack. Almonds, in particular, have been shown to lower cholesterol. In addition to being a good source of fiber and healthy fats, nuts can also be a good source of protein.■The current daily value (DV) for protein is 50 grams per day. (1) One ounce (1oz) of nuts or seeds is typically equivalent to a handful, or 2-3 tablespoons. Most nuts provide between 8 and 18% DV of protein per 1oz handful.■High protein nuts and seeds include hemp seeds, pumpkin seeds, peanuts, almonds, pistachios, sunflower seeds, flax seeds, sesame seeds, chia seeds, cashews, and more. Below is a list of 16 nuts and seeds high in protein. For more, see the extended list of less common nuts and seeds high in protein.

27 Plant Foods Highest in Protein per Net Carb

■Adopting a plant-based diet is gaining in popularity, not just for ethical reasons, but also for environmental sustainability, and health reasons. (1) At the same time, many people are adopting diets that limit their intake of carbohydrates, such as 'keto' or 'eco-Atkins' diets.■Low-carb diets are typically high in protein, as they often involve relatively high meat consumption. However, those following a low-carb plant-based diet may be concerned about getting enough nutrients, especially protein. There are many great plant sources of protein available that also have low net carbs.■The standard daily value (DV) for protein is 50 grams per day, but you may require more or less depending on your weight and activity level. (2)■The high protein plant foods below are ranked by protein to net carb ratio. High protein plant foods that are low in net-carbs include

lude soy foods, leafy greens, nuts, seeds, and sprouts. For more ideas, see the complete ranking of 200 vegan foods highest in protein per net-carb. **Gourmet Low Carb High Protein Weight Loss Meal Plans** ■ The following meal plans are designed for people who would like to lose weight and prefer a high protein, low carbohydrate approach. Although this is a low carbohydrate, high protein plan, some small servings of whole grain carbohydrate foods have been included, as carbohydrates are needed by the body for optimum health and energy production. The plans are designed to provide you with balanced nutrition, including some carbohydrates, high levels of lean protein, and healthy fats. They also include plenty of fruits and vegetables, plus essential nutrients such as vitamins, minerals, essential fats, and fiber. ■ Each day provides around 1500 calories, which is the amount required by an average woman looking to lose 1-2 lbs (0.5-1kg) per week, which is a healthy rate of weight loss. A steady rate of weight loss such as this is more likely to be maintained long-term than the faster weight loss promised by crash diets. ■ For men who would like to follow the plan, the total daily calorie intake should be increased by approximately 500 calories. This can be achieved by adding extra snacks and/or doubling some of the portion sizes, as shown in the example below: ■ You can also add snacks from other days of the plan if that works better for you. ■ For optimum results, the plan should be followed in conjunction with regular exercise. Anyone exercising a lot should increase their calorie intake accordingly, in line with the guidance given above. If you are pregnant, breastfeeding, or suffering from any medical condition, please consult a health professional before changing your diet. ■ Below are 7 days of low carb high protein diet plans.

High Protein Beans ■ Beans and legumes are an inexpensive and heart-healthy group of foods, which are popular all around the world. In addition to being high in protein, beans and legumes are also good sources of fiber, iron, and potassium. ■ The current daily value (DV) for protein is 50 grams per day. (1) This is considered to be a healthy target amount for most people. Most beans provide between 29% and 36% of the DV for protein per cup cooked. Boiled soybeans (or edamame) provide a whopping 63% of the DV. ■ Beans and legumes that are particularly high in protein include soybeans, lentils, white beans, cranberry beans, split peas, pinto beans, kidney beans, black beans, navy beans, and limas. The list below is ranked by the most protein per cup cooked. This list includes only whole beans and legumes, not products made from these foods. For bean products like tofu and hummus see the extended list of beans and bean products high in protein.

High Protein Cheese ■ For vegetarians or anyone simply looking to get more protein into their diet, cheese can be a good choice, but which are the healthiest choices? ■ Here is a list of 20 different kinds of cheese that provide the most protein per ounce (oz) or half cup. An ounce of cheese is approximately equal to a thin slice large enough to cover a piece of toast. ■ The current daily value (DV) for protein is 50 grams per day. (1) Cheeses high in protein include ricotta, low-fat cottage cheese, Parmesan, Romano, non-fat cheddar, gruyere, low-fat Swiss, fontina, and more. ■ Many of the cheeses on this list are low-fat or non-fat cheeses. In general, cheeses which are lower in fat will tend to contain more protein per serving. However, this is not always the case, and some of the cheeses on the list have a higher fat content. ■ For more high protein foods, see the articles on vegetarian protein foods, beans high in protein, grains hi

gh in protein, and nuts high in protein.

High Protein Foods

Protein is a macronutrient that forms the building blocks of the human body. It is necessary for many different functions, including growth and repair of all types of tissues, formation of enzymes and hormones, immune system function, and regulation of fluid and nutrient balance. A deficiency in protein leads to muscle atrophy and impaired functioning of the body in general. (1)

The reference dietary intake (RDI) of protein is between 46 and 63 grams for most adults, with pregnant and lactating women needing up to 65 grams per day. (2) The daily value (DV) for protein is set at 50 grams per day (3), which is an average that works for most people. Athletes or other people looking to build muscle mass may want to consume more protein.

High protein foods include lean chicken, lean pork, fish, lean beef, tofu, beans, lentils, low-fat yogurt, milk, cheese, seeds, nuts, and eggs.

Below is a list of healthy protein-rich foods sorted by common serving size. Use the protein nutrient ranking to sort by 100 gram or 200 calorie serving sizes. For more information, see the lists of vegetarian protein, high protein fruits, and high protein vegetables.

High Protein Fruits

Fruits can be a good source of protein, though they tend to provide less than vegetables, beans, nuts, and other high protein foods.

The current daily value (DV) for protein is 50 grams per day and is meant as a general goal for most people. (1) 1 cup of fruit can provide between 1 and 10% of the DV for protein. High protein fruits include guavas, avocados, apricots, kiwifruit, blackberries, oranges, bananas, cantaloupe, raspberries, and peaches.

The list below is sorted by the amount of protein contained in a one cup serving of each fruit. This allows for accurate comparison between different fruits. For more fruits high in protein, see the extended list of less common protein-rich fruits, and dried fruit high in protein.

High Protein Grains

Grains are a staple source of calories, carbohydrates, B-vitamins, and protein. Whole unrefined grains provide more protein for each carb than refined grains do. This is because the bran and germ of grains contain the most protein, and these parts of the grain are removed during the refinement process.

The current daily value (DV) for protein is 50 grams per day. (1) This is considered to be a healthy target amount for most people.

Grains high in protein include cornmeal, kamut (wheat berries), teff, quinoa, whole-wheat pasta, wild rice, millet, couscous, oatmeal, and buckwheat. One cup of cooked whole grains provides between 6 and 20% of the DV for protein.

For more grains high in protein, see the extended list of protein rich grains, and complete vegetarian protein foods.

High Protein Vegetables

Proteins are an important building block for all living things, and have many essential functions in the human body. This is why getting enough protein in your diet is crucial for good health.

Although many people think of meat when they're looking for protein sources, the truth is that many plant foods, including some vegetables, also have high levels of protein.

The current daily value (DV) for protein is 50 grams per day and is a target meant for most people. (1) Vegetables high in protein include lima beans, bean sprouts, green peas, spinach, sweet corn, asparagus, artichokes, brussels sprouts, mushrooms, and broccoli.

For more vegetarian and vegan sources of protein see the articles on beans and legumes highest in protein, and grains high in protein, and high protein nuts.

You can also see the uncurated list of 200 vegetables high in protein.

Protein Foods for Vegans

Veganism is a diet that avoids all foods from animals. T

his includes meats, seafood, cheese, milk, and eggs. Some vegans are concerned about getting enough protein, including adequate amounts of all nine of the essential amino acids.■Although it's certainly possible to meet your protein requirements entirely from plant sources (1), not all plant proteins are complete, meaning that they may not contain adequate levels of all nine of the essential amino acids. Combining proteins from different plants can help to ensure that you're getting all of the amino acids that you need. You can use our Complete Protein Calculator to find out whether a certain combination of plant foods would provide you with complete protein.■There are quite a few artificial meat products currently on the market. These are very highly processed foods. They generally use a high-protein plant food as a base, but then alter it significantly in order to mimic meat. Studies have found that consuming these highly processed foods does not have beneficial effects on human health. (2) This list avoids such foods, sticking instead to foods that are less processed and more natural.■Whole and healthy vegan sources of protein include tofu, beans, lentils, soy milk, green peas, nuts, seeds, whole grains, peanut butter, spinach, sweet corn, and mushrooms. The daily value (DV) for protein is set at 50 grams per day. (3) This is a general target meant for most people.■For more vegan sources of protein see our lists of beans, grains, nuts, vegetables, and fruits high in protein. Protein Foods for Vegetarians■Protein is necessary for the proper growth, development, and repair of all tissues in the human body.■Proteins are made up of amino acids. There are nine amino acids that are considered essential, meaning that you must eat them because your body cannot synthesize them on its own. A protein is considered "complete" if it contains all nine of these amino acids. (1)■Vegetarian foods can be a great source of protein. In general, animal foods contain all nine essential amino acids in relatively high quantities. Plant foods also contain all nine, but they often have lower amounts of particular amino acids. For example, grains contain lower amounts of lysine, while legumes contain lower amounts of methionine and cystine. Because of this, plant foods are sometimes considered to be "incomplete" sources of protein. However, combining multiple different plant foods can give you adequate amounts of all nine essential amino acids. (2) Examples include combining lentils with rice, or hummus with whole wheat bread. Use the complete protein calculator to make sure your foods contain 100% of the recommended daily intake for amino acids.■This list provides the top 10 complete vegetarian protein foods. For the purposes of this list, we assume that "vegetarian" refers to a person who does not eat meat or fish, but does eat dairy and eggs.■Vegetarian foods high in protein include tofu, beans, lentils, yogurt, milk, cheese, green peas, nuts, seeds, whole grains, peanut butter, eggs, and white button mushrooms. The current daily value (DV) for protein is 50 grams per day. (3) This is considered to be a healthy target amount for most people.■However, a specific person's protein needs depend on many factors, including their body size and how physically active they are. The USDA recommends a more specific target of 0.36 grams of protein per pound of body weight per day. Multiply your weight in pounds by 0.36 to get your personalized protein target. If you're an athlete or are very physically active, then you may need more protein than this. You can use this online calculator to provide a personalized estimate of your protein needs.■Below is a list of vegetarian protein foods ranked by common

serving size, for more vegetarian protein food ideas see the articles on high protein in beans, high protein nuts, and protein rich vegan foods.

High Cystine Foods

Cystine is the oxidized dimer form of the amino acid cysteine, and is considered nutritionally equivalent to cysteine. (3) ■ Among its many functions, cystine helps create antioxidants in the body (1), and can help with hair health. However, none of these claims are well established. (2) ■ High cystine foods include pork, beef, chicken, fish, lentils, oatmeal, eggs, low-fat yogurt, sunflower seeds, and cheese. (4) The reference dietary intake (RDI) for cystine is 4.1mg per kilogram of body weight or 1.9mg per pound. A person weighing 70kg (~154 pounds) should consume 287mg of cystine per day. (5) ■ Below is a list of the top 10 foods highest in cystine with the %RDI calculated for someone weighing 70kg (154lbs). For more high cystine foods see the extended list of cystine-rich foods.

High Histidine Foods

Histidine is an essential amino acid required for growth and tissue repair, blood cell production, and creation of the neurotransmitter histamine. Histidine can even help protect tissues from damage caused by radiation or heavy metals. (1) ■ High histidine foods include pork, beef, lamb, chicken, turkey, fish, soy, beans, milk, cheese, nuts, seeds, whole grains, and eggs. (2) The reference dietary intake (RDI) of histidine is 10mg per kilogram of body weight or 4.5mg per pound. A person weighing 70kg (~154 pounds) should consume around 700mg of histidine per day. (3) ■ Below is a list of the top 10 foods highest in histidine with the %RDI calculated for someone weighing 70kg (154lbs). For more high histidine foods see the extended list of histidine-rich foods.

High Isoleucine Foods

Isoleucine is an essential amino acid necessary for creating hemoglobin as well as regulating blood sugar and energy levels. (1) ■ Foods high in isoleucine include beef, chicken, pork, fish, tofu, dairy, beans, lentils, whole grains, nuts, seeds, and vegetables like peas. ■ The reference dietary intake (RDI) for isoleucine is 20mg per kilogram of body weight or 9mg per pound. A person weighing 70kg (~154 pounds) should consume around 1400mg of isoleucine per day. (2) ■ Below is a list of the top 10 foods highest in isoleucine with the %RDI calculated for someone weighing 70kg (154lbs). For more high isoleucine foods see the extended list of isoleucine rich foods. ■ Looking for foods low in isoleucine? Use the nutrient ranking tool to sort through the list of low isoleucine foods.

