



## Trace Minerals Found in America's Dead Sea, The Great Salt Lake

**“You can trace every sickness, every disease, every ailment to mineral Deficiency”  
Two-time Nobel Prize winner Linus Pauling**

Ojaván Products chose the Great Salt Lake as its source for mud, salt & heavy mineral water because it contains some of the world's best and highest mineral content. Ojaván Products help replenish the body with the needed trace minerals & elements. All of our natural skincare products contain the trace minerals and elements needed to maintain healthy skin. The following information helps explain what trace minerals are and how they help feed your skin.

The health of one's skin reflects inner health. The human skin is the largest organ of the body and is highly involved in the detoxification and maintenance of health. Skin not only excretes and eliminates toxins; it also has a tremendous capacity to absorb health supportive substances. Natural skin therapies can have pronounced and powerful health effects.

Elements are the basic building blocks of our lives. While our bodies need some minerals, like calcium, in large amounts for bones and teeth, there are other minerals, called trace minerals that our bodies require in minute amounts for the processes such as metabolism, digestion and more.

As important as vitamins are, they will not work without trace minerals present. Trace minerals are the co-factors or tools that make everything happen in the body. While the focus in health supplements is often on vitamins, many of the trace minerals are necessary in order for our bodies to actually absorb vitamins & other nutrients properly. Various trace minerals serve as catalysts or necessary ingredients in electrical or chemical reactions in the body. These trace minerals include iron, manganese, copper, iodine, zinc, cobalt, fluoride, & selenium. Despite the minute amounts needed by the body, their lack can cause serious health conditions. Elements combine with one another in different proportions to form everything from the air that we breathe, to the wood we use to build our homes, to our own bodies.

Years ago it was easier to get the trace minerals our bodies required from food. Unfortunately, it's far more difficult today. Experts estimate that 90% of the population suffer from mineral deficiency because the levels of minerals found in foods are dependent on the amount of minerals in the soil, and modern methods of farming have stripped much of the mineral content of the soil away, even whole, fresh vegetables and fruits have fewer trace minerals in them than they did fifty to a hundred years ago. Add to that the fact that processing fresh foods destroys the mineral content in them, and that most American's rely on canned and processed foods for their nutritional needs, and you begin to understand how one of the wealthiest nations in the world can have a large population with sub-clinical levels of mineral deficiencies.

Although certain body processes are attributed to certain minerals, each mineral needs one or more other minerals to function properly. For instance, a proper calcium-phosphorus balance is necessary to the body in that an imbalance reduces the resistance to disease, increases fatigue, weakens intellectual faculties and leads to premature aging. Magnesium can only be used if calcium and phosphorus are in proper balance.

An overabundance of one mineral can result in a deficiency of another. Ojaván Products are completely natural and contain the correct natural amount of minerals to help balance your body.

### **The Following Naturally Occurring Trace Minerals and Elements Are Found in Ojaván Products:**

The amount listed next to the trace element is the amount found in an average 70kg/154lbs person.

**Chloride** (95g in an average Human Body) – Although perhaps not as well-known as some of the other minerals, Chloride is nevertheless a member of the major mineral family. Chloride is better known as the other half of Sodium Chloride or salt and its importance inside the body is invaluable. Working along with potassium and sodium, the chloride mineral is another member of the electrolyte family. This particular electrolyte is found mainly in the body fluids surrounding cells. Its major role is to work with the other electrolyte family members to control the flow of body fluids in the veins as well as throughout the body, and maintain the proper electrolyte balance.

The Chloride mineral also works to help reduce excess acid levels. The internal body environment prefers as close to a neutral state as possible. When the pH balance is upset, as is the case when too much acid enters the body, the body works quickly to attempt to remedy this situation. Chlorides act as neutralizing agents and their work helps to bring the acid and alkaline level back into balance.

