



Optimize Your Health with **TRACE MINERALS**

Ignorance about nutrition has caused untold disease, suffering, and premature death. Less than 200 years ago, only major nutrients like fats, proteins, carbohydrates, and a few minerals like iron and calcium, were understood to be essential for human nutrition. It was only about 100 years ago that scientists discovered the importance of vitamins and the importance of many trace minerals.

Unfortunately, during the very same period of time researchers were discovering the importance of these nutrients and other phytochemicals, people were starting to get fewer of them as they started to consume more and more processed foods. These refined foods are lacking in many of the important nutrients needed for life, but they have become dietary staples in most Western diets.

In this issue of Sunshine Sharing we'll look at the importance of twelve minerals and elements that are essential to human health. Many of these are deficient in modern diets, resulting in unnecessary sickness and suffering. Research into the importance of these nutrients is ongoing, and recommended daily allowances (RDAs) have not been established for some, while the RDAs for others are too low to support optimal health. Now, let's discuss how you can increase your intake of these important nutrients to improve your health.

Increasing Trace Mineral Intake

The best way to increase your intake of minerals is through foods and herbs. The body is able to absorb and utilize minerals from foods more efficiently than from supplements. Unfortunately, commercially-raised foods are often deficient in these minerals, even before refining removes even more of them. You can use the following herbs and supplements to increase your general intake of trace minerals.



Alfalfa: Alfalfa is a great source of trace minerals because it has extremely deep roots. Thus, it is able to access minerals that other plants can't reach. Alfalfa is so good at getting these minerals that it can be used to help farmers replenish the soil. They can grow alfalfa in field for a couple of years and then till it into the soil to enrich the soil for other crops.

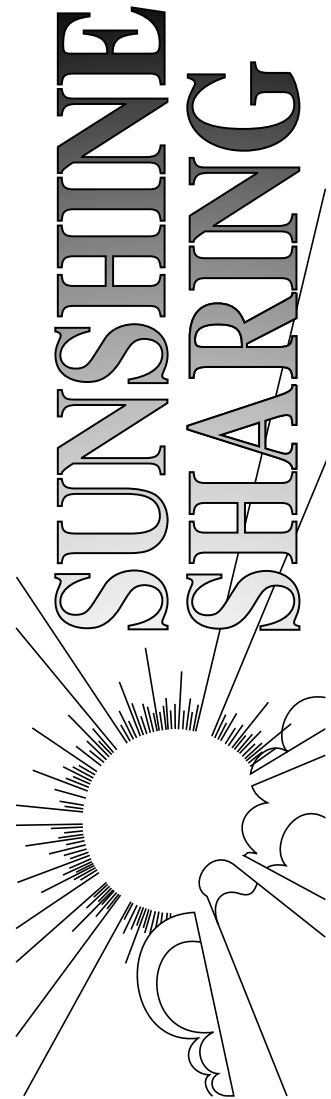
You can get the benefit of the minerals in alfalfa by taking 6-12 capsules or tablets a day for several months. This will help to rebuild your mineral reserves. After that, you can take 3-6 capsules daily for health maintenance. Alfalfa can also be combined with other mineral-rich herbs such as nettles, horsetail, oatstraw, wheat grass, and barley grass. Combinations of these mineral-rich herbs can improve the health of bones, teeth, joints, and other body structures, as well as improve overall health.

Seaweeds: The ocean is a rich source for all of the elements, including trace minerals. So seaweeds, like kelp and dulse, are good sources of trace minerals. They are also a good way to increase iodine intake. Just be sure to get seaweeds from waters that are not contaminated with heavy metals.

Liquid dulse is a good supplement for supplying both iodine and trace minerals. It is pleasant-tasting and can be given to children as well as adults. You can also sprinkle kelp or other seaweeds into soups, stews, and other foods to fortify them with more minerals. They have a salty flavor, so they can be used in place of salt. You can also take them in capsules.

Unrefined Salt: Using unrefined salt is another way to increase trace mineral intake. Again, this is because seawater contains all the trace elements. Just be sure to use an unrefined salt, such as Redmond, Celtic, or Himalayan salt.

Continued inside



Your guide to better health the natural way.

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Important Notice

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These unrefined salts will not be white due to the presence of these other elements.

Colloidal Minerals: People all over the world have sought out certain springs of water for healing. The water from these springs is typically rich in various trace minerals, including some of the minerals discussed in this newsletter, such as sulfur or lithium.