High Leucine Foods

Leucine is an essential, branched-chain amino acid (BCAA), required for the growth and repair of muscle, skin and bone. Leucine is suspected to be the only amino acid that can stimulate muscle growth and help prevent the deterioration of muscle with age. ■ High leucine foods include chicken, beef, pork, fish (tuna), tofu, canned beans, milk, cheese, squash seeds, and eggs. The reference dietary intake (RDI) for leucine is 39mg per kilogram of body weight, or 17.7mg per pound. A person weighing 70kg (~154 pounds) should consume around 2730mg of leucine per day. ■ Below is a list of the top 10 foods highest in leucine with the %RDI calculated for someone weighing 70kg (154lbs). For more high leucine foods see the extended list of leucine-rich foods.

High Lysine Foods

Lysine is an essential amino acid involved in the creation of collagen (1) and retention of calcium. (2) ■ Lysine may also help alleviate herpes simplex infections, and reduce the recurrence of cold sores. This is especially true when the ratio of lysine to arginine is high. Excess amounts of the amino acid arginine antagonizes (blocks) the effects of lysine on the body, and can create a lysine deficiency.

cy. Furthermore, lysine needs adequate amounts of vitamin B1, B2, B6, vitamin C, glutamic acid, and iron to be absorbed. (2). For more see the list of foods highest in lysine and lowest in arginine. ■ A deficiency of lysine can lead to tiredness, inability to concentrate, irritability, bloodshot eyes, retarded growth, hair loss, anemia and reproductive problems. (2,3) Further, low lysine levels have been found in people with Parkinson's, hypothyroidism, kidney disease, asthma, and depression. (2) ■ High lysine foods include lean beef, chicken, pork, fish, shellfish, tofu, cheese, milk, beans, lentils, and peas. The reference dietary intake (RDI) for lysine is 30mg per kilogram of body weight or 13.6mg per pound. A person weighing 70kg (~154 pounds) should consume around 2100mg of lysine per day. (5) Below is a list of the top 10 foods highest in lysine with the %RDI calculated for someone weighting 70kg (154lbs). For more high lysine foods see the extended list of lysine-rich foods. ■ Below is a list of the top 10 foods highest in lysine with the %RDI calculated for someone weighting 70kg (154lbs). For more high lysine foods see the extended list of lysine-rich foods.

High Methionine Foods ■ Methionine is an essential amino acid needed for normal metabolism and growth and for helping the liver to process fats. It is also necessary for the production of essential chemicals in the body such as homocysteine, taurine, and sulfate. (1) ■ Methionine can also help reduce cholesterol levels, prevent kidney stones, reduce the damage from heavy metals in the blood, counteract the toxic effects of acetaminophen, help prevent hair loss, and strengthen nails. (1) ■ A deficiency of methionine can lead to inflammation of the liver (steatohepatitis), anemia, and greying hair. (1,2) However, a diet low in methionine may also extend lifespan and reduce the risk of cancer. (3) ■ High methionine foods include turkey, beef, fish, pork, tofu, milk, cheese, nuts, beans, and whole grains like quinoa. ■ The reference dietary intake (RDI) for methionine is 10.4mg per kilogram of body weight or 4.5mg per pound. A person weighing 70kg (~154 pounds) should consume around 728mg of methionine per day. (4) ■ Below is a list of the top 10 foods highest in methionine with the %RDI calculated for someone weighting 70kg (154lbs). For more high methionine foods see the extended list of methionine rich foods.

High Phenylalanine Foods ■ Phenylalanine is an essential amino acid involved in creating brain signaling molecules such as dopamine, norepinephrine (noradrenaline), and epinephrine (adrenaline). (1) Phenylalanine can also be used by the body to make the amino acid tyrosine. (2) ■ Phenylalanine is used as an ingredient in artificial sweeteners containing aspartame and may have negative health effects if consumed in high amounts. People suffering from Phenylketonuria should limit their intake of phenylalanine. (3) ■ High phenylalanine foods include beef, chicken, pork, tofu, fish, beans, milk, nuts, seeds, pasta, whole grains, and vegetables like sweet potatoes. ■ The reference dietary intake (RDI) for phenylalanine and tyrosine is 25mg per kilogram of body weight or 11mg per pound. (4) Assuming a person gets half their requirement from each amino acid, a person can then consume 12.5mg per kg or 5.5mg per pound. As such, a person weighing 70kg (~154 pounds) should consume around 875mg of phenylalanine per day, and this is the amount used to calculate the reference dietary intake (RDI). If you only plan to consume phenylalanine, and no tyrosine, you should double the RDIs. ■ Below is a list of the top 10 foods highest in phenylalanine, for more high phenylalanine foods see the extended list of phenylalanine rich foods.

High Threonine

Foods■Threonine is an essential amino acid with a wide range of functions ranging from maintaining a protein balance to the creation of collagen and elastic muscle tissue like that in the heart, and production of digestive enzymes.■High threonine foods include lean beef, chicken, pork, tuna, tofu, beans, milk, cheese, green peas, eggs, seeds, and nuts. The reference dietary intake (RDI) of threonine is 15mg per kilogram of body weight or 6.8mg per pound. A person weighing 70kg (~154 pounds) should consume around 1050mg of threonine per day.■Below is a list of the top 10 foods highest in threonine with the %RDI calculated for someone weighing 70kg (154lbs).

For more high threonine foods see the extended list of threonine-rich foods.**High Tryptophan Foods**■Tryptophan is an essential amino acid needed for general growth and development, the production of niacin (vitamin B3), and the neurotransmitter serotonin. Serotonin is believed to play an important role in regulating sleep and mood, which is why turkey is sometimes attributed to making people sleepy. The truth, however, is that many other foods contain as much tryptophan as turkey and do not cause drowsiness.■High tryptophan foods include chicken, turkey, red meat, pork, tofu, fish, beans, milk, nuts, seeds, oatmeal, and eggs. The reference dietary intake (RDI) for tryptophan is 4mg per kilogram of body weight or 1.8mg per pound. Therefore, a person weighing 70kg (~154 pounds) should consume around 280mg of tryptophan per day.■Below is a list of the top 10 foods highest in tryptophan with the %RDI calculated for someone weighing 70kg (154lbs). For more high tryptophan foods see the extended list of tryptophan rich foods.**High Tyrosine Foods**■Tyrosine is a conditionally essential amino acid involved in creating brain signaling molecules such as dopamine, and stress hormones like norepinephrine (noradrenaline), and epinephrine (adrenaline). (1)■Tyrosine is conditionally essential since it can be made by the body if a person consumes enough of the amino acid phenylalanine. (2) People suffering from Phenylketonuria typically take tyrosine supplements since they cannot consume phenylalanine. (3) Note that many high tyrosine foods also contain phenylalanine and so are not a good substitute.■High tyrosine foods include beef, pork, fish, chicken, tofu, milk, cheese, beans, seeds, nuts, and whole grains.■The reference dietary intake (RDI) of phenylalanine and tyrosine is 25mg per kilogram of body weight or 11mg per pound. (4) Assuming a person gets half their requirement from each amino acid, a person can then consume 12.5mg per kg or 5.5mg per pound. As such, a person weighing 70kg (~154 pounds) should consume around 875mg of tyrosine per day, and this is the amount used to calculate the reference dietary intake (RDI). If you only plan to consume tyrosine, and no phenylalanine, you should double the RDIs.■Below is a list of the top 10 foods highest in tyrosine, for more high tyrosine foods see the extended list of tyrosine rich foods.**High Valine Foods**■Valine is an essential branched chain amino acid (BCAA) that promotes muscle repair and growth. It's also used to treat metabolic and liver diseases. (1)■High valine foods include beef, chicken, pork, fish, tofu, yogurt, beans, podded peas, seeds, nuts, and whole grains like oatmeal.■The reference dietary intake (RDI) for valine is 26mg per kilogram of body weight or 12mg per pound. A person weighing 70kg (~154 pounds) should consume around 1820mg of valine per day. (2)■Below is a list of the top 10 foods highest in valine with the %RDI calculated for someone weighing 70kg (154lbs). For more high valine foods see the extended list of valine rich foods.**10 Cheap and Healthy Superfo**

ods with a Long Shelf Life■Whether you live in a remote area, are going camping, or are looking to create a stockpile of food in case of a disaster, this list of healthy foods with a long shelf-life will help you.■Long lasting foods are typically dehydrated, cured, smoked, canned, or pickled. Great long-lasting foods include dried beans, dried herbs, grains, dehydrated milk, dried fruits, cocoa powder, dried seaweed, canned foods, pickled foods, and coconut oil.■Below are the details of the top 10 cheap superfoods that will last for a long time.11 Foods to Help You Build Muscle■The most common reason people want to build muscle is to bulk up and improve their physique and strength, also known as "bodybuilding".■Increasing muscle is also beneficial for weight management, as muscle is an "active tissue" meaning it uses energy even while we rest. Increasing your muscle mass, therefore, means your body burns more calories at rest. This can help you both lose weight and keep it off.■Maintaining muscle mass is also beneficial as we get older and naturally lose some of our muscle mass and strength. From the age of 30, we lose approximately 10% of our muscle mass every decade and after 50, that increases to 15%. A loss of muscle mass, known as sarcopenia, is associated with several negative health outcomes such as an increased risk of falls, various diseases, and poor quality of life. It is therefore beneficial to try and minimize this loss of muscle to maintain good health as we age.■When trying to gain muscle, it is essential to get enough protein, both throughout the day and immediately after workouts. The International Society for Sports Nutrition recommends 1.4 grams to 2 grams of protein per kg body weight per day for muscle building. The exact amount will depend on factors such as gender, body size, and activity levels (1).■The recommended muscle-building foods below include both plant and animal sources. These include: whey powder, tofu, peas, milk, beans, lentils, eggs, and fish. To build muscle, these foods should be eaten in combination with regular resistance exercise. Resistance exercise is any type of exercise that causes muscles to contract against a force or resistance; this can be free weights, weight machines, or your own body weight. For example, weight lifting, squats, lunges, push-ups and even yoga. Resistance exercise builds and tones muscle and makes your muscles stronger, it also increases bone strength. For good health, it is also recommended to include 150 minutes of cardiovascular exercise per week.■There is some debate about animal vs. vegetarian protein sources. Many bodybuilders are convinced you need animal protein to build muscle. There are however many successful vegan bodybuilders and athletes and a new school of thought that the inflammation caused by animal proteins might actually hinder performance. For this reason, the following list contains a mixture of both animal and plant-based proteins. If you do consume animal foods, it is healthy to include a mixture of both plant and animal proteins in your diet.■These muscle-building foods are all high in protein, easy to prepare, and have other health benefits beyond just their high protein content.19 Foods Which Alleviate and Prevent Acid Reflux (GERD)■Looking for a diet to help with acid reflux and Gastroesophageal Reflux Disease (GERD)? According to this study, the foods you eat can have a positive impact on acid reflux. (1)■It is a good idea to experiment with different foods to see which ones trigger your own reflux. For more see the article on foods to avoid for acid reflux (GERD).■In addition to eating these foods, avoiding spicy, fatty, and salty foods can help. Caffeine and alcohol co

consumption should also be minimized.■ Use of antacids and PPIs (Like Zantac etc..) lowers stomach acid. Low stomach acid can allow bacteria to grow in your stomach (bacterial overgrowth), disrupting the balance of protective mucous in the digestive system. (2) PPI's can be helpful in the short term, but can put you at increased risk of gastrointestinal infections down the road. (3) This is why it is not recommended to take PPIs for an extended duration of time. H2 blockers such as famotidine, can be a better choice to help control acid reflux symptoms with a lower side effect profile. (4)■ Further, using foods to control your reflux can prevent pain and damage to your body while preserving enough stomach acid to prevent bacterial growth.■ Below are 19 foods to alleviate acid reflux naturally.

Foods for a Healthy Heart

■ One of the easiest ways to avoid heart disease and stroke is to follow a heart-healthy diet. The foundation of a heart-healthy diet is built on high-fiber whole foods. It should include plenty of fruits, vegetables, whole grains, pulses, nuts, seeds, and fish.■ Processed foods, red meat, and other foods high in saturated fats should be minimized, while trans fats should be completely avoided.■ Foods that can help maintain, protect, and improve the health of the cardiovascular system include oily fish, oats, soya, almonds, fruits, vegetables, pulses, olive oil, turmeric, blueberries, and flax seeds.■ These heart-healthy foods work by lowering blood pressure, reducing cholesterol levels, improving the health and function of blood vessels, and reducing harmful processes such as oxidation and inflammation in the body.■ The heart-healthy foods below are scientifically proven to benefit the cardiovascular system and are healthy additions to any diet.

