

Iodine information sheet:

Iodine is a crucial nutrient that is needed for many important bodily functions. Unfortunately, we are becoming a nation of individuals who have become deficient in iodine. Without optimal intake of iodine, our major hormone glands do not function properly, we are prone to fungal and mold infections, and have higher risk of breast and prostate cancer.

The World health organization in 1990 estimated that due to iodine deficiency in the world 11.2 million people were affected by overt cretinism, the most extreme form of mental retardation and that another 43 million people were affected by some degree of intellectual impairment. ¹ The W.H.O. considers iodine deficiency as the leading global cause of preventable mental impairment.

In the U.S. prior to the 1920's, the incidence of hypothyroidism and goiter was as high as 60% in the Midwest until it was discovered that simple iodine supplementation eliminated most cases of thyroid goiter. It was then recommended that iodine be added to the salt (hence Morton's iodized salt). Also, for many decades, Potassium Iodide was added as an ingredient in bread making. These two factors gave most of the population a good amount of iodine/iodide.

In the past several decades, increasing numbers of individuals have switched to sea salt, kosher salt, Himalayan salt all of which have minimal to no iodine. And unfortunately, due to a mistaken belief that adding iodide in bread might be excessive and potentially toxic, the FDA recommended that commercial bakers remove potassium iodide from bread. The commercial bakers replaced it with potassium bromide which at the time was not known to be harmful but now is recognized as hazardous. Potassium bromide is banned in most European countries but not in the U.S.

Bromide and Fluoride toxicity:

In the Periodic table, Iodine/iodide is in the same family of elements as bromine/bromide and fluorine/fluoride. They are called "Halogens/halides". They have similar chemical properties except that bromide and fluoride are toxic. If you are deficient in iodine, the body will more easily grab either bromine or fluorine from the blood and accumulate it in the body.

These elements compete with each other. If the body is exposed to bromide, the bromide will compete with iodine for the enzyme binding sites in the body and will hence aggravate an iodine deficiency even further.

Iodine is important for the optimal function of the thyroid gland, ovaries, uterus, adrenals, testes, breast tissue, prostate, salivary and eye glands, proper brain development and fighting yeast, fungi and mold. It also is likely to have an anti-cancer role. Countries that have naturally high iodine intake in the world have 1/10 the breast cancer and prostate cancer rates.

Symptoms of iodine deficiency are feeling cold easily, insomnia, breast tenderness and breast cyst formation, ovary cysts, excess uterine bleeding, increased infertility, low energy, prostate symptoms, lower intelligence.

Lack of iodine in pregnant women can result in children with lower IQ's and frank mental retardation. Some doctors have proposed that Iodine deficiency during pregnancy may be an important factor contributing to our epidemic of Autism, Autism spectrum disorder, Attention deficit disorder.²

Another new potential danger of iodine deficiency: severe insomnia. At the Chung Institute, we have found that patients who complain of poor sleep frequently have evidence of fluoride toxicity causing damage to the pineal gland.

The pineal gland is a small bean size gland located just below the middle of the brain. Its principal job is to regulate your sleep. Since fluoride and iodine compete with each other, iodine deficiency will make the body grab fluoride more than normal and become more damaged. All Americans have been told to use fluoride for tooth decay prevention, fluoride has been a great contributor to damage to the pineal gland and to sleep in general.

Iodine supplementation:

We believe switching back to Morton's iodized salt does not give you an optimal amount of iodine. Continue using either sea salt or Himalayan salt which have numerous beneficial trace minerals and take an extra iodine supplement.

Natural sources of iodine are mainly seafood especially shellfish and seaweed. Most individuals would have to consume this daily in order to obtain optimal amounts of iodine.

If you are on iodine supplementation, you do not need to restrict your seafood intake in fear of overdosing on iodine. Excess iodine is simply excreted into the urine.

Iodine experts believe that a combination of iodine and iodide is the ideal supplement. This can be obtained from **Lugol's 2% solution:** (if you purchased Lugol's solution elsewhere, make sure it is 2% not 5% or else the dosing will be very different). There is a wide-ranging opinion as to how much iodine supplementation is optimal.³

The NIH recommends 150mcg/day and a maximum of 1,100mcg/day (1.1mg).⁴

We believe the current recommendation of 150mcg/day (0.15 mg) likely too low. That amount will prevent frank thyroid goiters but may not be an optimal level for other organs (e.g. breast, prostate, ovaries, other glands) that need iodine for optimal function.

