

THE SILICA CONNECTION

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"Next to oxygen, silica is the most abundant mineral on our planet, making up more than 25% of the earth's crust! After all the evidence of what DE does for animals, wouldn't it do the same for humans? The evidence we are beginning to see says yes!"

On land, the basic food for all animals is grass. Those animals that do not eat grass, eat the animals that do eat grass. The silica content of all living organisms is linked with the diet. Silica is highest for the pure plant eaters and lowest for the pure meat eaters.

Medical researchers suspect silica may be nutritionally important but its function in the human body is poorly understood owing to very little research. For most people, awareness of silica is limited to computer chips and breast implants, despite the fact it is found widely in sand, quartz and clay, and even in gemstones of amethyst, jasper and opal.

This noncrystalline silica (food-grade) is not a hazard as the human body apparently can dissolve it. "Silicosis refers to lung contamination and irritation by crystalline or free silica (SiO₂). Crystalline describes the orientation of the SiO₂ molecules which occur in a fixed pattern in contrast to the non periodic, random molecular arrangement defined as amorphous.

Fossil Shell Flour Diatomaceous Earth consists of amorphous silica. Silica transmits electricity, light and heat. Diatomaceous earth (DE), a white, cornstarch-like powder of finely ground fossilized algae consists of about 79% silica and at least 14 other valuable minerals.

Silica is necessary for the formation of collagen, for bones and connective tissue, for healthy nails, skin and hair, and for calcium absorption.

"Silica is essential to animal health. Absence of silica results in bone and collagen abnormalities. Further, **research on humans shows silica increases the thickness and strength of skin, diminishes wrinkles and gives hair and nails a healthier appearance.** All of these benefits accrue without any apparent negative side effects."

Other beneficial effects of Amorphous Silica:

- Stimulates cell metabolism and cell formation
- Inhibits the aging process in tissues
- Necessary for the structure and functioning of connective tissue
- Strengthens and stimulates the immune system
- Silica is important for the development of healthy nails and hair and regular intake can stop unnecessary hair loss
- Strengthens and stimulates the vascular system; lowers blood pressure and improves the condition called arteriosclerosis

- Increase elasticity and firmness of the blood vessels
- Silica is indispensable for the elasticity of lung tissue and, therefore, is a basic therapy for lung and respiratory disorders
- Has anti-inflammatory disinfecting, absorbing and odor binding effects
- Some of the disorders that benefit from regular silica intake include:

*Disorders of the throat, nose, ears and teeth, disorder of the digestive and secretive organs, bone injuries and problems, skin problems and injuries including itching, rashes, abscesses, boils, acne, callouses, warts, eczemas, burns, frostbite, benign skin sores, insect bites and bed sores, female illnesses and as a base therapy for cancer treatment.**

**Cancer occurs mainly in middle and older ages at a time when the human body contain less silica. Silica especially influences the degenerated white blood cells of cancer patients, activates the regeneration of normal protein and increases the immune system against cancer. Silica helps support the healing process.*

Some Human Studies: "In this study, a potential influence of food grade diatomaceous earth to lower blood cholesterol was investigated. During 12 weeks we monitored serum lipid concentrations in 19 healthy individuals with a history of moderate hypercholesterinemia. Individuals administered orally 250 mg. Diatomaceous earth three times daily during an 8 weeks observation period. Serum concentrations of cholesterol, high-density lipoprotein cholesterol, low-density lipoprotein cholesterol and triglycerides levels were measured before study entry, every second week during the period of diatomaceous earth intake and 4 weeks after stop of intake.

Diatomaceous earth intake was associated with a significant reduction of serum cholesterol at any time point, reaching a minimum on week 6. Also low-density lipoprotein cholesterol and triglyceride levels decreased. Four weeks after intake of diatomaceous earth was stopped, serum cholesterol, low-density lipoprotein cholesterol and triglycerides still remained low and also the increase of high-density lipoprotein cholesterol became significant."

Institute of Medical Chemistry and Biochemistry, University of Innsbruck, Austria.

In this study a **potential influence of diatomaceous earth to lower blood cholesterol** was investigated. During 12 weeks we monitored serum lipid concentrations in 19 healthy individuals with a history of moderate hypercholesterolemia (9 females, 10 males, age 35-67 years). Individuals administered orally 250 mg diatomaceous earth three-times daily during an 8 weeks observation period. Serum concentrations of cholesterol, high-density lipoprotein cholesterol, low-density lipoprotein cholesterol and triglycerides levels were measured before study entry, every second week during the period of diatomaceous earth intake and 4 weeks after stop of intake.

Compared to baseline (285.8 +/- 37.5 mg/dl = 7.40 +/- 0.97 mM) diatomaceous earth was associated with a significant reduction of serum cholesterol at any time point, reaching a minimum on week 6 (248.1 mg/dl = 6.43 mM, -13.2% from baseline; p<0.001). Also low-density lipoprotein cholesterol (week 4: p<0.05) and triglycerides levels decreased (week 2: p<0.05, week 4: p<0.01). Four weeks after

intake of diatomaceous earth was stopped, serum cholesterol, low-density lipoprotein cholesterol and triglycerides still remained low and also the increase of high-density lipoprotein cholesterol became significant ($p < 0.05$). Diatomaceous earth, a byproduct, is capable of reducing blood cholesterol and positively influencing lipid metabolism in humans. Placebo-controlled studies will be necessary to confirm our findings.

"Diatomaceous earth is capable of reducing blood cholesterol and positively influencing lipid metabolism in humans."

"E. coli are our friends: living in our intestines, they help digest our food and supply us with vitamin K. But there is an ugly strain of E. coli, that kills more than 200 people each year in the United States. These bacteria normally reside in the intestines of cattle; they reach humans through contaminated beef - as in the case of the outbreak that killed four people in Seattle in January 1993. (The source of infection was traced to a single fast-food chain.) The bacteria seep through the damaged lining into the bloodstream. Kidney failure occurs within four to five days. Antibiotics are ineffective: they work by rupturing the bacteria, which only accelerate the spread of the toxin.

The University of Alberta has devised a way to stop the toxin in its tracks. They have created a decoy that holds off the toxin until the body can build up antibodies to the bacteria, which takes about a week. Armstrong's decoys are made of sugar molecules. Each decoy is joined to a bit of diatomaceous earth porous sand that consists of the tiny skeletons of diatoms, which are a type of plankton. When the patient drinks the gritty fluid containing the decoys, the toxin molecules bind to the decoys and are then excreted along with the indigestible (diatomaceous) sand particles.

The decoy has already been tested on healthy volunteers with no ill effects. In clinical trials now under way in Canada, it is being used to treat children infected with toxic E. coli. (Children are particularly vulnerable to the toxin, apparently because their kidney cells carry more receptors for it than do the kidney cells of adults.)