Foods for A Healthy Liver

■ The liver is the largest organ of the body (besides the skin), weighing around 3 pounds (1.5 kg). The liver is in the upper right-hand side of the abdomen, and has more than 500 functions, some of which include:

- Processing the blood from the digestive system, which contains newly absorbed nutrients along with potential toxins
- Blood sugar control
- Immune function - helping to fight infections
- Removing harmful substances and toxins from the body
- Manufacturing bile (for fat digestion)
- Storage of vitamins, minerals and other essential substances
- Storing glycogen (an important energy source)
- Making and regulating the levels of certain hormones
- Making enzymes
- Regulating blood clotting

■ According to the U.S. Liver Foundation, 4.5 million Americans live with chronic liver disease, and over 30,000 die each year from liver disease (1).■ Non-alcoholic fatty liver disease (NAFLD) is a growing problem worldwide, affecting 20-30% of adults (2). NAFLD refers to the accumulation of fat in the liver and has been described as the hepatic (relating to the liver) manifestation of metabolic syndrome. Metabolic syndrome is the collection of health factors (high blood pressure, high cholesterol, overweight etc.) resulting from the typical unhealthy Western diet and sedentary lifestyle. In other words, NAFLD is the result of our modern unhealthy lifestyles.■ Even in the absence of the above conditions, if your liver is not functioning optimally, it can result in a host of problems due to its diverse functions; including low energy, hormone imbalances, and compromised immunity. Supporting liver function is therefore integral to our health and well-being.■ A high-fiber whole-food diet is recommended for liver health. A diet rich in plant foods provides plenty of fiber, antioxidants, protective phytochemicals, vitamins, and minerals. Evidence suggests that the Mediterranean diet particularly benefits liver health (3,4). The Mediterranean

diet consists of fruits, vegetables, whole grains, pulses, nuts, olive oil, fish, and small amounts of high-quality dairy and meat.■A healthy liver is important for detoxifying harmful substances, processing nutrients and fat, and regulating blood sugar levels. How can you help to support the healthy functioning of your liver? Check out these 10 healthy foods that are perfect for the job.

Foods for Better Sleep■

According to the National Sleep Foundation, one in three people suffer from sleep problems at some point in their lives.■Sleep is just as important as healthy eating and exercise for both physical and mental health. Lack of sleep can contribute to depression, anxiety, stress, weakened immune system (1), weight gain (2), skin aging (3), relationship problems, and an increased risk of heart disease and diabetes (1).■Busy lifestyles, however, often mean that getting enough sleep falls down the list of priorities while trying to fit in everything else life demands of us. Furthermore, features of modern life including high stress levels, artificial lighting, and technology use can all disrupt sleep.■The good news is that everyone is born with the natural ability to sleep, so if you're not sleeping well, it means something is getting in the way of your body's natural ability. Identifying and removing the cause(s) should therefore restore good quality sleep. The benefits of doing so will include improved mood, reduced disease risk, improved brain function, memory and concentration, more energy, helping appetite and weight control, and slowing down the aging process.■The following foods may also help, as they have sleep promoting effects. If eaten regularly, as part of a healthy diet and lifestyle, along with good sleep hygiene (see tips below) and genuinely making sleep a priority, they can help encourage a restful night's sleep.

Foods for Eye Health■

Keeping our eyes healthy is important, especially as we get older. Globally, around 250 million people suffer from varying degrees of vision loss (1). Although not every case of vision loss is preventable, there are actions that a person can take to reduce their risk of losing their sight.■The leading causes for loss of vision include: cataracts, age-related macular degeneration (AMD), glaucoma, and diabetic retinopathy (a complication of diabetes). (1) All of these are much more likely to affect people as they age. As well as having regular eye tests, there are various diet and lifestyle measures we can all take to protect the health of our eyes and our vision. (1)■The eye is especially sensitive to damage from oxidative stress, which increases the risk of poor eye health. Oxidative stress is a type of damage that occurs inside of a cell, due to certain unstable compounds that are formed when oxygen is used by the cell to make energy. These compounds are known as free radicals.■Eyes have an especially high rate of oxygen consumption, along with a high concentration of delicate polyunsaturated fatty acids, which are especially prone to damage by free radicals. (1) Furthermore, the eyes are constantly exposed to high-energy visible light. This combination of factors creates high levels of the compounds that can trigger oxidative damage to the eyes.■It, therefore, makes sense to eat a diet rich in antioxidants as a starting point. This means a diet high in plants; lots of different and colorful fruits and vegetables, plus whole grains, pulses, nuts, and seeds.

Foods for Gut Health■

Your gut has a massive impact on your health and well-being way beyond simply digesting your food. The relationship between the gut and general health is complex, but much of it relates to the bacteria living there. Trillions of bacteria inhabiting

the digestive tract, collectively known as the "microbiome", comprise a mixture of beneficial, neutral, and potentially harmful bacteria.■The balance of the different varieties of bacteria has far-reaching effects on many aspects of health. A favorable balance of gut bacteria means you are more likely to have a strong immune system, be at a healthy weight, have healthy skin, and have good mental well-being. (1, 2,3) Imbalances in gut bacteria, on the other hand, are linked to various health problems including obesity, anxiety, irritable bowel syndrome, food intolerances, allergies, asthma, eczema, and infections.■The basis of a gut-friendly diet starts with a balanced and varied high-fiber diet. Foods that are good for your gut include yogurt, kimchi, sauerkraut, whole grains, papaya, pineapple, and more. Scroll down to view the full list of foods that promote gut health.

Foods for Healthy Aging

■Once believed to be down to our genes, several scientific and dietary studies listed in this article show that lifestyle factors can play a big part in how we age. This is empowering news means we have much more influence on the rate at which we age than previously thought. Health issues as we get older include cardiovascular health, joint and bone health, preserving good eyesight, maintaining memory and cognitive function, cancer prevention, and cosmetic issues, such as skin aging. The following foods listed below provide benefits in these areas. While no single food can have "anti-aging" powers, following a healthy, balanced diet is one of the most powerful ways to preserve good health as we get older. Eating the foods listed below is a great way to start adding foods to your diet to help increase your healthspan and longevity.■This is empowering news means we have much more influence on the rate at which we age than previously thought. Health issues as we get older include cardiovascular health, joint and bone health, preserving good eyesight, maintaining memory and cognitive function, cancer prevention, and cosmetic issues, such as skin aging. The following foods listed below provide benefits in these areas. While no single food can have "anti-aging" powers, following a healthy, balanced diet is one of the most powerful ways to preserve good health as we get older. Eating the foods listed below is a great way to start adding foods to your diet to help increase your healthspan and longevity.■This is empowering news means we have much more influence on the rate at which we age than previously thought.■Health issues as we get older include cardiovascular health, joint and bone health, preserving good eyesight, maintaining memory and cognitive function, cancer prevention, and cosmetic issues, such as skin aging. The following foods listed below provide benefits in these areas.■While no single food can have "anti-aging" powers, following a healthy, balanced diet is one of the most powerful ways to preserve good health as we get older. Eating the foods listed below is a great way to start adding foods to your diet to help increase your healthspan and longevity.

Foods For Healthy Hair And Nails

■Our hair and nails are dependent on a supply of nutrients from the food we eat to stay strong and healthy. This is not simply a matter of appearance though, as the health of our hair and nails is in fact, a barometer of our internal health.■A poor diet can quickly lead to weak, splitting nails and dull, brittle hair. Shiny hair and strong nails, on the other hand, can be an indicator of good health and nutritional status (1,2).■Hair is a fast-growing tissue and has high nutrient requirements (2).■Important nutrients for healthy hair and nails include protein, zinc, iron, and B vitamins. Omega-3

fats and vitamin A act as natural conditioners.■The fingernails are usually the first place to show visible signs of mineral deficiencies. For example, white spots can be a sign of zinc deficiency and vertical ridges can indicate that you need more iron.■Eating the foods recommended here will not only benefit your nails and hair, but your overall health as well, and are healthy additions to any diet.

Foods for Skin Health

■The skin is the largest organ of the body and serves to protect our body, regulate temperature, and manufacture vitamin D.■The health of your skin depends on the nutrients it receives. Feeding your skin from the inside is much more beneficial than any cream or beauty treatment you can buy.■Foods that promote skin health include oily fish, pomegranates, avocados, orange vegetables, turmeric, berries, nuts, fermented foods, chocolate, watermelon, spirulina, and seeds. Making these foods a regular part of your diet will give your skin an extra boost of nutrients and keep it healthy.

Foods High in Electrolytes

■Electrolytes are vital nutrients needed for maintaining the correct balance of water and pH in the body. (1)■Key electrolytes include sodium (Na), potassium (K), calcium (Ca), magnesium (Mg), Phosphorus (P), and Chloride (Cl). (1) Sodium and chloride constitute table salt and therefore are widely found in modern diets.■For the purpose of this article, we will list foods high in sodium, potassium, calcium, magnesium, and phosphorus. In order to avoid bias, we will only rank foods without added sodium, with the exception of pickles.■Foods high in electrolytes include milk, yogurt, soymilk, squash, cheese, green leafy vegetables, pickles, coconut water, and celery. (2)

Foods to Avoid for GERD (Gastroesophageal Reflux Disease)

■GERD (Gastroesophageal Reflux Disease) is a condition in which acid from the stomach escapes into the esophagus leading to pain near the stomach or chest.■Scientific studies still have not found conclusive evidence that GERD can be controlled by dietary changes, but diet and lifestyle changes, like diet and weight loss, are often recommended as a first line of defense. (1)■Finding the right GERD diet for you will involve experimentation, and it is likely to be different from person to person.■Foods that can trigger acid reflux include fatty fried foods, chocolate, coffee, tea, sodas, onions, and more. In addition to avoiding certain foods, other lifestyle factors such as weight loss and eating smaller meals can help alleviate GERD symptoms.■Below are the details of foods that can trigger acid reflux and more information on possible GERD complications.

Foods to Avoid to Protect Your Heart

■A heart-healthy diet is a balanced and varied diet, high in plant foods and based on whole, unprocessed foods. It should include plenty of fruits, vegetables, whole grains, pulses, nuts, seeds, and fish (if eaten). Processed foods, red meat, and foods high in saturated fats should be minimized.■Heart disease is a leading cause of death in the world. There are also some specific foods, food ingredients, and food groups that are particularly harmful to the health of the cardiovascular system.■They cause harm in several ways: by raising blood pressure, increasing cholesterol levels, damaging blood vessels, or promoting harmful processes in the body, such as oxidation and inflammation.■Limit and avoid the following foods to protect your heart.

Foods to Help You Lose Weight

■Overweight and obesity are increasing worldwide, having almost tripled since 1975. The World Health Organisation estimates that just under 2 billion adults worldwide are now either overweight or obese. Two-thirds of Americans are either overweight or obese and with this comes an increase

sed risk of various health problems including heart disease, stroke, type II diabetes, osteoarthritis, and certain cancers.■To reduce weight, it is important to follow a healthy, balanced diet, reduce your intake of foods high in sugar and unhealthy fats, increase consumption of fruits, vegetables, legumes, whole grains, and nuts and stay physically active.■The following foods may also help. They are not simply low calorie foods (although eating plenty of low-calorie foods is essential when trying to manage your weight). The foods below were selected for their ability to support weight loss through mechanisms beyond eating low calorie.■There are several mechanisms through which specific foods can encourage weight loss; some boost metabolic rate, which is the amount of energy or calories your body burns to maintain its vital functions. Others suppress appetite or increase satiety, keeping you feeling full for longer, which results in eating less. Others may reduce fat absorption or storage or even increase fat burning.■The only certain method for losing weight is to take in less energy than you expend. However, the following foods may help a little as part of a healthy eating plan and are all healthy additions to any diet.■You may also find the following weight loss meal plan helpful.

Foods to Reduce Cancer Risk

■The World Health Organisation (WHO) estimates that approximately a third of deaths from cancer are related to lifestyle factors including smoking, alcohol, being overweight, low fruit and vegetable intake, and lack of physical activity (1).■In addition to avoiding smoking, over-consumption of alcohol, and a sedentary lifestyle, following a healthy diet is important for cancer prevention. ■In the first instance, a healthy diet is important for maintaining a healthy weight. Being overweight increases the risk of 13 specific types of cancer and overall cancer risk (2,3). ■Secondly, a healthy diet can provide some protection against cancer via the health-promoting effects of certain foods and nutrients. An unhealthy diet, on the other hand, contains elements that increase the chances of developing cancer. ■When it comes to cancer prevention, there are no guarantees, but experts agree that the overall dietary pattern is fundamental and more important than individual foods. A healthy diet is one based predominantly on plant foods, with plenty of fruits, vegetables, whole grains, pulses, nuts, and seeds. Fish and moderate amounts of dairy products and poultry may also be included. Processed foods, processed meat in particular, red meat, added sugars, unhealthy fats (trans and saturated), and alcohol should be minimized (4). ■Adequate fiber consumption, in particular, is associated with reduced cancer risk (5). As fiber comes from plants, a diet based principally on whole plant foods will naturally meet the requirements for fiber. ■In addition, there are some specific foods and food groups that provide nutrients or plant substances, known as phytochemicals, that have been shown to have protective effects. It must be noted that these possible benefits are only present when these foods are included in the context of a healthy diet, as described. There are also certain foods linked with an increased risk of cancer, which should be avoided or minimized. ■The following article summarises both beneficial and harmful foods and overall dietary and lifestyle advice for cancer prevention.■Disclaimer: None of the advice in this article is intended to be a substitute for medical treatment or advice. Nor can it cure, treat, or prevent cancer. Please always consult a Health Professional before making any changes to your diet, especially if you are undergoing treatment for cancer or

any other medical condition. **Foods To Relieve Stress**■When faced with a stressful event, the body releases the stress hormones cortisol and noradrenalin (norepinephrine).■In the short term, these hormones help us to deal with the cause of our stress.