**Magnesium** (19g in an average Human Body) - Magnesium is a mineral of primary importance in the body because it aids in the activation of adenonsine triphosphate (ATP), the main energy source for cell functioning. Magnesium also activates several enzyme systems and is important for the synthesis of RNA and DNA. Magnesium is necessary for normal muscle contraction and important for the synthesis of several amino acids. Magnesium is extremely necessary for your health as it is needed for more than 300 biochemical reactions in the body. Magnesium is the fourth most available mineral in the body and is essential for good sound health. Roughly 50% of total body's magnesium is stored in our bones. The remaining part of magnesium is predominantly found in the cells of body tissues and organs. Only 1% of magnesium is available in blood; however the human body always strives to keep a constant blood level of magnesium. Magnesium is needed to keep muscles and nerves functioning and normal heartbeat. It also helps support a healthy immune system, and keeps bones strong. Magnesium also helps to regulate blood sugar levels, thereby promoting normal blood pressure and supports energy metabolism and protein synthesis. Magnesium has a positive effect on treatment of disorders such as cardiovascular disease, hypertension, and diabetes.

**Sulfate** (in an average Human Body) - Magnesium sulfate, commonly known as Epsom salts. Magnesium sulfate solution has also been shown to be an effective aid in the fight against blemishes and acne when applied directly to problematic areas it can be applied to the face to remove blackheads. Magnesium sulfate paste has been used as an agent for dehydrating (drawing) boils, carbuncles, and abscesses.

**Potassium** (140g in an average Human Body) – Our bodies are made up of millions of tiny cells, such as brain cells, skin cells, liver cells, etc. These cells make up the different organs in our bodies. Potassium is extremely important to cells, and without it, we could not survive. Potassium exists primarily in intracellular fluids (the fluid inside cells). Potassium stimulates nerve impulses and muscle contractions and is important for the maintenance of osmotic pressure. Potassium regulates the body's acid-alkali balance, stimulates kidney and adrenal functioning and assists in converting glucose to glycogen. Potassium is also important for biosynthesis of protein.

Potassium, the third most abundant mineral in the human body, is the synonym for health insurer. It contains the qualities for maintaining a high level of human well-being and a cheerful life. Apart from acting as an electrolyte, this mineral is required for keeping heart, brain, kidney, muscle tissues and other important organs of human body in good condition. Potassium chloride is the main variety of this mineral amongst others. It works in association with sodium to perform a number of critical body tasks.

**Sodium** (100g in an average Human Body) – Sodium is an element that is vital to human life. Together with potassium and chlorine, it forms a very important part of blood plasma. Without sodium, our cells could not get the nutrients they need to survive. Sodium also allows our bodies to maintain the right blood chemistry and the correct amount of water in our blood. This element also allows our muscles to contract normally. Furthermore, our bodies need sodium to digest the food that we eat. Normal Functioning of our nervous system also depends on this important element. Sodium regulates the pH of intracellular fluids and with potassium, regulates the acid/alkali balance in the body. Sodium and chloride are necessary for maintaining osmosis and electrolyte balance.

**Bromine** (0.26g in an average Human Body) – Bromine is more rare than about three-quarters of the elements in the Earth's crust. It is preferentially used over chloride by one ant parasitic enzyme in the human immune system. Bromine also helps aids sleep and eliminates insomnia

**Lithium** (7mg in an average Human Body) – Helps stimulate the endocrine glands, brain function the integral component of striated muscle cells, and enhances the absorption of Cobalt & Vitamin B-12. Lithium deficiency results in reduced fertility, a depressed growth rate, reduced longevity, depression, uncontrollable emotions, and suicidal tendencies.

**Boron** (18mg in an average Human Body) - Boron is a vital and required trace mineral that is required for normal growth and health of the body. Many disease conditions like arthritis, menopausal symptoms and osteoporosis among others are naturally managed by Boron. Without small amounts of boron, bones would slowly break down and become brittle. The Human Body needs boron in very small amounts to allow calcium, phosphorus, and magnesium to function properly. This element is also necessary to allow the brain to function properly. In Fact, boron can increase mental alertness. Boron is an essential trace element that is largely overlooked. However, it is very crucial to have boron for a healthy and diseases free life.

**Carbonate** (in an average Human Body) – Carbonate works as a buffer in the blood; by adjusting the pH levels and bring the blood back to a balanced level.

