Are You at Risk for Iodine Deficiency?
By BodyEcology – October 6, 2013

Just this year, researchers at Mount Sinai Medical Center released numbers of pregnant women that may suffer from iodine deficiency – even with supplementation. [1]

If a pregnant mother is deficient in iodine, her child may show signs of slow mental development.

According to researchers, more than one out of two pregnant women is at risk for iodine deficiency. And over 20% of these women already supplement with iodine.

In the study, 182 pregnant women visited a clinic in New York City where iodine supplementation was offered. Another 183 pregnant women were seen through a practice where no iodine supplementation was offered.

Iodine levels were assessed using urine analysis. Based on the World Health Organization guidelines, almost 40% of the pregnant women who did not supplement were at risk for deficiency, whereas nearly 23% of pregnant mothers who supplemented were still at risk for deficiency.

This tells us that even with supplementation, many of us – and expecting mothers in particular—are not getting adequate levels of iodine.

What is Iodine, and Why Do I Need It?

More than one out of two of pregnant women show signs of iodine deficiency that could affect fetal brain development. Seaweed is a top source of iodine that provides a full spectrum of minerals.

Iodine is an essential trace mineral that the body cannot make. Sea vegetables and seafood are naturally rich in iodine. Since soil tends to have a negligible amount of iodine, we must eat sea vegetables and seafood in order to get the iodine we need.

The body uses iodine to make thyroid hormones T3 (triiodothyronine) and T4 (thyroxine). Without thyroid hormones, your body loses its ability to energize the immune system and metabolism – the process that uses food to create energy – plummets.

A developing baby requires iodine for healthy brain development. If a pregnant mother is deficient in iodine, her child may show signs of slow mental development, also known as cretinism.

Recently, researchers at McGill University in Montreal, Canada, reviewed 30 years of science and on average found that children who were deficient in iodine were 6.9 to 10.2 points lower on the IQ scale. [2]
Besides poor mental development, other signs of iodine deficiency in children include:

- Stunted growth
- Goiter
- Deaf-mutism

In adults, iodine deficiency can lead to an underactive thyroid, contributing to fatigue, weight gain, depression, and low body temperature – all classic signs of hypothyroidism.

**Iodine for Health: Beyond the Thyroid**

Roughly 15–20 milligrams of iodine are concentrated in thyroid tissue and in thyroid hormones.

Around 70% of the body’s total iodine is found elsewhere in the body, including:

- Breasts
- Cervix
- Eyes
- Salivary glands
- Stomach lining
- Arteries

While a deficiency in iodine will often show up in the thyroid as a goiter – or as clinical hypothyroidism – iodine deficiency can also contribute to disorders like fibrocystic breast disease, breast cancer, prostate cancer, and stomach cancer. [3, 4, 5]

This past year, researchers at the National Autonomous University of Mexico outlined how iodine acts as an antioxidant in the body. (6) They proposed that the International Council for the Control of Iodine Deficient Disorders recommend that iodine intake be increased to at least 3 milligrams a day.

Indeed, other recent studies show that iodine supplementation during cancer therapy has an antioxidant effect in the body, protecting the heart and breast tissue. [7] And in 2002, one study found that children who were deficient in iodine were more likely to be under oxidative stress – which can lead to the oxidative damage of DNA. [8]

**Iodine in Sea Vegetables**

Sea vegetables are an excellent source of iodine because these plants have the unique ability to concentrate iodine from the ocean. For example, certain types of brown seaweed contain over 30,000 times the amount of iodine in seawater! [9]
The amount of iodine in sea vegetables varies according to:

- Species
- Place of harvest
- Preparation

According to research, 1 gram of nori (what you find wrapped around sushi) contains roughly 16 micrograms of iodine. Whereas 1 gram of Japanese kombu – a kind of Laminaria – contains an estimated 2,353 micrograms of iodine. When 10 different species of Laminaria were analyzed, researchers found that on average Laminaria contains 1,542 micrograms of iodine per gram of dry seaweed. [10, 11]

When seaweed is cooked, it often loses its iodine content. For example, kombu boiled for 15 minutes will lose 99% of its iodine content. However, when kombu is used to flavor soups or stocks, much of this iodine goes into the broth.

Ocean vegetables like kombu, nori, hijiki, and wakame **have an edge over iodine supplements.**

Ocean vegetables contain a full spectrum of minerals. Some of these minerals, like selenium, are important co-factors that assist with the use of iodine in the body.

For example, researchers at Charite University Medicine in Berlin, Germany, recently suggested that selenium, in addition to iodine and iron, is essential for a healthy thyroid throughout life – and especially during thyroid autoimmune disease. [12]

If you would like to incorporate more sources of iodine into your diet (and we recommend that you do), try:

- A strip of kombu in soups, stocks, or liquid when cooking millet, quinoa, or buckwheat. Remove the kombu before serving.
- Sea vegetables like hijiki or wakame in homemade cultured vegetables.
- Dulse flakes on top of salads and grains.
- Ocean Plant Extract on those days when you don’t have a chance to fit sea veggies into your diet.

**References:**


http://bodyecology.com/articles/are-you-at-risk-for-iodine-deficiency#.UnuRLCeecgc

[Note: We recommend Modifilan, the 40:1 concentrate of the Laminaria Kombu (the inner gel that has been concentrated, low-temperature dried, powdered and then encapsulated with NO additives. Also, since the nuclear disaster at Fukashima, you don’t want to choose ANY seaweed or seaweed supplement from most areas around Japan or in major areas of the Pacific Ocean. Modifilan is harvested from Kombu in the pristine waters between southern Australia and Tasmania. See the section in this CD-R on Modifilan for more extensive information.]