However, when stress becomes chronic, as it often does with modern lifestyles, it leads to various negative effects upon our health and wellbeing.■We are all familiar with the symptoms of stress, such as raised heart rate, anxiety, and shortness of breath. In addition, stress affects our mood, ability to concentrate, our energy levels, appetite, and sleep.■Chronic or long-term stress can eventually affect other systems of the body such as the immune, digestive, and reproductive systems. This can result in increased susceptibility to colds and infections (1), an increased risk of digestive issues such as IBS, and fertility problems. Stress is also associated with an increased risk of various diseases such as cardiovascular disease and some cancers (2,3).■There are various ways to help manage stress and its consequences, some of which are outlined below. Eating a healthy, balanced diet is important to ensure you get the nutrients your body needs to stay resilient in the face of stress. Eating a wide range of plant foods, including at least 7 portions of fruit and vegetables every day, plus plenty of nuts, seeds, beans, lentils, and whole grains is fundamental.■Below is a list of research-backed foods to help relieve stress and get you back on track.

Healthy Foods To Reduce Cravings■A food craving is an intense desire for a specific food. It can feel uncontrollable and tends to be for unhealthy foods, high in sugar, salt, fat, or a combination of these. For anyone trying to manage their weight or simply stay healthy, food cravings can sabotage the best of intentions.■Food cravings have various causes including being overly hungry, tired, or sleep deprived. Low blood sugar levels, dehydration, hormones, stress, and other emotional factors also affect us. The good news is that there are various ways we can manage our diet and lifestyle to minimize cravings.■The basis for reducing cravings should always be a balanced diet, providing all the essential food groups and nutrients our bodies need for good health.■Keeping blood sugar levels balanced is also key to reducing cravings. When our blood sugar levels become too low, we can experience a range of symptoms including cravings for sugary foods, low energy, poor concentration, and irritability. Many of the foods listed here, therefore help with blood sugar regulation, while others help keep us feeling full and satisfied. In the further tips section below, you can find advice for managing the non-dietary reasons mentioned, such as sleep and stress.

Healthy Foods to Support Your Immune System■The immune system is a complex network of cells, organs, and tissues that work together to protect us against disease. When the immune system is weakened, we are more vulnerable to catching any 'bugs' that are going around; this includes common colds, flu, and other viruses.■Nutrition plays a vital role in keeping the immune system healthy. Current research shows that more than 20 different nutrients are necessary to keep the system functioning at its best. Vitamin A, vitamin C, vitamin D, vitamin E, zinc, selenium, and probiotics are among the most well-known and well-researched.■No single food can 'boost' the immune system, however, there are foods that, as part of a varied and balanced diet, can provide some of the key nutrients it requires. Foods that support your immune system function and overall health include brazil nuts, oatmeal, yogurt, berries, sweet potatoes, bell peppers, mushrooms,

and more...High Energy Foods■One of the best ways to lead a healthy lifestyle and maintain a healthy weight is to eat food that sustains your energy levels throughout the day. The following list gives you 12 common foods that have been chosen for their ability to provide the body with energy.■Some of the foods provide slow-releasing energy from healthy carbohydrates, which are the body's main energy source. Others contain a range of important vitamins and minerals involved in cellular energy production processes in the body.■Good quality protein sources are also included, as these are needed for maintaining body tissues, including muscle.

Low Sodium Foods for People with High Blood Pressure (Hypertension)■Sodium is an essential nutrient required by the body for maintaining blood volume and pressure and for transmitting nerve impulses.■Sodium, together with chloride forms table salt or sodium chloride. Processed foods are by far the largest contributor of sodium in the diet, accounting for about 80% of our total sodium intake.■Over-consumption of sodium increases the risk of developing high blood pressure (hypertension), which in turn increases the risk of heart disease and stroke. As such, it is wise to regulate the amount of sodium you eat, and if you have high blood pressure to restrict your consumption of sodium, while boosting your consumption of potassium.■The current daily value (DV) for sodium is 2300mg, however, the American Heart Association recommends that people with high blood pressure eat less than 1500mg per day or less than 3/4 of a tablespoon of salt.■Fortunately, almost all foods are naturally low in sodium and it is easy to avoid consuming sodium if you stick to eating whole unprocessed foods without adding any salt or sauces. So a low sodium diet could be seen as more of an exercise in avoiding high sodium foods, than eating low sodium foods.■Healthy low sodium foods include vegetables, fruits, beans, grains, legumes, nuts, meats, oils, and fish. Be sure foods are not canned, or otherwise prepared with salt, or sauces that contain salt. Below is an overview of the top 10 foods lowest in sodium for your blood pressure diet.

The Most Nutrient Dense Foods Per Calorie■Leading a healthy lifestyle involves eating foods high in nutrients while avoiding empty, or suboptimal, calories. In order to identify the most nutrient-dense foods, we must look for foods highest in essential nutrients while being lowest in calories.■To create this ranking, we added all the daily values for the following nutrients:■Vitamins: Vitamins A, B1 (Thiamin), B2 (Riboflavin), B3 (Niacin), B5 (Pantothenic Acid), B6, B9, B12, C, D, E, and K.■Minerals: Calcium, Copper, Iron, Magnesium, Manganese, Phosphorus, Potassium, Selenium, and Zinc.■Macronutrients: Fat, Carbohydrates, and Fiber.■All these nutrients added together created a new nutrient density metric that we call "Total Daily Value" or "Total DV".■Below are 15 of the most nutrient-dense foods, these include fresh herbs like parsley, and dark leafy greens like swiss chard, kale, and spinach. Also on the list are shellfish (oysters), organ meats (liver), mushrooms, peppers, green onions, broccoli, and carrots. For even more high nutrient foods see the extended list of less common foods rich in nutrients.

The Ultimate Guide to Recommended Daily Intakes■When trying to consume a healthy diet, it helps to have an understanding of how much of each nutrient you should aim to consume. Several targets have been created so that you eat the right amount of each nutrient.■The most popular and common of these in the U.S. is the Daily Value or (%DV). This is the percentage that you see on all nutrition facts labels. In addition to this, there

is the Reference Dietary Intake (RDI), and Tolerable Upper Limit (UL) that any person should consume.■The reference dietary intake (RDI) gives numbers based on age and gender. The Daily Value (DV) builds on the RDI, but creates a number meant for everyone that can be put on the labels of food products.■In short, the RDI is more specific and the DV is more general.■If you are confused, don't worry, this article will clarify it for you, and give you a table with all the numbers.

Top 10 Chocolate Products Highest in Theobromine

■Theobromine is an alkaloid chemical primarily found in the cocoa plant, though also to a lesser extent in tea leaves and the cola nut. Cocoa and chocolate are the main foods high in theobromine.■Theobromine acts somewhat like caffeine in the body, and can be considered a stimulant.■Theobromine dilates blood vessels and causes increased urination, and as such, can be used to lower blood pressure. (2) Cocoa and chocolate are also very high in potassium, adding to their potential to help with hypertension (high blood pressure).■Healthy chocolate products high in theobromine include cocoa powder, baking chocolate, and dark chocolate. Less desirable sources include semisweet chocolate, chocolate candy, chocolate wafers, and hot chocolate mixes.■There is no set daily value or adequate intake for theobromine, however, 250mg is a good daily target for adults. An excess of 1000mg may lead to nervousness and headaches. (2,3) Also, avoid giving chocolate to dogs and cats. (4) See the warning section for more info.■Below are the top 10 chocolate products highest in theobromine.

Top 10 Cholesterol Lowering Foods

■Cholesterol is a steroid lipid (fat) present in the blood, necessary for the proper functioning of cell membranes, the production of vitamin D, and certain hormones.■High cholesterol levels are a risk factor for heart disease and stroke. (1,2) Cholesterol-lowering foods are therefore a great addition to anyone's diet for optimal health and as a preventative measure.■While foods can help to lower cholesterol, results often vary from person to person. In comparison, prescription statins lower cholesterol by 24-37%. (3) Depending on age and gender cholesterol can be lowered by 20% with changes in diet, exercise, and weight loss. (4) In one case study a 33 year old was able to lower their LDL cholesterol by 52% via lifestyle changes alone. (5) Lifestyle changes are also typically presented as a first-line treatment for high cholesterol. (4)■Cholesterol-lowering foods include oat bran, flax seeds, garlic, almonds, walnuts, whole barley, and green tea. Below is a detailed list of foods that lower bad LDL cholesterol, while leaving the good HDL cholesterol largely unaffected. Please note that while these foods can help lower cholesterol, they should still be consumed in moderation.

Foods High in Alpha Linolenic Acid (ALA)

■Alpha-Linolenic Acid (ALA) is an essential omega-3 fatty acid that must be obtained via foods. Alpha-linolenic acid is associated with a reduced risk of heart disease (1,2). ALAs can also help relieve inflammation associated with inflammatory bowel disease. (3)■ALA may also provide a wide range of health benefits including reduced cancer risk and regulation of the intestinal flora. (4)■ALA is also important for vegetarians, vegans, or people who do not eat fish or seafood. This is because the body can convert ALAs into the essential long-chain omega-3 fatty acids Docosahexaenoic acid (DHA) and Eicosapentaenoic Acid (EPA). (1) Both DHA and EPA are primarily found in fish and seafood and play a vital role in the brain and eyes. (5) For people who do not consume fish, ALAs are essential to increase levels of DHA and EPA.■The current daily target

for ALAs is set at 1.6g per day. (6) This is set as an adequate intake (AI) since there is not enough evidence to establish a recommended dietary allowance (RDA). ■How well ALA converts into EPA and DHA is a matter of debate, with some estimating a conversion rate of 3-6%. (7) Pregnant women should consume 0.2-0.3g of DHA a day (8), so you can impute an intake of 5 - 10g of ALAs to meet the daily requirement for DHAs during pregnancy and lactation.■Foods high in ALAs include flaxseeds, chia seeds, walnuts, canola oil, edamame, navy beans, cherimoya, avocados, roasted chicken, and zucchini.■In today's modern diet, most people eat a much higher proportion of Omega 6s than Omega 3s, leading some to look for foods with a good Omega 3 to Omega 6 ratio. For this reason, the amount of omega 3s per omega 6 fat is listed for each food.■Below is a list of top 10 foods highest in ALAs. For more foods high in ALAs see the complete ranking of over 200 foods high in ALA fats. Note: The list of 200+ foods contains many fried foods which are likely fried using soybean or canola oil, and this is why they have a high quantity of ALAs. That said, deep-fried foods are high in saturated-fats, calories, and not part of a healthy diet. For this reason, the top 10 list below excludes these foods.

Foods High in Docosahexaenoic Acid (DHA)■Docosahexaenoic acid (DHA) is a type of long-chain omega-3 fatty acid required for the healthy development of the brain and retina (eyesight). (1,2) Further, some studies show cognitive benefits from DHA in older adults, improving memory and learning. (3)■DHA is found primarily in fish and seafood. It can also be created by the body using alpha-linolenic acid (ALA) (4), however, only 3% - 6% of ALAs get converted into DHAs. (5) Since DHA is important for brain development, it is present in breast milk. (6) Pregnant and lactating women should aim to consume 0.2 - 0.3 g of DHA per day. (7)■Foods high in DHA include salmon, tuna, canned tuna, mackerel, white fish, canned sardines, squid (calamari), mussels, oysters, cod, fish eggs (roe), pickled herring, and snow crab. Pregnant women should avoid mackerel, swordfish, and tilefish due to their potential mercury content. All other sources should be considered safe and healthy as long as they are fresh and well-prepared.■Below is a list of foods high in DHA ranked by a common serving size. For more, see the extended list of foods rich in DHA, and the nutrient ranking of 200 foods high in DHA fats. For omega 3 fats see the list of foods high in omega 3 fats and foods with a high omega 3 to 6 ratio.

Foods High in Fat■Fat is an essential macronutrient with a range of important functions, including insulating the body, helping us absorb vitamins, and acting as an energy store.■Each gram of fat contains 9 calories, making it the most calorie-dense nutrient, and eating too much can therefore lead to weight gain.■Not all fats are created equal, however, and healthy fats are an essential part of a balanced diet. In fact, including some healthy fats and reducing your consumption of the less healthy types (trans fats and saturated fats) is extremely beneficial to health. In particular, it can reduce your risk of cardiovascular disease and other conditions associated with inflammation in the body, such as rheumatoid arthritis.■For more information, see the list of unhealthy high fat foods to avoid.■Healthy high-fat foods include avocados, tofu, nuts, seeds, fish, peanut butter, soybeans, flaxseed oil, cheese, and eggs. (1) The daily value (DV) for fats is 78 grams. (2) Below are the top 10 healthy foods highest in fat. For more, see the complete ranking of 200 foods high in fat.

