

# Silica

*There is no life without Silica!*

In 1939, the Nobel Price winner for chemistry, Professor Adolf Butenant, proved that life cannot exist without Silica. According to his research conducted at Columbia University in 1972, silica is an essential nutrient and must be supplied continuously from food sources.

Silica plays an important role in many body functions and has a direct relationship to mineral absorption. The average human body holds approximately seven grams of silica, a quantity far exceeding the figures for other important minerals such as iron. Both iron and silica are body essential, meaning they are needed for carrying out ongoing metabolic work that is vital to life. Both elements must be continuously supplied.

Many studies that prove the favourable influence of vegetal silica on the development of animals have been undertaken. Silica is essential to the development of the skeleton and mineralization. Silica's absence results in skeletal deformities.

Hormonal disturbances in the human organism are often due to a calcium-magnesium imbalance. Several studies have shown that silica can restore this delicate balance. Silica also benefits the assimilation of phosphorous. Thus it may be considered a catalyst in the use of other elements.

*Bone Saver!*

Osteoporosis is a symptom of the aging process. As calcium in our body system leaches, our bones become brittle and weak. Taking only a calcium supplement cannot correct or stop this threatening and crippling disease because the body cannot assimilate and make use of the calcium without the presence of silica. Evidence suggests that, instead of affecting healing, supplemental mineral calcium, on the contrary, accelerates the leaching away of bone calcium and thus hastens the degenerative process of osteoporosis and similar diseases that affect the supportive and connective tissues in the human body.

For osteoporosis, silica can stop the pain and even restore the body's self repair process. Osteoporosis symptoms attack women primarily after menopause but the degenerative process starts much earlier in their younger days. More women are dying of fractures caused by osteoporosis than of cancer of the breast, cervix, and uterus combined.

In osteoporosis, thinning of the bones occurs due to insufficient production of the surrounding protein medium in which calcium salts first deposit. A lack of calcium in the bone matrix leads to enlargement of canals and spaces in the bones, giving the bones a porous, thinned appearance. The weakened bone becomes fragile and may be broken by a minor injury. The bones may even fracture from normal pressure or stress. For purposes of remineralization of damaged bones, it is recommended that a sufficient silica supplement be taken daily. Bones are made up of mainly phosphorus, magnesium and calcium but they also contain silica. Silica is responsible for the depositing of minerals into the bones, especially calcium. It speeds up the healing of fractures and also reduces scarring at the site of a fracture.

More and more research evidence shows that through a transmutation process, silica is turned into calcium when it is needed. That is why some scientists refer to silica as a precursor of calcium. Even when calcium is insufficient, the body can turn silica into calcium that the bones need.

### *Nature's Internal Cosmetic!*

Tissue degeneration accelerates due to aging when connective tissue develops an increasing inability to retain moisture when left unassisted. Silica can help slow the degenerative process of connective tissue. With silica, vitality and life, which are often lost as the years accumulate, can be naturally maintained or even restored to your skin. Connective tissue consists of collagen, elastin, mucopolysaccharides, and mucous carbohydrates which help moisture retention. Their ability to retain moisture keeps the connective tissue “bouncy” and has obvious importance in the prevention of premature aging. All these important molecules house large quantities of silica. Collagen, largely made up of silica, is the “glue” that holds us together. If our body has enough silica glucosaminoglycane, the collagen will make us look younger.

If you regularly follow a silica regimen, your skin will keep its young look. However, do not expect instant results. It is a good idea to start organic vegetal silica supplementation years before the collagen in your body has deteriorated to the point where it shows in the wrinkles on your face and body. A good silica supplementation program works far better than other products for maintaining healthier and longer lasting collagen.

### *Hair That Grows!*

Hair is nature's greatest beauty enhancer. It makes us sexually attractive and serves to protect us. Hair deserves to be pampered. Hair at 90 micrograms per gram is almost as rich in silica as are healthy bones, which contain 100 micrograms per gram. Silica is a major component of hair. Using a good silica supplement should be part of your ongoing hair care program for revitalizing hair. Silica helps to prevent baldness, stimulates healthier hair growth and assures beautiful shine, luster and strength.

### *Teeth and Gums!*

By hardening the enamel, silica prevents cavities and preserves teeth. Silica also prevents bleeding gums, gum atrophy, and recession that causes the loosening of teeth, which could ultimately lead to tooth loss. Vegetal silica effectively fights caries (ulceration and the decay of a bone or of a tooth) and inflammation.

### *Tough As Nails!*

Your nail plates are complex protein structures that grow four to five millimeters per month on average. In case of deficiency, the rate of growth slows. So your fingernails can be the first indicators of silica deficiency. Demineralization of the nails precedes by far any decalcification of bones. It is possible to start silica supplementation in time to prevent bone loss. With silica supplementation, fragile nails become normal within a short period of time. Silica will beautify the appearance of your nails and improve their hardness, making them shinier and less prone to breaking.

