

## Frequently asked questions

### What is silica-rich water?

Silica-rich water contains at least 48 mg/l orthosilicic acid (OSA). All ground water contains some silica. The amount of silica in ground water depends on the soil composition, and how long the water is in contact with the soil. The silica in ground water can be low even though there are high concentrations of other minerals, like calcium and magnesium. Ground water with at least 48 mg/l OSA is quite rare.

### How much water should I drink?

You want to drink 3 to 4 cups a day (a liter) of silica water. Spread your drinking throughout the day. If you do an activity where you sweat, drink some silica water before the activity as aluminum is excreted in your sweat.

You can drink more than 4 cups per day.

You need a water that has at least 48 ppm of OSA. OSA is the form of silica needed to remove aluminum from the body. OSA is orthosilicic acid.

### How long will it take to see improvements?

Children with Autism generally see improvement in a few weeks. Improvements are seen but not limited to language skills, social skills and improved attention and concentration. For adults with Alzheimer's improvement is seen in 2 to 4 months.

### How do I convert OSA to silica and silicon content?

OSA has the chemical formula  $\text{Si}(\text{OH})_4$ . OSA has a molecular weight of 96. 48 mg/l OSA corresponds to 30 mg/l as silica ( $\text{SiO}_2$ , molecular weight 60), and 14 mg/l as silicon (Si, molecular weight 28). Parts per million (ppm) is the same as milligrams/liter (mg/l).

## How do I convert OSA to silica and silicon content?

Here is information on reading the label of bottled water for the (OSA) orthosilicic acid levels.

There are 3 units of measure used to report orthosilicic acid levels on bottled water,

1. to convert silicon (Si) to OSA - multiply by 3.4
2. to convert silica  $\text{SiO}_2$  to OSA multiply by 1.6
3. orthosilicic acid or silicic acid  $\text{Si}(\text{OH})_4$  doesn't need to be converted. The units can be ppm or milligrams per liter, these are equivalent units of measure.

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## What does silica-rich water do?

Research has shown that OSA helps the body to excrete aluminum. Silica has other beneficial effects in the body, for example, helping to form strong bones, hair, and nails.

## What is the exact chemistry?

At a pH levels between 5.5 and 8.0, OSA complexes with up to 99 % of aluminum ions. Blood and part of the kidneys are in this pH range. When OSA is available, it complexes with aluminum in your kidneys, so that aluminum from your blood leaves your body in your urine. This can lower your blood aluminum levels by 85 %. Research shows that OSA does not significantly lower aluminum absorption in rats' stomachs (which are at a lower pH). If the same is true in humans, then silica-rich water won't stop aluminum in your food from getting into your body. However, the silica-rich water will help the aluminum in your blood to leave your body in your urine. Why do I need silica-rich water? Silica-rich water can help to protect your body and brain against the onslaught from aluminum. Modern man is exposed to aluminum everywhere. The most significant sources are aluminum cookware and pharmaceuticals. There are many other sources, including aluminum cans, cheap baking powder, some vaccines, large industrial facilities, anti-perspirants, foot powders based on aluminum salts, and allergy shots. There are also lots of unexpected sources of aluminum, including coffee machine water heating tubes, soya, tea, cacao, baby formula, some ground water, water treated with alum, electronic cigarettes, and even colored candies like M&Ms. If you want to lower the amount of aluminum in your body, read about the sources of aluminum, and try to reduce or eliminate these.

## **Which foods contain silica?**

The husks and hulls of grains, and the skins of vegetables contain silica. Green beans, jacket potatoes, bananas, and beer are good sources of silica. (You shouldn't cook the jacket potatoes in aluminum foil, or buy aluminum cans of beer though.)

## **Why can't I just get silica from my food?**

There are three reasons why you may not be able to get enough silica from your food. Firstly, most of the food we eat is refined. The silica-rich husks and hulls are generally removed from grains, and the silica-rich skins are often removed from vegetables. Secondly, in many areas, intensive farming has depleted the silica in the soil. Even if your diet is unrefined, your food might not contain as much silica as it did before intensive farming. Thirdly, we have so much aluminum exposure that we are unlikely to get enough silica from food.