Foods with the Highest Omega 3 to Omega 6

■Research suggests that eating a diet with a high omega-3 to omega-6 ratio leads to a reduced risk of some cancers, cardiovascular disease, inflammation, developmental disorders, and cognitive aging. (1,2)■This article lists the foods with the highest omega-3 to omega-6 ratio, so that you can achieve a better balance in your diet. ■Foods with a high omega-3 to omega-6 ratio include crab, fish (tuna, cod, salmon), mussels, rapini, spinach, flax seeds, mangoes, lettuce, and kidney beans. (3)■There is no daily value set for omega-3s, but the adequate intake (AI) per day is set at 1.6g (4,5). This target is used to calculate the AI of omega-3 for the foods in the list.■Below is a list of foods with high omega 3 to omega 6 ratios, for more, see the list of foods high in omega 3s, and the complete ranking of over 200 foods high in omega 3s per omega 6.

High Cholesterol Foods

■Cholesterol is a steroid lipid (fat) present in the blood, necessary for the proper functioning of cell membranes, the production of vitamin D, and the production of certain hormones.■Cholesterol deficiency is rare, as our bodies manufacture the cholesterol we need. High blood cholesterol levels, on the other hand, increase the risk of cardiovascular disease and other health problems. (1,2)■The effect of cholesterol foods on blood cholesterol levels is a matter of debate. Some studies find a link between dietary cholesterol and higher blood cholesterol, while other studies find no result. (3,4,5)■Dietary cholesterol is just one of many factors that contribute to blood cholesterol, and thus, it is difficult to isolate the effect of dietary cholesterol. (3,4,5) Certain groups of people, such as smokers, are more sensitive to dietary cholesterol. (5,6)■Eating a diet of healthy fats and fiber helps to lower cholesterol. (7,8)■Foods high in cholesterol include fast foods, liver, fatty meats, canned shrimp, desserts, eggs, whipped cream, bacon, cheese, and butter. The current daily value (DV) for cholesterol is 300mg. (9)■Below is a list of high-cholesterol foods sorted by a common serving size. To lower your cholesterol, read the article on cholesterol lowering foods, and foods to avoid for a healthy heart.

High Fat Foods to Avoid

■Fat is an essential macronutrient with a range of important functions, including insulating the body, helping us absorb vitamins and acting as an energy store.■We all need to consume fat, it is an essential part of a balanced diet. Not all fats are created equal, however, and reducing your consumption of the less healthy types (trans fats and saturated fats) is extremely beneficial to health, especially when these are replaced with healthy unsaturated fats. In particular, unsaturated fats can reduce your risk of cardiovascular disease and other conditions associated with inflammation in the body, such as rheumatoid arthritis.■While there are healthy sources of fat you should be eating, all the foods on this list should be avoided, or at least limited to a very occasional treat.■Each gram of fat contains 9 calories, making it the most calorie-dense nutrient, and eating too much can therefore lead to weight gain.■The foods on this list contain unhealthy sources of fats, to be avoided or at least limited to a very occasional treat.■Of all the fats listed below, trans-fats are the most damaging to health and should be avoided. Read ingredient labels and avoid any trans or partially hydrogenated fats or oils.■High-fat foods to avoid include fast foods, whipped cream, fatty meats, fried foods, fatty snacks, processed meats, desserts, fatty salad dressings, animal fats, and trans-fats. (1) The daily value (DV) for fat is 78 grams per day. (2)■For more information, see the article on healthy

high fat foods to eat, foods high in omega 3 fats, and the complete ranking of 200 foods high in fat.

High Omega 3 Foods

■Omega-3 fatty acids are a type of polyunsaturated fat associated with various health benefits including reducing the risk of heart disease (1,2), reducing the risk and severity of dementia (3), alleviating inflammation in arthritis (4), and reduction of triglyceride levels. (5) Omega 3s are 'essential fats' as they cannot be made in the body, and must be obtained via diet. ■The 3 principal omega-3 fatty acids are: ■Note: Most health benefits of omega 3s are attributed to DHA and EPA forms of omega 3s. This is partly due to the high concentration of DHA in the brain, and also because ALAs have not been extensively studied. (6) The body can convert ALA fats from plant foods, however, the efficiency of conversion varies from person to person, with average estimates suggesting that 6% of ALAs get converted to EPA, while 3.8% get converted to DHA. (7) ALAs are not totally without benefits, and more studies need to be conducted to fully understand the role of ALAs. (8,9) ■High omega-3 foods include flaxseeds, chia seeds, fish, walnuts, tofu, shellfish, canola oil, navy beans, brussels sprouts, and avocados. The adequate intake (AI) for ALA omega 3 fats is 1.6g per day (10). No adequate intake target for EPA and DHAs exists, so 1.6g is presented in this article to make it easier to compare sources of omega 3s. ■Below are the top 10 foods high in omega 3 fatty acids. For more, see the list of foods with a high omega 3 to omega 6 ratio, and the complete list of over 200 foods high in omega 3s.

High Omega 6 Foods

■Omega-6 fatty acids are a type of polyunsaturated fat naturally occurring in nuts, seeds and vegetable oils. Consumption of omega-6 fats has dramatically increased over recent years, due to the wide use of refined vegetable oils and their addition to processed and fast foods. (1) ■While many sources of omega-6 are healthy, this large increase in consumption has been linked to health problems, including an increased risk of cardiovascular disease, cancer, inflammatory, and autoimmune diseases. (2) ■What appears to be the problem is that the ratio of omega-6 to omega-3 fats in the diet has become too high. For some people, therefore, increasing omega 3 fats and limiting omega-6 consumption (especially from unhealthy sources) can be beneficial. ■Unhealthy foods high in omega-6 fats include processed snacks, fast foods, cakes, fatty meats, and cured meats. Healthier sources of omega-6 fats include tofu, walnuts, and peanut butter. (3) Tofu and walnuts contain omega 3 fats and have a reasonable omega 3 to omega 6 ratio. The adequate intake (AI) for omega-6 foods is 17g per day for men and 12g for women. (4,5) ■For more, please see the article of foods with the best omega 3 to 6 ratio, and the unfiltered list of over 200 foods high in omega 6 fats.

High Saturated Fat Foods

■Saturated fats are solid fats, such as those found in meat, butter, lard, and coconut oil (as opposed to liquid oils, like olive oil, which contain unsaturated fats). ■Recently the association between saturated fat and heart disease is in question. (1) Substituting "low-fat" refined carbohydrates for saturated fat is a bad choice. Instead, substitute saturated fats with healthier high-fat foods that actually lower cholesterol. (2,3) ■Change in opinion on the effect of saturated fat and cardiovascular disease is not a reason to over-consume saturated fat. Even coconut oil should not exceed 10% of total calories. (4) ■Foods high in saturated fat include whipped cream, dried coconut, fatty meats, processed meats, desserts, oils, cheese, milk, butter, and chocolate. The daily value (DV) for saturated fat

t is 20 grams per day. (5)■Below is a list of the top ten foods highest in saturated fat, for more see the lists of healthy high fat foods, unhealthy high fat foods to avoid, and high cholesterol foods. **Top 10 Cholesterol Lowering Foods**■Cholesterol is a steroid lipid (fat) present in the blood, necessary for the proper functioning of cell membranes, the production of vitamin D, and certain hormones.■High cholesterol levels are a risk factor for heart disease and stroke. (1,2) Cholesterol-lowering foods are therefore a great addition to anyone's diet for optimal health and as a preventative measure.■While foods can help to lower cholesterol, results often vary from person to person. In comparison, prescription statins lower cholesterol by 24-37%. (3) Depending on age and gender cholesterol can be lowered by 20% with changes in diet, exercise, and weight loss. (4) In one case study a 33 year old was able to lower their LDL cholesterol by 52% via lifestyle changes alone. (5) Lifestyle changes are also typically presented as a first-line treatment for high cholesterol. (4)■Cholesterol-lowering foods include oat bran, flax seeds, garlic, almonds, walnuts, whole barley, and green tea. Below is a detailed list of foods that lower bad LDL cholesterol, while leaving the good HDL cholesterol largely unaffected. Please note that while these foods can help lower cholesterol, they should still be consumed in moderation. **High Carb Foods to Limit or Avoid**■Carbohydrates are one of the three macronutrients required by the body for proper functioning and good health. The main function of carbohydrates is to provide energy to the body including the brain, which also runs on glucose.■Healthy high carb foods like whole grains, plus fruits and vegetables (which are also classed as carbohydrates) are an essential part of a balanced diet, and eating plenty of these foods reduces the risk of many diseases, including heart disease, type II diabetes, obesity, and some cancers. On the other hand, excessive consumption of refined carbohydrates like sugar or corn syrup, can increase our risk of the same diseases.■Unhealthy high carbohydrate foods include pancakes, soft pretzels, bread products, ready-to-eat cereals, milkshakes, ice-cream, cereal bars, cake, pies, muffins, sweetened canned fruits, sugary drinks, fruit juices, corn chips, potato chips, and candies. Healthy high carbohydrate foods include whole grains, beans, vegetables, fresh fruits, nuts, and seeds. The daily value (DV) for carbohydrates is 275 grams. For more healthy high carbohydrate choices see the list of healthy high carb foods.■Below is a list of foods highest in carbohydrates, for more see the extended list of carb rich restaurant foods. **High Glucose Foods**■Glucose is a simple monosaccharide sugar and the principal energy source for both the brain and the body. (1)■Carbohydrates in foods are all ultimately broken down in the body into glucose. (1) If you are looking to manage your blood glucose levels, it is therefore important to balance your intake of both sugars and carbohydrates. Low blood glucose leads to anxiety, hunger, and confusion. High blood glucose can lead to increased thirst, fatigue, and blurred vision. (2) Foods naturally high in pure glucose include honey, agave, molasses, dried fruit, fruits, fruit juices, and sweet corn. These foods are healthy, in moderation, as part of a balanced diet, especially fresh fruits. Foods that typically have a lot of added glucose include sauces, salad dressings, pies, and sugary drinks. (3) Foods with high levels of added sugar should be limited, as over-consumption of these foods is associated with an increased risk of type II diabetes, obesity, and cardiovascular disease. Below a

re the top 10 foods highest in glucose, for more, see the extended list of glucose rich foods. To find foods low in net-carbs see the lists of fruits, vegetables, grains, and beans low in net-carbs. ■ Low blood glucose leads to anxiety, hunger, and confusion. High blood glucose can lead to increased thirst, fatigue, and blurred vision. (2) Foods naturally high in pure glucose include honey, agave, molasses, dried fruit, fruits, fruit juices, and sweet corn. These foods are healthy, in moderation, as part of a balanced diet, especially fresh fruits. Foods that typically have a lot of added glucose include sauces, salad dressings, pies, and sugary drinks. (3) Foods with high levels of added sugar should be limited, as over-consumption of these foods is associated with an increased risk of type II diabetes, obesity, and cardiovascular disease. Below are the top 10 foods highest in glucose, for more, see the extended list of glucose rich foods. To find foods low in net-carbs see the lists of fruits, vegetables, grains, and beans low in net-carbs. ■ Foods naturally high in pure glucose include honey, agave, molasses, dried fruit, fruits, fruit juices, and sweet corn. These foods are healthy, in moderation, as part of a balanced diet, especially fresh fruits. Foods that typically have a lot of added glucose include sauces, salad dressings, pies, and sugary drinks. (3) Foods with high levels of added sugar should be limited, as over-consumption of these foods is associated with an increased risk of type II diabetes, obesity, and cardiovascular disease. ■ Below are the top 10 foods highest in glucose, for more, see the extended list of glucose rich foods. ■ To find foods low in net-carbs see the lists of fruits, vegetables, grains, and beans low in net-carbs.

High Lactose Foods ■ Lactose is a disaccharide sugar made up of a combination of galactose and glucose. Lactose is found primarily in milk (dairy) foods. ■ At an early age almost everyone has the ability to digest lactose since it is an important source of energy from breastmilk. Later on in life, however, some people lose the ability to digest lactose and suffer from lactose intolerance. (1) ■ Symptoms of lactose intolerance include gas, diarrhea, and bloating. (1) ■ Foods high in lactose are those which contain milk. These include ice-cream, milk puddings, hot chocolate, eggnog, macaroni and cheese, yogurt, pancakes, milk chocolate, cottage cheese, and mashed potatoes. (2) ■ Below are the top 10 foods highest in lactose.

High Starch Foods ■ Starch is the most common form of carbohydrate and typically found in staple grains like rice, wheat, and corn. (1) ■ Healthy high starch foods include whole grains, whole grain bread, whole grain pasta, minimally processed vegetables, and beans (legumes). Less healthy forms of starch include processed cereals, snacks, cakes, cookies, pies, pizzas, French fries, doughnuts, and foods which have been breaded and fried. (2) ■ Below are the top 10 foods highest in starch. For more, see the extended list of starch-rich foods.