**Calcium** (1kg in an average Human Body) – Calcium is an extremely important element in the human body. It is one of the most abundant elements in our bodies and accounts for 2-3 pounds of our total body weight. Calcium is necessary to build healthy bones and teeth. Calcium influences body coagulation, stimulates muscles and nerves and acts as a cofactor for vitamin D and the function of the parathyroid gland. Muscles cannot contract without calcium. Calcium is essential for the regulation of heartbeat, maintains blood pressure, helps control the electrical impulses to the brain, & Helps your blood clot. Calcium depletion can result in a number of symptoms; the most notable is osteoporosis which results in decreased bone mass and increased chances of bone breakage. Other symptoms are leg cramps, muscle spasms, & an increased risk of colon cancer. Calcium aids in maintaining bone health, dental care, prevention on colon cancer, reduces obesity, etc. We need calcium right from birth till old age.

**Fluoride** (2.6g in an average Human Body) – Fluoride is an element that the body uses to strengthen bones and teeth. Fluoride has a direct effect on the calcium and phosphate metabolism and in small amounts may reduce osteoporosis. Trace amounts of fluoride produce stronger tooth enamel. It is also valuable in helping the body strengthen the bones in our bodies. Fluoride is the most important trace element in the body that affects the bones and teeth. Fluoride, along with a large quantity of calcium, is a large part of what makes your bones strong. When your body does not receive enough Fluoride, bones start to loose calcium, and then become weak and brittle.

**Silicon** (1g in an average Human Body) – silicon is necessary for normal growth and bone formation. With calcium, silicon is a contributing factor in good skeletal integrity. Silicon is a main component of osteoblasts, the bone forming cells. Silicon may help to maintain youthful skin, hair and nails.

Silicon is also known as a beauty mineral and thus, there are many health benefits of silicon. It not only causes the strengthening of connective tissues and bones, but is also useful in taking care of nails, hair and skin. The health benefits of silicon also play a vital role in the prevention of atherosclerosis, insomnia, skin disorders and tuberculosis. Silicon is a vital trace mineral required by the body for strong and flexible joints, glowing skin and stronger bones.

**Nitrogen** (1.8kg in an average Human Body) - Nitrogen is present in all living organisms, in proteins, nucleic acids, and other molecules. It typically makes up around 4% of the dry weight of plant matter, and around 3% of the weight of the human body and makes up 78.1% of the earth's air.

**Selenium** (15mg in an average Human Body) – Despite selenium's reputation as a toxic heavy metal, this element is actually very important to good human health. Selenium is an important part of a molecule in the body that protects blood cells from certain damaging chemicals. Together with vitamin E, selenium helps our immune system produce antibodies, which is obviously an immensely important task. Selenium helps keep the pancreas and heart functioning properly. A deficiency of this vital trace element has been linked to the development of leukemia, arthritis, and other diseases. Researchers have also found that the lower the concentration of selenium in the blood stream, the higher the risk of developing many types of cancer.

**Phosphorus** (780,g in an average Human Body) - Phosphorus is an important constituent of human bones and thus, one can't imagine making a move without the adequate amount of this mineral in the body. In fact, phosphorus is considered as the second most profuse mineral in human body, second to Calcium. Apart from providing strength to bones and teeth, other health benefits of phosphorus is important in helping our body perform essential activities for different body parts like brain, kidney, heart and blood. Thus, Phosphorus is important. It is also a part of the body's storage system, and helps with maintaining healthy blood sugar levels. The regular contractions of the heart are dependent upon phosphorous, as are normal cell growth and repair.

**Iodine** (20mg in an average Human Body) - Iodine controls the functioning of thyroid glands in human body, which in turn has a significant influence on the metabolic processes in the body. The thyroid gland uses iodine to make chemicals that affect our growth, the way we develop and how we burn the energy that we get from the food we eat. The health benefits of iodine help in the optimum utilization of calories thereby preventing its storage as excess fats. Other benefits of iodine are removal of toxins from the body and assistance for the system in utilizing calcium and silicon. If we don't get enough iodine in our diets, we can expect to have a loss in energy and to gain weight.

**Chromium** (14mg in an average Human Body) – Chromium, in fact, is an element that is essential to good human health. It does many important things in the body. Most significantly, it is a vital component of a molecule that works with insulin to stabilize blood sugar levels. In other words, it helps our bodies absorb energy from the food we eat and stabilizes the levels of energy that we feel throughout the day. Our bodies need sufficient quantities of chromium to make many of the large biological molecules that help us live. This vital element can also help increase muscle mass while reducing fat mass in our bodies. It helps cells, such as heart muscle cells absorb the energy they need to work properly.