## **Can I mix silica-rich water with a juice concentrate?**

You can mix silica-rich water with juice concentrate. The OSA in the silica-rich water is not affected. If your child doesn't like water you can add the silica water to their favorite drinks.

## **Should I cook with silica-rich water?**

It's not necessary or harmful to cook with silica-rich water, but it will be expensive! Boiling for more than a few minutes will cause the OSA to precipitate out of solution, rendering it ineffective to remove aluminum from the body.

## **Why not use a silica supplement?**

There is no silica supplement that has enough OSA to remove aluminum. Biosil has a low bioavailability of OSA relative to silica-rich water. Research has detected elevated aluminum in urine for silica-rich water. However, elevated aluminum in urine has not been detected for Biosil. Finally, Biosil contains choline, which has been implicated in prostate cancer. Table of next page.

Dennis Crouse who is a chemist has tested many silica supplements. Some don't have enough OSA and others do not have silica in the form of OSA. Here are the testing results.

<b>Table 33. Silica Supplements<sup>174,191</sup></b>				
<b>Supplement</b>	<b>Dose/Day</b>	<b>Silicon\Dose\Day</b>	<b>Bioavailable OSA</b>	<b>Cost/Day</b>
Natural Waters <sup>AK</sup>	3 - 4 cups	25.9-34.4mg	37 – 50mg	\$1.00 - \$1.50
Silicade <sup>BK</sup>	3 - 4 cups	25.9-34.4mg	37 – 50mg	\$0.04 - \$0.05 <sup>C</sup>
Choline Stab OSA <sup>DK</sup>	10 drops	10mg	5.8mg	\$0.42
Choline Stab OSA <sup>EK</sup>	2 veg caps	10mg	5.8mg	\$0.83
Colloidal Silica <sup>F</sup>	30 drops	175mg	0.51mg	\$0.60
Colloidal Silica <sup>G</sup>	10cc	163mg	1.36mg	\$0.59
Bamboo <sup>H</sup>	1cap(300mg)	99mg	0.99mg	\$0.10
Horsetail <sup>I</sup>	1cap(500mg)	16.5mg	0.37mg	\$0.04
Diatomaceous Earth <sup>H</sup>	625mg	<2.9mg	0.24mg	\$0.01

A. Fiji and Starkey – natural waters; B. Silicade – synthetic silica water; C. Excluding cost of tap water; D. Biosil Choline Stab. OSA; E. Biosil Veg Caps; F. Eidon – Ionic Minerals Silica Concentrate; G. Saguna – Silicolgel Colloidal OSA; H. Swanson; I. Swanson; J. Swanson  
K. Samples acidified to pH3.2 for 4 hours all other samples for 24 hours prior to testing for OSA

## What is the half-life for OSA in the body?

When you eat or drink OSA, the OSA exits the body over the next 8 hours. The half-life of absorbed OSA in the blood is approximately 3 hours. If you want to maximize aluminum elimination, you can therefore drink some silica-rich water every 3 to 4 hours.

## If silica-rich water is so great, why doesn't my doctor recommend it?

Doing medical research and spreading knowledge takes time and incentives. Medical traditions and training can work against innovation. Studies have shown that silica-rich water increases the excretion of aluminum. Alzheimer's patients have shown improvement when drinking silica-rich water. Despite this, silica-rich water has not been accepted as a treatment for Alzheimer's. You can wait 10 to 50 years for practice to catch up with research, or you can start drinking silica-rich water and see for yourself.

## Where can I get silica-rich water?

Some bottled water is silica-rich, that is, it contains more than 48 ppm OSA. For almost 100 brands from around the world, see the "Bottled mineral waters.pdf" in the files. These include Fiji water from Fiji and Volvic from France (they contain 146 ppm OSA and 51 ppm respectively). Alternatively, you can use tap

water to make "Silicade", with 146 ppm OSA. You can find the recipe here: <http://prevent-alzheimers-autism-stroke.blogspot.com/2017/09/silica-water-recipe-for-making-yourown.html> There is also a video here: <https://www.youtube.com/watch?v=po8IuIXjCME> Silicade was developed by Dennis N. Crouse, a PhD chemist. Silicade has been tested for stability and impurities. Silicade is cheaper and more environmentally friendly than bottled water. People who drink Silicade have written positive reports.

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