A rancher in Southern Utah was the first to create a colloidal mineral products after he found that drinking water from the spring on his ranch healed him. He sought out a geologist, who determined that the spring came from a mineral-rich clay filled with prehistoric plant material. As the water trickled over the clay, it picked up over 60 different trace minerals. This particular clay is known as montmorillonite.

After some experimentation, he developed an extraction process which produced a super saturated mineral water, which he sold as a colloidal mineral supplement. Since then, many similar colloidal or ionic mineral supplements have produced and sold.

The montmorillonite clay and similar clays from various other deposits have also been sold in bulk and tablet form. The bulk clay is used to restore mineral content to depleted soils, and is used as a supplement in animal feed. While you can supplement with the tablets, it's easier to absorb the minerals using the liquid form.

With this background, here are twelve different trace minerals and elements that are valuable to know.



Boron

Boron is an essential trace mineral that affects the way the body handles other minerals such as calcium, magnesium, and phosphorus. It is necessary for bone development and may help to increase estrogen levels in post-menopausal women. It can also be helpful for relieving painful periods and may even have antioxidant effects. It is sometimes included in supplements for bone health, which is probably the best way to supplement with it. There is no RDA for boron.

Chromium

Although chromium is widely available in foods, a large part of the population (25-50%) probably isn't getting enough. Chromium helps maintain normal blood sugar levels and a large percentage of the population has problems with blood sugar because they aren't getting enough chromium.

The RDAs for chromium are probably too low for optimal health. While the RDAs for males 14-50 is 35 mcg and 30 mcg for men over 51 and for women 18-50 is 25 mcg and 20 for women over 51, a better base for health would be at least 200 mcg per day. Therapeutic doses of chromium range from 200 mcg to 1,000 mcg and chromium supplements are well tolerated with no ill effects at these dosage levels.

Chromium picolinate appears to be one of the more easily absorbed forms. A combination of chromium and niacin (vitamin B3), known as GTF chromium, is also easily absorbed. GTF chromium is especially helpful for insulin regulation, lowering cholesterol, and reducing food cravings.



People who have diabetes, metabolic syndrome, high cholesterol, and cardiovascular problems should consider supplementing with chromium. Chromium supplementation may also help women with polycystic ovarian syndrome (PCOS), mood disorders (anger, confusion, anxiety, and depression), hypoglycemia, PMS Type C, and psoriasis.

Copper

Copper is used to keep body tissues elastic and flexible. It is used in hemoglobin formation, because it aids the utilization of iron, and is part of the pigmentation of hair and skin. Copper is also used in energy metabolism, the development and repair of bone and connective tissue, the formation of myelin sheath, adrenal and thyroid hormone production, RNA production, and immunity. Deficiencies can result in joint problems, osteoporosis, hardening of the arteries and a loss of elasticity in blood vessels, loss of hair color and reduced immune function.

The RDA for copper is 900 mcg for both adult men and women, although it's probable that the level for optimal health is around 1.5 to 2.5 mg. Copper deficiency does not appear to be common, so you can generally get enough copper from a good multi-vitamin. Typical dosage forms include copper citrate and glycinate. You can also get copper by taking liquid chlorophyll (sodium copper chlorophyllin) which is a stable form of chlorophyll where the magnesium in the chlorophyll has been replaced with copper.

Signs of possible deficiency include spider or varicose veins, burning hands and feet, and greying of the hair (but this can also be a zinc or manganese deficiency). Too much copper is problematic because copper and zinc need to be in proper balance. Copper aids the production of excitatory neurotransmitters, such as epinephrine, while zinc helps the body produce calming neurotransmitters, like GABA. Thus, if copper levels are too high and zinc levels are too low, it can cause irritability, anxiety and other mental and emotional problems.



Iodine

Although iodine is not a mineral, it is an important trace element. Iodine is abundant in foods from the ocean or grown near the ocean. Plants grown inland typically have little or no iodine. In the past, iodine deficiencies were very common in many inland areas, producing goiters, stunted growth, and even mental retardation. These problems were largely eliminated by adding iodine to refined salt.

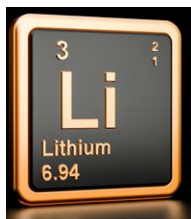
Iodine is essential to the production of thyroid hormones, but it is also important for breast, uterus and prostate health as well as adrenal and immune function. Chlorine, fluoride, and bromine all displace iodine in the body and may be causing an increased need for this nutrient. If a person has an autoimmune thyroid condition, they probably need to take selenium along with iodine.