The restorative effects of silica will be most noticeable on your hair, skin, nails and teeth. Our skin and hair require silica essentially for the same purpose as do other tissues. As we know, the supporting collagen underneath the skin enhances elasticity and beauty. Collagen owes that quality to silica, which provides a beautiful complexion that is more than skin deep.

## *More Benefits!*

- Silica has inhibitory effects on coronary diseases.
- Organic vegetal silica supplementation helps repair and maintain vital lung tissues and protects them from pollution. By maintaining or restoring the elasticity of lung tissues, silica reduces inflammation in bronchitis. It acts as a cough decreasing agent. Silica tones the upper respiratory tract (nose, pharynx, larynx) and reduces swelling because of its positive action on the lymphatic system.
- Silica supplementation keeps menopause free of stress and helps to prevent many unwanted side-effects of menopause; paramount being the development of osteoporosis. In men, too, the nervous system and glandular network will gradually undergo changes that cause deterioration of vital body functions during menopause. This can also be alleviated by using silica.
- Silica works with other antioxidants to prevent premature aging and to preserve youthfulness.
- New researches have found that antioxidants, like organic vegetal silica, protect against harmful radiation.
- Silica can help prevent kidney stones and heal infections of the urinary tract. It is a natural diuretic which can increase excretion of urine by 30 percent, thus flushing the water-excreting system and restoring normal function to these vital organs.
- The presence of sufficient silica in the intestines will reduce inflammation of the intestinal tract. It can cause disinfection in the case of stomach and intestinal catarrh and ulcers. Silica can prevent or clear up diarrhea and its opposite, constipation.
- Vegetal Silica will help normalize hemorrhoidal tissues.
- In regulating and normalizing the bowels, silica has a pleasant side effect; it can alleviate lower back pain, which often troubles the elderly.
- Silica proves effective with female discharge, abscesses and ulcers in the genital area and cervix, as well as mastitis (especially for breast feeding mothers).
- The intake of silica acts as a supportive treatment for inflammation of the middle ear. Because of the beneficial effectiveness on the lymphatic system, silica can be used for swelling of the lymph nodes in the throat.
- Silica can stimulate the immune system.
- Silica can normalize circulation and regulate high blood pressure (hypertension).
- Silica can decrease vertigo, headache, tinnitus (buzzing of the ears) and insomnia.
- Silica can help diabetes by promoting synthesis of elastase inhibitor by the pancreas.
- Silica can help arterial disease by strengthening the blood vessels.
- Silica can help prevent Tuberculosis.
- By improving the elasticity of the joints, silica helps rheumatism.
- Silica can help avoiding or alleviating Alzheimer's disease by preventing the body from absorbing aluminum and may flush out aluminum from the tissues.
- Silica can stimulate cell metabolism and division.
- Silica delays the aging process of the tissues; in younger people, the tissues typically contain more silica than in older people.
- Silica increases mobility and reduces pain in osteoarthritis and sclerotic conditions.
- Silica beautifies hair with shine, elasticity and strength.
- Silica prevents wrinkles.

### *Dosage:*

According to Professor Loeper, daily silica needs of humans are 20-30mg. Supplemental use of organic vegetal silica extracted from springtime horsetail ensures that an adequate amount of silica is continuously available to the body. With adequate intake, enough assimilation of the vital nutrient can be assured even when the body's ability to assimilate is impaired. Any excess silica not needed by the body is automatically eliminated through the blood stream, kidneys and intestines.

All of us need silica, regardless of our age. It is as important to give the body dietary sources of silica early in life as it is during the aging process when silica levels in tissue usually drop off steeply. Silica has a direct influence on absorption of all minerals that the body requires to maintain health. Silica adds to the quality of life, and improves stamina and appearance.

For remineralization purposes, such as bone mending, four to eight times that amount should be ingested until silica therapy has proven successful. This is best done under the supervision of your physician.

Scientists believe that silica exists in the body in three forms: (a) a soluble form, accounting for ten percent of the body's silica; (b) a form combined with lipids and accounting for thirty percent; and (c) a form combined with proteins accounting for the remaining sixty percent. This explains that our daily requirement of silica is quite high. In order for us to now lay down the foundations for shaping and building our body five, ten or even thirty years down the road, we should turn to foods and supplements that furnish us with our daily requirement of 20-30 mg of silica.

### *The Good, the Bad and the Right Silica*

Finding the right Silica may be confusing at times. Make sure that the vegetal silica you use is 100 percent pure aqueous extract. Be sure also that it is from spring horsetail (*Equisetum arvense*). Only vegetal silica prepared by Professor Kervran's method provides pure and safe extract.

*Silica, The Forgotten Nutrient*, Klaus Kaufmann, Alive Books, 1993

*Silica, A Vital Element for Good Health*, Dr. Johannes Schneider

*Silica, The Universal Mineral*, Gerhard Leibold, N.D.