Top 10 Healthy High Carb Foods ■ Carbohydrates are an essential part of a balanced diet, however, some popular diets have unfortunately given 'carbs' a bad reputation and even lead to a 'fear' of carbohydrate foods in recent years. ■ A balanced diet should always include the three major food groups: carbohydrates, proteins, and fats. ■ Carbohydrate-rich foods are the body's main source of energy, giving you the fuel you need to carry out your daily activities. The brain also runs on carbohydrates, so this includes mental, as well as physical, energy. Healthy carbohydrate food sources like whole grains and vegetables are also a key dietary source of fiber, vitamins, and minerals. ■ Choosing the right

type of carbohydrate is important. Carbohydrates that should be limited or avoided are the refined carbs, including white bread, white rice, white flour products, and anything with added sugar. ■ Healthy high-carb foods include sweet potatoes, brown rice, navy beans, chestnuts, lentils, bananas, oatmeal, milk, raisins, and healthy snacks like brown rice cakes. The current daily value (DV) for carbs is 275 grams. ■ The following is a list of the top 10 healthy sources of carbohydrates to include in your diet. Click here for a list of high carb foods to avoid.

Fruits Lowest in Sugar

■ Fruits are high in vitamins, minerals, fiber, water, and probably several other great nutrients yet unknown to nutrition. For people wanting all those great benefits while minimizing their sugar intake, below is a list of the top 10 fruits lowest in sugar. ■ Low sugar fruits include olives, avocados, starfruit, cranberries, raspberries, blackberries, strawberries, currants, Asian pears, and casaba melon. The list below gives the grams of sugar per serving, and the number of teaspoons of sugar per serving. 1 tsp is equal to 4 grams of sugar. ■ For more information see the nutrient ranking of low sugar fruits.

High Fructose Foods

■ Fructose is a simple sugar, or monosaccharide, typically found in fruit, some vegetables, and honey. ■ Fructose along with glucose forms the commonly eaten 'table sugar' or sucrose that we are all familiar with. High-fructose corn syrup (HFCS) is now added to many processed foods, especially in the US, as an inexpensive 'bulk-sweetener'. ■ Fructose is often added to food because it is both cheap and enhances taste. Potential health effects of added fructose include obesity, increased LDL cholesterol, gout, and non-alcoholic fatty liver disease. (1) More studies are needed to determine whether fructose is to blame, as many other components of these processed foods are unhealthy. (1) ■ It should be noted that naturally occurring fructose in fruits is not the problem here. Fruits are beneficial to health, being an excellent source of fiber, vitamins, and antioxidants. ■ People with a rare condition called hereditary fructose intolerance, or those with fructose malabsorption may have to limit their consumption of fructose from all sources, including high-fructose fruits. The list below, therefore, includes all high-fructose foods, both naturally occurring and processed. ■ Foods high in added fructose include sauces, salad dressings, sugary drinks, colas, yogurt, baked goods, and fast foods. Foods naturally rich in fructose include honey, molasses, agave, dried fruits, fruits, and fruit juices. (2) Below are the top 10 foods highest in fructose. For more, see the extended list fructose rich foods.

High Galactose Foods

■ Galactose is a simple "monosaccharide"™ sugar naturally occurring in milk. Joined with glucose, it forms lactose, the principal sugar in milk and dairy foods. It is particularly important in early human development. (1) Compared with glucose and fructose, galactose is not found in high quantities in any food. Foods high in galactose include milk-based puddings, sweetened yogurt, cherries, honey, celery, kiwifruit, hamburgers (with condiments), plums, low-fat mozzarella, and avocados. (2) ■ Compared with glucose and fructose, galactose is not found in high quantities in any food. ■ Foods high in galactose include milk-based puddings, sweetened yogurt, cherries, honey, celery, kiwifruit, hamburgers (with condiments), plums, low-fat mozzarella, and avocados. (2)

High Glucose Foods

■ Glucose is a simple monosaccharide sugar and the principal energy source for both the brain and the body. (1) ■ Carbohydrates in foods are all ultimately broken down in the body into glucose. (1) If you are lo

Looking to manage your blood glucose levels, it is therefore important to balance your intake of both sugars and carbohydrates. Low blood glucose leads to anxiety, hunger, and confusion. High blood glucose can lead to increased thirst, fatigue, and blurred vision. (2) Foods naturally high in pure glucose include honey, agave, molasses, dried fruit, fruits, fruit juices, and sweet corn. These foods are healthy, in moderation, as part of a balanced diet, especially fresh fruits. Foods that typically have a lot of added glucose include sauces, salad dressings, pies, and sugary drinks. (3) Foods with high levels of added sugar should be limited, as over-consumption of these foods is associated with an increased risk of type II diabetes, obesity, and cardiovascular disease. Below are the top 10 foods highest in glucose, for more, see the extended list of glucose rich foods. To find foods low in net-carbs see the lists of fruits, vegetables, grains, and beans low in net-carbs.

Low blood glucose
 Low blood glucose leads to anxiety, hunger, and confusion. High blood glucose can lead to increased thirst, fatigue, and blurred vision. (2) Foods naturally high in pure glucose include honey, agave, molasses, dried fruit, fruits, fruit juices, and sweet corn. These foods are healthy, in moderation, as part of a balanced diet, especially fresh fruits. Foods that typically have a lot of added glucose include sauces, salad dressings, pies, and sugary drinks. (3) Foods with high levels of added sugar should be limited, as over-consumption of these foods is associated with an increased risk of type II diabetes, obesity, and cardiovascular disease. Below are the top 10 foods highest in glucose, for more, see the extended list of glucose rich foods. To find foods low in net-carbs see the lists of fruits, vegetables, grains, and beans low in net-carbs.

Foods naturally high in pure glucose
 Foods naturally high in pure glucose include honey, agave, molasses, dried fruit, fruits, fruit juices, and sweet corn. These foods are healthy, in moderation, as part of a balanced diet, especially fresh fruits. Foods that typically have a lot of added glucose include sauces, salad dressings, pies, and sugary drinks. (3) Foods with high levels of added sugar should be limited, as over-consumption of these foods is associated with an increased risk of type II diabetes, obesity, and cardiovascular disease. Below are the top 10 foods highest in glucose, for more, see the extended list of glucose rich foods. To find foods low in net-carbs see the lists of fruits, vegetables, grains, and beans low in net-carbs.

High Lactose Foods
 Lactose is a disaccharide sugar made up of a combination of galactose and glucose. Lactose is found primarily in milk (dairy) foods. At an early age almost everyone has the ability to digest lactose since it is an important source of energy from breast milk. Later on in life, however, some people lose the ability to digest lactose and suffer from lactose intolerance. (1)

Symptoms of lactose intolerance
 Symptoms of lactose intolerance include gas, diarrhea, and bloating. (1)

Foods high in lactose
 Foods high in lactose are those which contain milk. These include ice-cream, milk puddings, hot chocolate, eggnog, macaroni and cheese, yogurt, pancakes, milk chocolate, cottage cheese, and mashed potatoes. (2) Below are the top 10 foods highest in lactose.

High Maltose Foods
 Maltose is a disaccharide composed of two glucose molecules. It is produced by plants, especially in seeds and grains when they germinate. Maltose is also produced when glucose is caramelized and so may be found in toasted (browned) foods such as bread, crackers, and bagels. Maltose is used in food manufacturing; it is added to a wide variety of foods as a sweetener and is used to make beer. Foods high in maltose include pancakes, sweet

t potatoes, French bread, fried onion rings, bagels, pizza, hamburgers, edamame, and malt-o-meal cereal.■Below are the top 10 foods high in maltose based on data in the USDA database. Please note that maltose data is incomplete in the database. There may be more foods high in maltose. Remember that when food is browned (such as toasting bread) or caramelized (as in cooked sweet potatoes) maltose may be present.

High Sucrose Foods■Sucrose is a disaccharide created by the combination of glucose and fructose. Sucrose is mainly found in plants and is the primary component of most granulated sugars we use in baking. These sugars are mainly refined from sugar beets or sugar cane.■Consumption of refined added sugars such as sucrose is too high in the typical Western diet and should therefore be reduced. Today sucrose can be found in a range of fast foods, restaurant foods, and other commercially processed foods. These high sucrose foods include puddings, milkshakes, cakes, fruit juice drinks, deep-fried meats with sweet sauce, cookies, pancakes, candies, chocolate, and commercial cereals.■The list below gives the amount of sucrose in both grams and teaspoons. 1 teaspoon of packed sucrose weighs about 4 grams. For more high sucrose foods see the complete list of foods with sucrose in the nutrient ranking tool.

High Sugar Foods (To Limit or Avoid)■Sugars are simple carbohydrates naturally occurring in a variety of foods, including, fruits, vegetables, and milk. Sugar is also used as a food ingredient, added to processed foods for its sweet taste. It is these added sugars that cause health problems, not the sugars naturally occurring in foods.■Consumption of added sugar has increased rapidly over recent years and is believed to contribute to rising rates of obesity, type II diabetes, and heart disease.■High sugar foods to limit or avoid include puddings, milkshakes, ice-cream, fruit juices, sugary soda drinks, cakes (especially with frosting), candies, fruit yogurts, fast foods, cereal bars, and commercial cereals. In this list, both the grams of sugar and teaspoons of sugar is given. 1 teaspoon is equal to 4 grams of sugar.■For more information see the article of high carb foods to limit or avoid, or see the nutrient ranking of 200 foods high in sugar.

High Sugar Fruits■Fruit is an excellent source of nutrients, providing water, fiber, vitamins, and antioxidants. Fruit contains natural sugars, however, these 'intrinsic' sugars naturally occurring in fruits, vegetables, and milk are not the ones we need to be concerned about.■Although we don't need to reduce our consumption of sugars occurring naturally in fruits, they do still count toward our daily total sugar intakes. People needing to control their blood sugar intakes (such as diabetics) may also find it useful to know which fruits are higher in sugar.■Fruits high in natural sugar include litchis, passion-fruit, pomegranates, mangoes, cherries, oranges, kiwifruit, grapes, guavas, and bananas. In the listing, both the grams of sugar and teaspoons of sugar per serving of each fruit is given. A packed teaspoon of granulated sugar is equal to 4 grams.■Below is a list of fresh fruits high in sugar. For more see the extended lists of less common fruits high in sugar, dried fruits high in sugar, and the unfiltered list of over 100 fruits high in sugar.

High Sugar Vegetables■Of all the food groups, vegetables are typically low in sugar, while being a great source of healthy fiber, vitamins, and minerals.■We don't need to reduce our consumption of sugars occurring naturally in vegetables, fruit, or milk, but they do still count toward our daily total sugar intakes. You may also wish to be aware of how much sugar certain vegetables

contain.■In this article, both grams and teaspoons of sugar are listed for each vegetable. One packed teaspoon of sugar is equal to 4 grams.■Vegetables higher in sugar include sweet potatoes, beets, onions, green peas, sweet corn, peas, canned pumpkin, winter squash, rutabagas, carrots, and tomatoes. They range from providing 3.5 g to 14g (1 to 3.5 teaspoons) of sugar per cup.■For more high sugar vegetables, see the nutrient ranking of 200 vegetables high in sugar. Vegetables Lowest in Sugar■Vegetables are high in fiber, vitamins, minerals and many other beneficial nutrients. ■While typically low in sugar, some vegetables contain more sugar than others. The list below is for vegetables with the least sugar. The sugars in this article are listed in both grams and teaspoons (tsp). One packed teaspoon of sugar weighs 4 grams.■Low sugar vegetables include white button mushrooms, watercress, spinach, lettuce, beet greens, kale, sprouts, celery, and broccoli. They range in having 0 - 2.3 grams of sugar per serving. That is around half a teaspoon at most.■For more vegetables low in sugar see the nutrient ranking of 200 vegetables low in sugar.27 Plant Foods Highest in Protein per Net Carb■Adopting a plant-based diet is gaining in popularity, not just for ethical reasons, but also for environmental sustainability, and health reasons. (1) At the same time, many people are adopting diets that limit their intake of carbohydrates, such as 'keto' or 'eco-Atkins' diets.■Low-carb diets are typically high in protein, as they often involve relatively high meat consumption. However, those following a low-carb plant-based diet may be concerned about getting enough nutrients, especially protein. There are many great plant sources of protein available that also have low net carbs.■The standard daily value (DV) for protein is 50 grams per day, but you may require more or less depending on your weight and activity level. (2)■The high protein plant foods below are ranked by protein to net carb ratio. High protein plant foods that are low in net-carbs include soy foods, leafy greens, nuts, seeds, and sprouts. For more ideas, see the complete ranking of 200 vegan foods highest in protein per net-carb. Beans and Legumes Low in Net Carbs■Beans are a good source of protein, fiber, and energy for our bodies. Net carbs are equal to total carbohydrates minus the amount of fiber. The theory is that we do not digest the carbohydrates trapped in fiber.■Beans and legumes low in net carbs include tofu, soybeans, mung beans, lentils, broad beans, black-eyed peas, great northern beans, black beans, limas, and navy beans. Grains Low in Net Carbs■Grains are a good source of fiber, carbohydrates, and energy. Net carbs are equal to total carbohydrates minus the amount of fiber. The theory is that we do not digest the carbohydrates trapped in fiber.■Grains low in net carbs include oatmeal, soba noodles, bulgur, buckwheat, whole wheat pasta, cornmeal, and wild rice. Eating foods low in net carbs ensures you will digest the carbohydrates more slowly while feeling full for longer.■For more grains low in net-carbs see the complete ranking of grains low in net-carbs. Top 10 Fruits Low in Net Carbs■Fruits are an excellent source of fiber, vitamins, and energy for our bodies. Net carbs are equal to total carbohydrates minus the amount of fiber. The theory is that we do not digest the carbohydrates trapped in fiber.■Fruits low in net carbs include avocados, blackberries, raspberries, asian pears, prickly pears, strawberries, watermelon, mulberries, peaches, and cantaloupe. Below are the ten fruits lowest in net carbs, for more ideas on what fruits to eat, see the list of fruits high in fiber, and fruits low in sugar. You c

