

Prepare but don't overreact

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NaturalNews.com is putting out a lot of good information about the uses of iodine and disaster planning. I'm working on an article about iodine that will be done soon. In the mean time, I wanted to share a few important points.

Iodine chemistry, iodine/thyroid issues are really complex. When it is ingested, it is rapidly absorbed in the stomach and duodenum. Iodate, widely used in salt iodization, is reduced in the gut and absorbed as iodide. Iodine doesn't stay in the blood stream for very long; under normal circumstances, it has either been absorbed into tissues or eliminated by the kidneys in less than 12 hours.

In my experience, you won't know how you will respond to iodine until you start taking it. In some, iodine is truly the "cure" to a long list of ailments. In others, it can cause a lot of problems and side effects. Iodine can correct Hashimoto's thyroiditis in some; in others, especially those who are low in selenium, it can *cause* Hashimoto's disease (an autoimmune

inflammation of the thyroid). Given the necessity of iodine for life, it is not clear why some people react to iodine in salt or seafood. Side effects can include gastrointestinal symptoms (nausea, epigastric pain, and diarrhea), significant total-body rash, and something called "iodide fever". Toxic reactions generally require large doses, but some people are very sensitive and even small doses can cause a reaction. For patients on thyroid medications, taking iodine can effect their required dosage -- they may require less...or more. In almost everyone, the TSH will go up while on iodine, as explained below.

It takes 150 micrograms per day to prevent a goiter, but iodine is also required for the rest of the body requires more. For example, 3000 mcg/day (3mg) is necessary to keep breasts healthy and it has been recommended that approximately 12,000 mcg/day (12mg/d) is needed to keep the entire body healthy. The Estimated Average Requirement (EAR) for iodine is the amount expected to meet the needs of 50% of people in a specific age group, based

on a review of the medical/scientific literature. The government also suggests something called the UL, the Upper Limit dose that most healthy people can tolerate without a side effect. [Here is a table](#) that gives an idea of the recommended amounts for you and your children. Up to 10 times these amounts, if added gradually, will not cause a problem. (www.iccid.org)

Iodine is necessary for health of many organs including the pancreas, liver, and mucosa of gastric, small, and large intestine, nasopharynx, choroid plexus and the ciliary body of the eye, the skin, and the following glands: saliva, lacrimal (tear ducts) and both lactating and non-lactating mammary glands. TSH (thyroid stimulating hormone) increases the activity of the Sodium-Iodine Symporter (NIS) that drives iodine into the thyroid and into the cells of the other organs. That is the reason that the TSH blood levels increase when patients are taking iodine -- the TSH is needed to drive iodine into the cells.

Since many, if not most, people in the US and Canada are at least mildly iodine deficient, it is necessary to gradually increase the amount of iodine in your diet or as supplementation to avoid complications of suddenly introducing large amounts into your diet. Rapid addition of iodine can cause a list of side effects including thyroid suppression, palpitations, and skin rashes. Interestingly, a sudden increase in iodine intake may be linked to the development of a goiter, which is paradoxical since most goiters are linked to iodine deficiency.

The best way to be proactive is to start adding foods into your diet that are very high in iodine. Here's a short list:

- > Kelp (sea vegetable) – ¼ ounce, 415.00 mcg
- > Yogurt (low-fat) – 1 cup, 87.22 mcg
- > Cow's milk (2%) – 1 cup, 58.56 mcg
- > Egg (whole, boiled) – 1 each, 23.76 mcg
- > Sardines and mackerel, fish with the highest iodine concentrations have approximately 250 µg of iodine/100 g
- > Strawberries – 1 cup, 12.96 mcg
- > Seaweed is particularly rich in iodine: that is, concentrations are 100-1000 times higher than in fish. Kombu, a commonly consumed seaweed, contains approximately 130,000 µg of iodine/100 g

Other foods with small amounts iodine include Miso soup, spirulina, chlorella, brassica vegetables, beans and lentils. Cod liver oil and olive oil have vitamin A and D, both important for overall health.

When taking iodine supplements, it is important to also take the mineral selenium (100-200mcg/day). Selenium interacts uniquely with iodine. It has antioxidant properties and protects the thyroid during the synthesis of thyroid hormones. It is also important for both activation and inactivation of thyroid hormone at the cellular level. Increasing iodine foods and/or adding supplements slowly is a reasonable response to the current conditions.

Potassium iodide, whose chemical formula is KI, is the recommended form of iodine to take in the event of radiation exposure because it saturates the thyroid gland. Once saturated, the thyroid – and the body – cannot absorb radioactive iodine if the tissues are saturated with healthy iodine. Another form of iodine, potassium iodate, is second option. Potassium iodate includes one molecule of oxygen that not only extends the product's shelf life, but helps to eliminate the bitter taste of potassium iodide. While KI has been the most studied, both types of the tablets can provide protection.

While iodine is sold primarily as a supplement, it deserves respect. Consuming anything other than small quantities should be done under the supervision of a physician or healthcare provider familiar with its chemical quirks. This is especially true if you are taking thyroid medication or have other thyroid problems. Taking massive dosages of iodine, such as the government-recommended 130 mg/day in the event of a radiation exposure, is definitely not necessary, unless you are right next to the reactor. Massive doses should be reserved for only extreme and confirmed exposures. In fact, a 1980 study in the New England Journal of Medicine done to determine the dose of KI in the event of a nuclear accident or fallout have shown that a single dose of 30 mg of iodine will suppress the uptake of radioactive iodine to less than 1.5% within 24 hr, Daily doses of 15 mg will maintain uptake of radioactive iodine below 2%. <http://www.nejm.org/doi/full/10.1056/NEJM198011063031903>

It is always good to be prepared. In this instance, it is really important to not overreact.