**Iron** (4.2g in an average Human Body) –This element has many functions in the body. Iron is used by the body to make tendons and ligaments. Certain chemicals in our brain are controlled by the presence or absence of iron. It is also important for maintaining a healthy immune system and for digesting certain foods we eat. Iron is necessary for cell function and blood utilization. Blood loss is the most common cause of iron deficiency. Pallor and extreme fatigue are the symptoms of iron deficiency anemia. The health benefits of Iron mainly include carrying life-giving oxygen to human blood cells. About two-thirds of the bodily iron is found in hemoglobin. Other symptoms of iron deficiency are chronic disease, cough, anemia in pregnancy, predialysis anemia, and many more.

**Manganese** (12mg in an average Human Body) – manganese is essential for glucose utilization, for lipid synthesis and for lipid metabolism. Manganese plays a role in cholesterol metabolism and pancreatic function and development. Manganese is involved in the normal skeletal growth and it activates enzyme functions. Health benefits of manganese ensure healthy bone structure, bone metabolism, helps in building essential enzymes for building bones. It acts as a coenzyme to assist metabolic progression in the human body. Apart from these, there are other health benefits of manganese actively involved in forming connective tissues, absorption of calcium, proper functioning of thyroid, sex hormones, regulating blood sugar level, and metabolism of fats and carbohydrates. Manganese is a mineral form, found in our human body in very minimal amount. Manganese is an actual component of manganese super oxide dismutase enzyme. It is a powerful antioxidant that searches out the free radicals in human body and manages to neutralize these damaging particles and prevent any potential danger they may cause. The body may contain at the most 20 mg of manganese concentrated in our kidneys, pancreas, liver and most importantly in our bones. Manganese is very important for normal functioning of the brain and nerve areas of our body.

**Rubidium** (0.68g in an average Human Body) – Rubidium has a close physiochemical relationship to potassium and may have the ability to act as a nutritional substitute for it. Although rubidium is not considered essential some evidence suggests that rubidium may have a role in free radical pathology and serve as a mineral transporter across defective cell membranes, especially in cells associated with aging.

**Cobalt** (3mg in an average Human Body) - Cobalt is another required element for good health. It Forms the core of Vitamin B-12. Without Cobalt, Vitamin B-12 could not exist. The body uses this vitamin for numerous purposes. Vitamin B-12 is necessary for the normal formulation of all cells, especially red blood cells. It also helps vitamin C perform its functions, and is necessary for the proper digestion of the food that we eat. Additionally, Vitamin B-12 prevents nerve damage by contributing to the formulation of the protective sheath that insulates nerve cells. A deficiency of Vitamin B-12 can cause our red blood cells to form improperly. This can prevent our red blood cells from carrying enough oxygen from our lungs to the different parts of our bodies, thus causing a condition called anemia.

**Copper** (72mg in an average Human Body) – Cooper is an element that is very important for good health. Cooper is critically important for dozens of body functions. The health benefits of Copper include proper growth, utilization of iron, enzymatic reactions, connective tissues, hair, eyes, ageing and energy production. Apart from these, heart rhythm, thyroid glands, arthritis, wound healing. RBC formation and cholesterol are other health benefits of copper. The health benefits of copper are crucial for healthy existence, as this mineral enables normal metabolic process in association with amino acids and vitamins. Copper cannot be produced within the body and hence needs to be sourced from external sources. Copper is the third most prevalent mineral in the body and it is mostly carried by the blood plasma protein, Ceruloplasmin. Cooper facilitates in the absorption of iron and supports vitamin C absorption. Copper is also involved in protein synthesis and is an important factor in the production of RNA. Copper is a required component of many redox enzymes, including cytochrome c oxidase.

**Antimony** (2mg in an average Human Body) - The abundance of antimony in the Earth's crust is estimated at 0.2 to 0.5 parts per million, comparable to thallium at 0.5 parts per million and silver at 0.07 ppm. Even though this element is not abundant, it is found in over 100 mineral species, and is a part of our body composition. Antimony is effective against blood flukes, kills parasites, and is a great skin conditioner.