an also see the list of over 100 fruits low in net-carbs. **Top 15 Vegetables Low in Net Carbs** ■ Vegetables are among the most nutrient-dense foods around, providing the most vitamins and nutrients per calorie than other food groups. When looking for vegetables low in net carbs, choose mostly dark leafy green vegetables. There are many different kinds of dark leafy greens, and this article attempts to highlight some which might be new to you. Look out for these greens and try something new. ■ Net-carbs are equal to total carbohydrates minus the amount of fiber. The theory is that people do not digest the carbohydrates trapped in fiber. ■ Vegetables low in net carbs include alfalfa sprouts, endive, rapini, arugula, lettuce, celery, bok choy, asparagus, mushrooms, and spinach. Below are the 16 vegetables lowest in net carbs, for more, see the ranking of 200 vegetables low in net-carbs. **Beans and Legumes High in Fiber** ■ Beans are a great source of fiber, with the average cup of beans providing over 50% of the daily value (%DV). Eating more fiber significantly decreases the risk of heart disease, colon cancer, and other serious medical conditions. (1) ■ Beans high in fiber include navy beans, small white beans, adzuki beans, split peas, lentils, pintos, mung, chickpeas, and kidney beans. The current daily value (DV) for fiber is 28 grams. (2) ■ Below is a list of 19 beans high in fiber. For more, see the nutrient ranking of over 50 beans high in fiber. **High Fiber Foods** ■ Dietary fiber, also known as "roughage," is an essential nutrient required for proper digestion of foods, good gut health, and helping you feel full. (1) ■ Health benefits of fiber include reduced blood pressure, lower cholesterol, and a decreased risk for stroke, diabetes, and various gastrointestinal diseases. (1) ■ High fiber foods include beans, lentils, avocados, chia seeds, acorn squash, green peas, collard greens, broccoli, oranges, and sweet potato. The current daily value (DV) for dietary fiber is 28 grams. (2) ■ Below is a list of high fiber foods, for more, see the extended lists of fiber rich foods, vegetables high in fiber, fruits high in fiber, beans high in fiber, and grains high in fiber. **High Fiber Fruits** ■ Whole fresh fruits are extremely nutritious for a variety of reasons, including for their high fiber content. Eating more fiber significantly decreases the risk of heart disease, colon cancer, and other serious medical conditions. (1) At the same time, a high fiber diet supports gut health. ■ Passion fruit provides the most fiber of all fruits with 24.5 grams (88% DV) per cup. Low in sugar and calories, berries are also a great source of fiber. ■ Other high fiber fruits include avocados, persimmons, kiwifruit, pears, and oranges. The current daily value (DV) for fiber is 28 grams. (2) ■ Note: Since dried fruits are high in sugar, they were not included in the main list of 29 fruits. Click here to see a list of all dried fruits high in fiber. ■ Below is a list of 29 fruits high in fiber. For more, see the complete ranking of over 100 fruits high in fiber. **High Fiber Low Calorie Foods for your Weight Loss Diet** ■ For those looking to lose weight, eating fewer high-calorie foods is an essential step. High fiber foods have the added benefit of helping you feel full for longer. This article provides you with a list of low-calorie, high fiber foods. ■ Most low-calorie, high-fiber foods are vegetables including lettuce, celery, okra, radishes, asparagus, broccoli, and carrots. In several cases the calories and fiber are given for the cooked form of the food, however, the raw version will also be fine. ■ Below are 15 high fiber low-calorie foods. For more see the extended list of **Less Common Low-Calorie High-Fiber Foods**. **High Fiber Nuts**

and Seeds■Nuts and seeds are renowned for their heart-healthy benefits, due in large part to the fiber found in nuts. (1)■Nuts and seeds high in fiber include chia seeds, flax seeds, squash seeds, pumpkin seeds, dried coconut, sesame seeds, sunflower seeds, almonds, pine nuts, pistachios, and chestnuts. The daily value (DV) for fiber is 28g per day (2), and a one-ounce portion of high fiber nuts or seeds provide between 5 and 35% of that daily value. A one-ounce portion of nuts or seeds is roughly equal to a handful.■Chia and flax seeds have the added benefit of being high in heart-healthy omega 3 fatty acids. Almonds, walnuts, and pistachios have been shown to lower cholesterol.■Any of the fiber-rich nuts and seeds listed below are a great addition to a healthy diet, with 1-2 ounces of nuts or seeds being a good daily portion size.■Below are the top 10 nuts and seeds highest in fiber. For more see the extended list of over 40 nuts and seeds high in fiber.

High Fiber Vegetables■

Vegetables are arguably the healthiest of all the food groups and are a great source of fiber.■Eating more fiber significantly decreases the risk of heart disease, colon cancer, and other serious medical conditions. (1) At the same time, a high fiber diet supports gut health.■Unfortunately, research has shown that only about 5% of the US population is currently meeting recommended targets for fiber intake. (2)■Vegetables high in fiber include lima beans, acorn squash, green peas, collard greens, artichokes, parsnips, broccoli, carrots, spinach, and more. The current daily value (DV) for fiber is 28 grams. (3)■Below is a list of 33 vegetables high in fiber. For more, see the article on high fiber foods and also the list of 200 fiber rich vegetables.

Whole Grains High in Fiber■

A high fiber diet promotes gut health and healthy gut bacteria, while decreasing the risk of heart disease, colon cancer, and other serious medical conditions. (1)■Whole grains are rich in nutrients and have high levels of bran, giving them high amounts of fiber. When whole grains are refined—for example, processing whole wheat flour into white flour, or brown rice into white rice—most of the fiber (along with other important nutrients) is removed.■Bulgur (made from whole wheat) has the most fiber of all grains with 8.2 grams (29% DV) per cup. Other grains high in fiber include kamut, teff, pearl barley, quinoa, whole-wheat pasta, buckwheat, oatmeal, whole wheat bread, and brown rice. The current daily value (DV) for fiber is 28 grams. (2)■Below is a list of 15 grains high in fiber ranked by the amount of fiber per cup cooked. To sort the list by 100 gram or 200 calorie serving sizes, see the nutrient ranking tool list of grains high in fiber.

A Soup Calorie Ranking from Lowest to Highest■

Soups often enter weight loss diet plans, but not all soups are created equal. Which soup to choose? According to the ranking below it is best to choose water-based soups which are lower in fat and calories than cream-based soups.■The serving sizes presented below are per 8oz cup, which is the standard cup use in baking and cooking. Most people will consume 1-2 cups of soup per serving.■Below is a ranking of soups by calorie from lowest to highest. Soup broths have the fewest calories, as they also have the fewest ingredients. Other soups low in calories include chicken noodle, egg drop soup, vegetable soup, and wonton soup. Different recipes affect the caloric content of any of these soups. Any high calorie foods added to these soups will increase the caloric content. Pay attention to ingredients.■In general, the more water a soup contains the fewer calories it will have. For more diet ideas see the article on low-calorie foods.

Healthy Wei

Weight Gain Meal Plans for People on a Budget■The following meal plans are for anyone who is underweight and looking to gain weight on a budget. They are based on simple foods that should be easy to find in your local supermarket in most countries. They can also be used by people who would like to build muscle if used in combination with an appropriate strength training program. Days 1-5 provide approximately 3000 calories and would be expected to result in weight gain of 1-2lbs (0.5-1kg) per week, depending on gender, body size, and activity level.■Days 4 and 5 are designed for people who would like to cook food in batches for the week to save time. That said, variety is key to a healthy diet, so try to vary your diet as much as possible including different fruits and vegetables with the meals.■Days 6 and 7 are slightly different, providing 4000 calories. These days should only be followed by highly active people who are training regularly and looking to increase their muscle mass significantly. These days should not be followed by people who are not training, as they will result in an unhealthy increase in body fat and over time could increase the risk of health problems associated with eating too many calories. People who lead extremely inactive lifestyles may wish to skip one or two of the snacks in order to reduce the calorie intake to 2500. If in any doubt, please consult a nutritionist, dietitian, or personal trainer for further advice.■The meal plans are designed to provide a balance of carbohydrates, protein, and fats. For more weight gain ideas see the article on high calorie foods, and the other set of weight gain meal plans.

High Calorie Foods■Calories are the basic unit of energy used for measuring the energy in food and we all need a certain number of calories to maintain the body's vital functions. The number of calories a person needs depends on factors such as age, gender, and lean muscle mass.■Eating too few calories for a prolonged period of time causes a person to become underweight leading to muscle atrophy, weakened immunity, and eventually, organ failure. Conversely, eating too many calories causes a person to become overweight then obese, increasing their chances of heart disease, type II diabetes, and cancer.■People looking to gain weight in the form of lean muscle mass can aim to eat around 3000 calories per day depending on how many strength-building exercises they are doing.■Healthy high-calorie foods include granola, meats, tofu, fish, avocados, milk, beans, sweet potatoes, whole grains, and nuts. In general, the daily value (DV) for calories is 2000 calories per day, but people active with strength training or other exercises may want to consume more.■Below is a list of the top 10 high calorie foods ranked by common serving size, if you are looking to lose weight, see the list on unhealthy high calorie foods to avoid. If you are looking to gain weight, see the section on select meal portions for eating more calories, and the article on high calorie weight gain meal plans.

High Calorie Foods to Avoid■High-calorie foods with low nutrient value (referred to as "empty calories") are widely consumed throughout the world, particularly in the typical "Western" diet. Increases in food production have led to increases in portion sizes, and in turn, increases in waistlines. This chain reaction has fuelled the obesity epidemic, with over a third of the U.S. population now classified as clinically obese.■In addition to reducing portion sizes, avoiding the high-calorie foods listed below is a great way to improve your health and help manage your weight.■High-calorie foods to avoid include fast foods, processed meats, desserts, candies, fatty meats, white

bread products, snacks, sugary drinks, alcohol, and condiments. The daily value (DV) for calories is 2000 calories per day. Those wanting to lose weight should aim for 1500-1800 calories per day.■For more information see the article on low-calorie high fiber foods, high protein low carb weight loss meal plans, and the BMI weight loss calculator. Looking to gain weight or pack on healthy lean muscle? Check out the list of healthy high calorie foods.**High Calorie Weight Gain Meal Plans**■If you are underweight or simply looking to gain weight, the following high-calorie meal plans can help you reach your goals. They are designed for anyone who is looking to gain weight in a healthy way. They can also be used by people who would like to build muscle if used in combination with an appropriate resistance-training (weight-lifting) program.■Days 1-5 provide approximately 3000 calories and would be expected to result in weight gain of 1-2lbs (0.5-1kg) per week, depending on gender, body size, and activity level. Day 4 is designed for vegetarians and Day 5 is vegan, and these 2 days also provide approximately 3000 calories. Days 6 and 7 are slightly different and should only be followed by those who are training regularly and looking to increase their muscle mass significantly. Day 7 is a high protein day, which can help increase muscle growth even more effectively.■People who are not exercising should skip some of the snacks in order to achieve healthy weight gain.■For more meal ideas see the healthy high calorie weight gain meal plans for people on a budget, the list of high calorie foods, and the list of high protein foods.**High Energy Foods**■One of the best ways to lead a healthy lifestyle and maintain a healthy weight is to eat food that sustains your energy levels throughout the day. The following list gives you 12 common foods that have been chosen for their ability to provide the body with energy.■Some of the foods provide slow-releasing energy from healthy carbohydrates, which are the body's main energy source. Others contain a range of important vitamins and minerals involved in cellular energy production processes in the body.■Good quality protein sources are also included, as these are needed for maintaining body tissues, including muscle.**High Fiber Low Calorie Foods for your Weight Loss Diet**■For those looking to lose weight, eating fewer high-calorie foods is an essential step. High fiber foods have the added benefit of helping you feel full for longer. This article provides you with a list of low-calorie, high fiber foods.■Most low-calorie, high-fiber foods are vegetables including lettuce, celery, okra, radishes, asparagus, broccoli, and carrots. In several cases the calories and fiber are given for the cooked form of the food, however, the raw version will also be fine.■Below are 15 high fiber low-calorie foods. For more see the extended list of **Less Common Low-Calorie High-Fiber Foods**.**Low Calorie Foods**■For those looking to lose weight, including low-calorie foods in your diet is an essential step. This article provides you with a list of healthy, low-calorie foods to incorporate.■Low-calorie foods include water, tea, salad greens, soup broth, mushrooms, strawberries, vegetable soup, whole grain toast, cod, eggs, and low-fat cottage cheese. An average woman on a weight-loss diet should aim to eat between 1500-1800 calories per day, depending on how active they are. Men will require approximately 500 calories more.■Below are 10 healthy low-calorie foods, for more see the full ranking of all foods low in calories.**Low Calorie Fruits**■Fruits are one of the healthiest and most nutrient dense food groups: they are a great source of fiber, vitamins, antioxidants and water.