A conservative amount is 1-1.1 mg a day which is 1 drop of Lugol's 2% solution every other day. This amount is recommended by many holistic practitioners and is still within the safe margins recommended by the NIH. If you are not followed by a practitioner familiar with the use of iodine supplementation, we recommend that you do not exceed this amount. If you are followed by one of our practitioners, please follow the directions given to you by your doctor.

Potential side effects:

Symptoms of excess or underactive thyroid hormone: iodine supplementation has been reported to potentially affect the thyroid in both directions. This is uncommon. If you notice any symptoms of palpitations, heat intolerance, insomnia you will need to pause your supplementation or stop.

Symptoms such as headaches, metallic taste, fatigue, malaise, dizziness, rashes including acne, insomnia are more likely to be due to a detox reaction. If a person is full of toxins, especially bromide, the iodine will push out the bromide from the tissues into the blood stream and cause a detox reaction from the redistribution of the released bromide. This excess release of bromide can cause a variety of symptoms mentioned above. Individuals with these symptoms will need to pause until symptoms abate and then restart under a physician's supervision.

Generally, those who are severely chronically ill and/or already suffer from severe fatigue, brain fog, chronic pain, inflammation or who have history of thyroid disease (are on thyroid medication) are more likely to suffer detox reactions.

Take the iodine in the morning. Taking it in the evening may cause insomnia.

Chung Institute patients: as with all of our therapies, we will individualize your dosage during your visit based on your needs. If you are on a thyroid medication, you may need to decrease the dosage as your thyroid health improves. We will need to check your thyroid hormone blood levels about one month after you start your iodine supplementation.

Avoid exposure to the following:

Bromide :

- Many pesticides used in agriculture are known to contain methyl bromide.
- Bromine is extensively used in the manufacture of plastic, computer boards and upholstery.
- Trace amounts of bromine are often present in most non-organic flour and baked foods because of the pesticide residue.
- Many soft drinks like Gatorade, mountain dew, fresca and other citrus flavored colas are known to contain bromide
- Bromine is often found in certain medications like inhalers, nasal sprays and certain gaseous anesthetics.
- Bromine in the form of polybromo diphenyl ethers is used as a fire retardant in carpets fabrics, mattresses and upholstery.
- Bromine is often used for treatment of swimming pools and hot tubs.

Potassium bromide was actively added to bread products for decades. Recently the FDA began requiring that food labels must state that bromide was added. Hence more and more manufacturers have begun discontinuing adding potassium bromide. Unfortunately, breads made from local bakers obtain their dough from suppliers who do not have to label the contents of their dough! For example, pizza's, pastry shops etc., may have dough that has bromide actively added.

Fluoride: Excess fluoride has been linked to poor sleep, early onset of puberty, lower intelligence, increased heart disease, arthritis and many other diseases.

- **Use non-fluoride toothpaste** such as Schmidt's Toothpaste, Hello Fluoride free toothpaste, Burt's Bee toothpaste
- Use water filters that specifically are capable of removing fluoride such as "Clearly Filtered and/or Epic (Brita and Zero are inadequate).
- Avoid Black tea which tends to be particularly high in fluoride.
- See our Fluoride handout for more information

Updated: 1/2/21

¹ WHO, UNICEF, and ICCIDD. 1994. Indicators for assessing Iodine Deficiency Disorders and their control through salt iodization. Geneva: WHO publ. WHO/NUT/94.6. 1-55 pp.

² Iodine, Why You Need it. Why You Can't Live Without It, David Brownstein, MD

³ <https://www.westonaprice.org/health-topics/modern-diseases/the-great-iodine-debate/>

⁴ [https://ods.od.nih.gov/factsheets/Iodine-](https://ods.od.nih.gov/factsheets/Iodine-HealthProfessional/#:~:text=The%20U.S.%20Food%20and%20Drug,years%20and%20older%20%5B12%5D.)

[HealthProfessional/#:~:text=The%20U.S.%20Food%20and%20Drug,years%20and%20older%20%5B12%5D.](https://ods.od.nih.gov/factsheets/Iodine-HealthProfessional/#:~:text=The%20U.S.%20Food%20and%20Drug,years%20and%20older%20%5B12%5D.)