**Arsenic** (7mg in an average Human Body) – Despite its reputation Arsenic is necessary for good health. It is necessary for proper growth, development, & reproduction. It is also necessary for the function of the nervous system. Arsenic occurs naturally in various organic forms in the environment. Mainly in soil, air, & water; in its natural state it is a part of the body.

**Molybdenum** (5mg in an average Human Body) - Molybdenum is the 54th most abundant element in the Earth's crust and the 25th most abundant element in the oceans, with an average of 10 parts per billion; it is the 42nd most abundant element in the Universe. It occurs in higher concentrations in the liver, kidneys, skin, bones, and in lower concentrations in the vertebrae. It is required for proper function of several chemicals in the body. Some of these chemicals have the very important job of allowing the body to process the iron and nitrogen in our diets. Molybdenum is also present within human tooth enamel and may help prevent its decay.

**Strontium** (0.32g in an average Human Body) - Strontium has been found to be involved in the utilization of calcium in the body. It has promoting action on calcium uptake into bone at moderate dietary strontium levels, but the rachitogenic action at higher dietary levels.

**Zinc** (2.3g in an average Human Body) – Although the average adult body only has about 2-3 grams of zinc. Zinc is a very important trace element that is essential to many biological factors. Zinc is involved in over 100 different reactions in the body. Some of these reactions help our bodies construct and maintain DNA. Zinc is required for growth, repairing tissue, immune system function and for sexual development. Zinc is considered one of the most important elements in the immune system. Zinc is a cofactor in over 90 enzymes and is required for the synthesis of insulin. Proper zinc metabolism is needed for wound healing and carbohydrate and protein metabolism. Zinc is considered an antibacterial factor in the prostatic fluid and may contribute to the prevention of chronic bacterial prostatitis and urinary tract infections.

The health benefits of Zinc include proper functioning of the immune system, digestion, control of diabetes, improves stress level, energy metabolism, acne and wounds healing. Also, pregnancy, hair care, eczema, weight loss, night blindness, cold, eye care, appetite loss and many other factors are included as health benefits of Zinc. Zinc, being an important mineral plays a vital role for the protein synthesis and helps in regulation of the cells production in the immune system of the human body. Zinc is mostly found in the strong muscles of the body and especially in high concentrations in the white and red blood cells, eye retina, skin, liver, kidneys, bones and pancreas. The semen and prostate gland in men constitutes a large amount of zinc. In a human body, 300 or more enzymes require zinc for normal functioning. The researchers believe that 3,000 proteins out of 100,000 are involved in human body consisting of Zinc.

**Nickel** (15mg in an average Human Body) - Nickel plays important roles in the biology of microorganisms in the body. Nickel helps provide optimal growth, healthy skin, strengthens the bone structure, and enhances the absorption of Zinc. Nickel deficiency causes depressed growth rate and dermatitis.

**Tungsten** (20µg in an average Human Body) – Tungsten is thought to be used by a small number of enzymes in a fashion similar to molybdenum.

**Germanium** (5mg in an average Human Body) – Germanium has many important medicinal properties. In the body, germanium attaches itself to oxygen molecules. This has the unexpected effect of making our bodies more effective at getting oxygen to the tissues in our body. The increased supply of oxygen in our bodies helps to improve our immune system. It also helps the body excrete harmful toxins. Perhaps the most exciting thing about germanium is that it can stimulate the human immune system to fight cancer cells.

**Aluminum** (60mg in an average Human Body) – Until recently, aluminum was thought to be useless to the life process. It is now thought to be involved in the action of a small number of enzymes.

**Tin** (20mg in an average Human Body) – small amounts of tin appear to be necessary for normal growth. Because tin is common in soil, foods and water, deficiencies are rare. Because of poor absorption low tissue accumulation and rapid tissue turnover, tin has a low level of toxicity.

**Lanthanum** (0.8mg in an average Human Body) – Increases cells growth and extends life.

**Barium** (22mg in an average Human Body) – Used for Gastrointestinal needs.

**Silver** (2mg in an average Human Body) – Helps reduce inflammation, eczema, and hemorrhoids Silver also helps stimulate healing, the prostate, and the immune system. Silver is a natural system disinfectant, anti-bacterial, anti-viral, and anti-fungal.