They are also one of the lowest calorie foods and are therefore great for anyone trying to lose weight. Not all fruits are created equal, however. Some are higher in natural sugars, and calories than others. The list below is designed to provide you with the lowest-calorie fruits. These include strawberries, peaches, cantaloupe, honeydew melon, grapes, blackberries, and papaya. For more, see the complete nutrient ranking of fruits low in calories.

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Low Calorie Vegetables

■ Apart from water and some very thin soups, vegetables are the lowest calorie food group. While nearly every vegetable is low in calories, some are lower than others. ■ To keep vegetables low in calories and retain the most nutrients, it is best to eat them raw or steamed. ■ Low-calorie vegetables include watercress, lettuce, arugula, sprouts, napa cabbage, cucumber, and celery. Below are the 20 lowest calorie vegetables. For more see the full ranking of over 200 low-calorie vegetables. ■ For more low calorie foods, see the article on foods low in calories.

Low Calorie Wines

■ For those trying to manage their weight, knowing the calorie content of different wines can be useful. ■ The number of calories a wine contains is dependent on the alcohol and sugar content. Generally, the higher the alcohol, the higher the calories. This is because alcohol provides 7 calories per gram, compared to carbs and protein, which only provide 4 calories per gram. If a wine is low in alcohol but high in calories, then it is likely to be a sweet wine, high in sugar. ■ A 5oz glass of wine typically contains between 109-130 calories. A simple trick to find approximately how many calories 5oz of wine contains is to take the percent alcohol and multiply it by 12. Thus, a wine that is 10% alcohol by volume (ABV) will contain about 120 calories per 5oz (150ml) glass. Most adults however, typically consume at least 10oz of wine at a sitting, so double this. ■ Below is a ranking of wines from lowest to highest. Non-alcoholic wine is easily the lowest in calories, providing just 9 calories in a glass. A light wine at 6.5% ABV provides 73 calories per glass. After that, most wines provide 109-120 calories in a 5oz glass or 220-240 calories in a 10oz serving. Sweet dessert wines tend to have a higher alcohol and sugar content and can pack as many as 236 calories in a single 5oz glass. That is 12% of the total calories you should consume in one day!

Nuts and Seeds Highest in Calories

■ For those looking to gain weight and eat more calories, nuts and seeds can be a great option. In addition to being high in protein and fiber, nuts and seeds can add a real boost to your overall caloric intake. ■ A one-ounce portion of nuts (about a handful) provides between 128-204 calories. Assuming a daily goal of 2000 calories (DV) this is between 6-10% DV for a handful of nuts. Nuts and seeds high in calories include macadamia nuts, pecans, dried coconut, Brazil nuts, walnuts, pine nuts, almonds, peanuts, and sunflower seeds. ■ Even though peanuts are technically legumes, they are included in this list since they are commonly consumed as nuts. ■ Below are 12 nuts and seeds highest in calories. For more, see the list of high calorie nut and seed butters, and the complete ranking of all nuts and seeds high in calories.

Vegan Weight Gain Foods

■ Vegan or plant-based diets are gaining in popularity as there are many health benefits associ-

ated with this way of eating. A plant-based diet reduces your risk of many of the common diseases of today, including obesity, heart disease, type 2 diabetes, and various types of cancer (1,2,3).■When trying to gain weight on a vegan diet, there are a couple of factors to consider. Firstly, it is necessary to increase your calorie intake, so that you consume more energy than you burn. Secondly, ensuring you are eating adequate protein, in combination with some form of resistance exercise will help you to build muscle mass.■As a general rule, around an extra 500 calories per day is a good "benchmark" and when you exercise, you can increase this a little more. It is important to obtain the extra calories from across the range of food groups; protein, carbohydrates, and healthy fats.■Resistance exercise is any type of exercise that causes muscles to contract against a force or resistance; this can be free weights, weight machines or your own body weight. For example, weight lifting, squats, lunges, push-ups and even yoga. Resistance exercise builds and tones muscles and makes muscles stronger, it also increases bone strength. For general health, it is also recommended to include 150 minutes of cardiovascular exercise per week, but keep this light when trying to gain weight.■Many bodybuilders and gym-goers are convinced that you need animal protein to build muscle. There are however many successful vegan bodybuilders and athletes. There is also a new school of thought that the inflammation caused by animal proteins might actually hinder athletic performance.■If you are following a plant-based diet and want to gain weight, this article may be useful for you. It includes high-calorie vegan foods, along with high-protein vegan foods for supporting muscle building. Foods Low in Vitamin K for a Warfarin (Coumadin) Diet■If you are taking an anticoagulant or a blood thinner, like Warfarin (Coumadin), then it is important to keep your PT/INR (Prothrombin Time and International Normalized Ratio) levels stable. PT/INR measures factors for blood coagulation.■The amount of vitamin K you can eat while taking warfarin depends on your dose. Studies suggest that effects on coagulation only occur after eating 150mcg (micrograms) of vitamin K. (1) What is important is that your intake of vitamin K stays consistent. (1,2) Having a cheat day where you eat a large amount of vitamin K, like a spinach salad, could be harmful.■High amounts of vitamin K are mainly found in green vegetables like kale, spinach, cucumbers, and cabbage.■This is a guide to which foods you can eat and in what amounts. The exact amounts will depend on your dosage of Warfarin. Listed below are foods very high in vitamin K (240mcg+ per serving), and high in vitamin K (60mcg+ per serving).■The current daily value (DV) for Vitamin K is 120 micrograms (mcg). (3) It is displayed in this article to help you compare levels of vitamin K in foods. Depending on your doctor and situation 120mcg for men and 90mcg for women may be a generally accepted target for Vitamin K while on Warfarin.■Foods low in vitamin K are also presented by food group with sample serving sizes and amounts of vitamin K. For more ideas, use the nutrient ranking tool to sort by food group and serving size. High Vitamin K Foods■Vitamin K is an essential vitamin required for protein modification and blood clotting. (1)■Recent studies suggest that vitamin K may play a role in treating osteoporosis and Alzheimer's. (2, 3) and that consuming increased levels of vitamin K can help protect against cancer and heart disease. (4,5)■Unless you are taking medication to prevent blood clots, like Warfarin or Coumadin, there is no known risk of vitamin K toxicity, and no rea

son not to eat a lot of it. If you are on Warfarin (Coumadin), please check the article on low vitamin K foods for a Warfarin diet. ■ Foods high in vitamin K include leafy green vegetables (cooked and raw), broccoli, Brussels sprouts, cabbage, pickled cucumber, asparagus, kiwifruit, okra, green beans, and salad greens like lettuce. The current daily value (DV) for Vitamin K is 120 micrograms (mcg). (6,7) ■ Below is a list of foods high in vitamin K sorted by a common serving size. For more, see the extended list of less common foods rich in vitamin K, or view, sort, and filter vitamin K foods using the nutrient ranking tool which lists over 200 foods high in vitamin K. Low Vitamin K Juice Recipes ■ Vitamin K, the blood coagulation vitamin, antagonizes the effect of blood thinners like Warfarin (Coumadin). Thus, if you are taking such a blood thinner it is important to keep your vitamin K intake consistent. ■ Since most green vegetables, and "juicing vegetables" are high in vitamin K, it is best not to make juice from them. Juices should be made from low vitamin K fruits, and/or dairy products. Soy products should be avoided, however, juice from other beans and grains is generally ok. ■ Fruits that affect PT/INR and warfarin should be avoided. These include citrus (grapefruit, oranges, lemons, limes), cranberries, pomegranate, mangoes, and blueberries. ■ For a list of low vitamin K foods to use, see the article on low vitamin K foods for a warfarin diet. You can also use the nutrient ranking tool to find more foods low in vitamin K. Below are some sample low-vitamin K juice recipes.

17 Fruits Highest in Water ■ Water is an essential nutrient required to maintain homeostasis in our bodies. ■ A deficiency in water, called dehydration, leads to headaches, loss of appetite, confusion, unexplained tiredness, and even seizures. Excessive dehydration can even lead to death. ■ Conversely consuming too much water can lead to nausea, muscle cramps, vomiting, and in extreme cases, death. ■ The U.S. Reference Dietary Intake (RDI) for water is 3.7 liters (130oz) per day for men and 2.7 liters (95oz) for women. Though people who are active and under the sun may need up to 16 liters (565oz) per day. ■ Even though most vegetables provide more water than fruits, fruits are still a great source. ■ Fruits high in water include watermelon, strawberries, grapefruit, cantaloupes, peaches, Asian pears, blackberries, and papayas. ■ In addition to the 17 fruits listed below, you can see nutrient ranking of over 100 fruits and fruit juices high in water.

17 Vegetables Highest in Water ■ Water is an essential nutrient required to maintain homeostasis in our bodies. A deficiency in water, called dehydration, leads to headaches, loss of appetite, confusion, unexplained tiredness, and even seizures. Excessive dehydration can even lead to death. ■ Conversely consuming too much water can lead to nausea, muscle cramps, vomiting, and in extreme cases, death. ■ The reference dietary intake (RDI) for water is 3.7 liters (130oz) per day for men and 2.7 liters (95oz) for women. Though people who are active and under the sun may need up to 16 liters (565oz) per day. ■ Of all foods, vegetables provide the most water, often being over 90% water by weight. Vegetables high in water include lettuce, celery, bok choy, radish, cucumber, zucchini, watercress, tomatoes, green bell peppers, and asparagus. ■ In addition to the 17 vegetables listed below, you can see the and sort the nutrient ranking of over 200 vegetables high in water.

How Much is 100 Grams? ■ Many of the nutrient ranking articles are posted in 100 gram servings. But what does 100g actually look like? ■ Below is a list of what 100 grams equals for a wide variety of foods.

Top 10 Foods and D

High in Caffeine■Caffeine is a chemical naturally found in several plant foods and drinks. Synthetic supplemental forms of caffeine are also produced and added to foods. Due to caffeine's stimulating and addictive qualities, it is finding its way into more and more unhealthy foods including sodas, candies, and energy drinks.

■The health benefits and costs of caffeine are controversial with numerous studies to document both benefits and health problems due to caffeine. The upper intake limit (UL) of caffeine intake is 400mg for adults and less than 85mg for kids.■High caffeine foods and drinks include chocolate-covered coffee beans, coffee, energy drinks, espresso, sodas, green tea, black tea, dark chocolate, coffee liqueur, and baked goods containing chocolate.■For all these foods and drinks the amount of caffeine is an average. The actual amount of caffeine can vary based on how strongly tea or coffee is brewed, and as to how much caffeine is added to various colas and energy drinks.

Top 10 Foods and Drinks Highest in Fluoride■Fluoride is a mineral well known for strengthening teeth and helping prevent dental cavities. (1) Since the amount of fluoride in foods can vary, it is added to public water supplies in some countries, including the US.■According to the National Library of Medicine (NLM), the amount of fluoride you need depends on your body mass (weight). Children typically need 0.5mg (500mcg) per day, while adults need 3-4mg (3000-4000mcg) of fluoride each day. (1) For the adequate intake (AI) calculations below 4mg (4000mcg) was used.■Since consuming too much fluoride can have ill health effects, the NLM sets the upper limit at 10mg, or 10,000mcg. This is just 2.5 times the adequate intake.■Fluoride tends to accumulate in a mixture of both healthy and unhealthy foods including tea, coffee, shellfish, grapes (raisins, wine, grape juice), artificial sweeteners, sodas, potatoes, flavored popsicles, baby foods, broths, stews, and hot cereals made with tap water. If fluoride fortified water is used to make these foods and drinks, they will contain even more fluoride. ■Further sugary or carbonated drinks can lead to more tooth decay, wiping out any good effect from the fluoride.■For all these fluoride foods and drinks, if fluoride fortified water was used in their creation, they will have even more fluoride. Below are the top 10 sources of fluoride, for more, see the extended list of fluoride rich foods and drinks.

Vegan and Vegetarian Foods for Hiking and Camping■Campers and hikers need foods which are healthy, lightweight, do not spoil, and do not cost too much.■The foods should also provide healthy carbs, protein, fats, and electrolytes to make up for a long day of hiking.■Good vegetarian camping foods include dried foods, nuts, and canned foods. Eating fresh fruits and vegetables when you get a chance is also good, but not practical for longer trips.■The list below gives some suggestions for healthy and inexpensive hiking and camping foods for vegans and vegetarians.