The RDA for iodine is 150 mcg per day, but some researchers believe this isn't enough for optimal health. People who live near the ocean and eat seaweeds and other foods from the sea may get as much as 10-12 mg of iodine daily. So, it would probably be better to get a minimum of at least 1 mg (1,000 mcg) per day.



A good range for basic supplementation is 200 mcg to 5 mg daily, which can easily be obtained by adding seaweeds to the diet. Higher doses, 25–50 mg, have been used to help detoxify fluoride or bromide, fight infections, or aid recovery from breast cancer. These higher doses should be undertaken with the guidance of a qualified practitioner who can monitor their effects.

If one is exposed to radiation (such as a dirty bomb, reactor meltdown, or nuclear fallout), potassium iodide should be taken daily until the danger is passed. So, it is wise to store potassium iodide as part of emergency preparedness supplies. Recommendations are as follows—adults: 130 mg, teenagers and children (13–18 years): 65 mg, young children (1 month–3 years): 32 mg.



Lithium

Lithium is a naturally occurring trace mineral in many mineral water springs. It was originally a component of the beverage 7-Up. Lithium was found to benefit bipolar disorder in the late 1800s and is still used for this problem today. Research from animal models shows that it likely works by reducing arachidonic acid and increasing DHA in the brain, thus reducing the inflammatory cascade at the root of many brain problems including depression and anxiety.

Lithium also helps to regulate the circadian rhythm and improve sleep. It can reduce the inflammatory processes in ALS and is being researched for dementia and Alzheimer's disease.

In places where lithium content is high in the water (2 mg per liter on average) there are reductions in suicide, homicide, and drug use. Some researchers are pushing for a RDA of 1–2 mg a day. Lithium orotate is available as a supplement and provides 5 mg of lithium per 120 mg capsule. One dose per day is sufficient. Higher doses (15 mg or more) will cause thirst, frequent urination, low thyroid, nausea and vomiting. Because lithium can make you feel sleepy, it's best to take it at bedtime.

Manganese

Manganese plays roles in carbohydrate metabolism, protein metabolism, connective tissue health and joint fluid production. It is also important in vitamin B1 utilization. Deficiency symptoms may include nausea, dizziness, vomiting, skin rash, hearing loss, iron-deficiency anemia, high blood sugar levels, low blood cholesterol levels, impaired bone growth or skeletal abnormalities, excessive bone loss, weak hair and nails, loss of hair color, defective functioning of the reproductive system and hernias.

The RDA for manganese is 2.3 mg for adult males and 1.8 mg for adult females. Possible dosage forms include manganese aspartate and citrate. Deficiencies are not common, so it's best to take manganese as part of a multi-vitamin or bone health supplement.

Molybdenum

Molybdenum is an essential trace element. It is an important enzyme activator and used for detoxification in the liver. Deficiency is uncommon, but it can be taken as a supplement to counterbalance copper toxicity or aid liver detoxification.

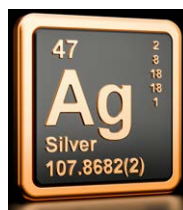
Selenium



Selenium is an essential trace mineral but it is also toxic in large doses. It is essential to good health because it functions as a cofactor in the reduction of antioxidant enzymes such as glutathione peroxidase. Thus, it helps prevent free radical damage. Research suggests that adequate levels help to protect the body against cancer.

It also works well with vitamin E to mitigate the development of rheumatoid arthritis, reduce elevated blood pressure, aid restoration of hair color, and reduce the risk of atherosclerosis. Selenium and zinc work together to strengthen a weakened immune system. Autoimmune thyroid conditions, like Hashimoto's thyroiditis, may be related to selenium deficiency.

The RDA for selenium is 55 mcg per day. It's probable that a person needs up to 200 mcg for optimal health. Supplementation of 50–200 mcg per day may be helpful for the problems mentioned above. A good dosage form is selenomethionine. Other forms include selenium citrate and sodium selenite.



Silver

Although silver is not recognized as an essential nutrient and there is no RDA for silver, it does have beneficial effects in the human body. So, silver should probably be considered an essential trace element.

It has long been known that silver has an antimicrobial action. Crossing the plains, pioneers, could keep their water from going bad by putting a few silver coins in the bottom of the water barrel. Nobility in ancient Europe typically avoided the plaques that affected the general population because they used silverware for eating and drinking. In fact, royalty got enough silver because of this that they sometimes developed argyria, a condition characterized by a blue/gray discoloration of the skin. This is why royalty became known as "blue-bloods."