**Cadmium** (50mg in an average Human Body) - Cadmium occurs as a minor component in zinc. Cadmium performs the same function as zinc.

**Uranium** (0.1mg in an average Human Body) - Uranium is a naturally occurring element that can be found in low levels within all rock, soil, and water. Uranium is also the highest-numbered element to be found naturally in significant quantities on earth and is always found combined with other elements.

**Gallium** (0.7mg in an average Human Body) – gallium modulates the brain chemistry, reduces the rate of brain cancers and tumors.

**Vanadium** (0.11mg in an average Human Body) - Vanadium has recently been declared by some scientists to be essential for good human health. It is believed that vanadium is involved in helping the body convert some foods into energy. Vanadium enhances the adsorption of zinc, copper, and iron. It has also been suggested that diabetics may benefit from vanadium when trying to stabilize blood sugar levels. This element is also thought to help bones and teeth form properly.

**Beryllium** (36µg in an average Human Body) – Found in human soft tissue.

**Bismuth** (0.5mg in an average Human Body) – Helps reduce ulcers.

**Europium** – (less than .001% in an average Human Body) Enhances normal cell growth and extends life.

**Samarium** (50µg in an average Human Body) – Enhances normal cell growth, extends life, and help in cancer prevention. A Samarium deficiency can result in hearing loss, male pattern baldness, and poor growth.

**Cerium** (40mg in an average Human Body) – Helps repair tissue damage.

**Cesium** (6mg in an average Human Body) - Helps eliminate cancer cells by entering cancer cells and producing an alkaline condition within the cancer cell.

**Gold** (0.2mg in an average Human Body) – Gold reduces joint inflammation.

**Mercury** (6mg in an average Human Body) – Mercury is an extremely rare element in the Earth's crust, having an average crustal abundance by mass of only 0.08 parts per million (ppm). Mercury has no known biological use. However, it is widespread through the biosphere and the food chain.

**Thulium** – (less than .001% in an average Human Body) Enhances normal cell growth and extends life.

**Erbium** – (less than .001% in an average Human Body) Helps extended life.

**Ytterbium** – (less than .001% in an average Human Body) Enhances normal cell growth and extends life.

**Praseodymium** – (less than .001% in an average Human Body) Enhances normal cell growth and extends life.

**Indium** (0.4mg in an average Human Body) – Enhances the absorption of copper, manganese, chromium, and zinc. It helps prevent, ADD, allergies, Alzheimer’s cancer, diabetes, fibromyalgia, headaches, obesity, rheumatoid arthritis, etc. Also helps the pituitary gland and the products of hormones. It is also anti-aging and helps reduce the effects of PMS.

**Platinum** – (less than 1% in an average Human Body) Helps strengthen the immune system, remove toxins, heightens mental alertness and increases energy. Platinum is also very important in the growth of skin, nerves, and muscle.

The science community has not found a health benefit at this time for the trace minerals listed below. Each trace mineral below is found in our bodies and is there for a reason, we just don’t know why at this time.

Titanium, Scandium, Lead, Yttrium, Zirconium, Tellurium, Hafnium, Terbium, Gadolinium, Dysprosium, Holmium, Lutetium, Neodymium, Niobium, Tantalum, Thorium, Thallium, Rhenium, & Palladium.

**\*Trace minerals are listed in no particular order and are for informational purposes only. This information is not intended to diagnose, treat or cure disease. Products and statement have not been evaluated by the Food and Drug Administration.**

#### **Resources:**

**Mineral Information Institute;** <http://www.mii.org/periodic/LifeElement.html> ,  
<http://www.mii.org/periodic/Pb.htm>, <http://www.mii.org/periodic/Nd.htm>,  
<http://www.mii.org/periodic/Hg.htm>, & <http://www.mii.org/periodic/U.htm>

**BHIA Medical & Herbal Remedies;** <http://www.bhia.org/articles/specialty-products/mineralsinthebody.html>

**1 choice vitamins;** <http://www.bhia.org/articles/specialty-products/mineralsinthebody.html>

**Nutritional Supplements Center;**  
<http://www.nutritionalsupplementscenter.com/info/Minerals/traceminerals.html>

**Nutrition for healthy living;**  
<http://www.healthylivinganswers.com/vitamins/chloride-mineral.html>