Many people supplement with a nanoparticle or colloidal silver product daily, claiming it helps prevent them from getting infections. It may have other health benefits as well. Nanoparticle silver products can also be used topically to prevent infection and speed healing of wounds. Silver can be used as a gargle for sore throats, a nasal spray for sinus infection, ear drops for ear infections, and an eye wash for eye infections. A gel can also be used to prevent infections in wounds and speed healing as well.

Sulfur

Sulfur isn't a trace element because it's actually the third most abundant mineral in the human body. But, it's rarely mentioned when talking about nutrition or healing. Yet, sulfur has many nutritional and healing benefits.

Sulfur mineral springs have long been sought out for healing and prior to the discovery of antibiotics, sulfur drugs were once used to fight infections. Sulfur also helps reduce pain and inflammation in joints. It is involved in blood sugar regulation and is necessary for healthy hair, skin, and fingernails.



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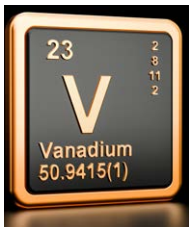


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Sulfur is also part of many other nutrients, including the amino acids methionine, cysteine, and taurine, vitamin B1, glutathione, coenzyme A, and the anticoagulant heparin. It's also found in many nutritional supplements, including methylsulfonylmethane (MSM), N-acetyl cysteine, and S-adenosyl-L-methionine (SAMe).

Sulfur-rich herbs, such as garlic, onions, and cruciferous vegetables, improve protein metabolism, boost the immune system, and aid detoxification in the liver. Historically, sulfur has been abundant in the food supply, but people in modern society may not eat enough sulfur-rich foods to maintain healthy levels of sulfur.



Vanadium

Vanadium is one of the trace minerals needed for healthy bones and teeth. It also lowers blood fats and inhibits cholesterol synthesis. Vanadium also plays a role in blood sugar regulation in diabetes and metabolic syndrome.

Excess vanadium can be toxic. A basic and safe dose would be 1-2 mcg a day. Therapeutic doses for diabetes could be as high as 15-100 mcg per day, but it would not be a good idea to use that high of a dose long term. Vanadyl sulfate is a popular dosage form.

Zinc

Zinc deficiencies are quite common, especially in men. Men lose zinc with every ejaculation and zinc is vital for testosterone production and prostate health. Zinc is also used in regulating blood sugar, healing wounds, and fighting infections. Zinc deficiencies can result in hair loss and greying of the hair, dry skin, loss of the senses of smell and taste, and vision and hearing loss.

The RDA for zinc for adult males is 11 mg and 8 mg for adult females. It's likely that 20-25 mg is a more optimal level for health. Supplementation is usually 10-50 mg a day. If you supplement above 50 mg also take about 2 mg of copper to help keep zinc



and copper in balance. Some specific reasons to supplement with zinc include the following.

Men with reproductive problems like low testosterone, low sperm count, BPH or prostatitis, premature ejaculation, or erectile dysfunction should probably supplement with zinc. It should also be used to help prevent and treat viral infections, including colds, flu, herpes, and COVID-19. In fact, the loss of the sense of smell in COVID is likely due to its depletion of zinc in the body. For boosting immunity, it's wise to take zinc with vitamin C, vitamin D3, and possibly selenium.

Anxiety disorders, excessive aggression and irritability, and obsessive-compulsive disorder may also be aided with zinc. Zinc helps to promote the production of calming neurotransmitters in the brain. In these cases, consider taking it with magnesium, vitamin C, and the B-complex vitamins.

Greying of the hair and slow wound healing in the elderly may also be signs of zinc deficiency. Seniors are often zinc deficient because of low stomach acid, which makes it difficult to absorb many minerals. The problem is that zinc is needed to make stomach acid. So, it's wise in this case to take zinc along with a betaine HCl supplement.

Zinc and vitamin C may also be helpful for healing from injuries. It can also be helpful for autoimmune thyroid disorders (along with selenium). Excessive iron in the blood, hemochromatosis, may also involve zinc deficiency. Zinc can also be helpful for recovery from heavy metal poisoning, including cadmium and lead exposure.

Additional Help and Information

For more information about the importance of trace minerals and using trace minerals for healing contact the person who gave you this newsletter. You can also consult the following resources:

Strategies for Health by Steven Horne

Empty Harvest by Bernard Jensen and Mark Anderson

Minerals for the Genetic Code by Charles Walters

Professional Guide to Conditions, Herbs, and Supplements by Integrative Medicine Communications