



LugoTab™

Discussion

Iodine is an essential trace element, recognized for its traditional role in thyroid hormone synthesis. Iodine is directly incorporated into thyroxine (T4) and the biologically active form of the thyroid hormone triiodothyronine (T3). Thyroid hormones regulate metabolism and energy production throughout the body and, in turn, affect core body temperature, growth, reproduction, protein synthesis (including the formation of hair and skin), and neuromuscular function.

In addition to its well-known role in thyroid health, iodine has antioxidant activity, and it plays a critical role in intellectual development, endocrine function, and breast and reproductive system health.^[2-8]

Approximately 15-20 mg of iodine is concentrated in the thyroid and thyroid hormones, while 70% of the body's iodine is distributed in other tissues, including the mammary glands, ovaries, eyes, gastric mucosa, cervix, and salivary glands.*^[3,8,9]

Sources of Iodine

Iodine must be obtained from the diet or in supplement form. Iodine intake through seaweed consumption, such as in Japanese populations, is naturally higher than in other populations. Current estimates put Japanese daily intake of iodine from seaweed at 1-3 mg/d^[10]; but previous estimates have been much higher, such as 5.3-13.8 mg/d, and even as high as 50-80 mg/d.^[2,3] In other regions, the iodine content of food is dependent upon the presence and availability of iodine in the soil in which food is grown. In many countries, table salt and cattle feed have been fortified with iodine to help consumers meet minimum intake requirements. For instance, universal salt iodization was instituted to reduce the prevalence of goiter.^[11] It is interesting to note that over the last 25 years, the consumption of (iodized) table salt by US citizens has decreased by 65% as a result of people trying to reduce their sodium intake for health reasons.

Iodine Sufficiency

Iodine sufficiency is a controversial topic. The US RDI for iodine is 150 mcg/d for adults, which governing bodies consider to be adequate. The tolerable upper limit is set at 1 mg/d. Because of the work of Dr. David Brownstein and Dr. Guy Abraham over 10 years' time, with thousands of clients it has been well documented that the body requires a whole body

Clinical Applications

- » Supports a Healthy Synthesis of Thyroid Hormones*
- » Helps Maintain Healthy Breast Tissue*
Hakala Research Laboratory's founder, J. Charles Hakala, RPh, was a member of the original "Iodine Project" team along with Dr. Guy Abraham, Dr. Jorge Flechas, and Dr. David Brownstein. Charles' 40 years of compounding expertise is essential in the transformation of liquid Lugol's iodine solution to LugoTab. To this day, he continues to oversee the production and quality control of each small batch. Hakala Research offers the tablets in five strengths: 3.125mg, 6.25mg, 12.5mg, 25mg, and 50mg. Each tablet is non-GMO, dye free, gluten free, sugar free, soy free, dairy free, and corn free. It is sourced from Chilean salt mines and/or deep-water wells.

Sufficient dosage of iodine and potassium iodide, to achieve optimal thyroid function and whole-body health. 90% of Americans are deficient in iodine. 40% of women have a low functioning thyroid. This is all due to not taking iodine and potassium iodide in a whole-body sufficient dosage on a daily basis. Thyroid suppressive substances include toxic halides (fluoride and bromide), organochlorides, perchlorates, cabbage, Brussels sprouts, soybean isoflavones, and several other foods.

According to Dr. David Brownstein and Dr. Guy Abraham, the adult body requires anywhere from 12.5 to 50 mg per day of iodine and potassium iodide. Although there is not a consensus, many experts agree that the focus of sufficiency cannot reside solely with the thyroid, but rather it must address *whole body* sufficiency.

Doses ranging from 3 mg/d up to 50 mg/d have been used successfully in clinical practice. It is postulated that intakes that reflect those of seaweed-consuming Japanese would come closer to meeting whole body sufficiency. Furthermore, it is a little-known fact that under certain circumstances, high doses of potassium iodide (up to 130 mg) can be used to saturate the thyroid and protect it in the event of a nuclear accident.

Breast Health

Next to the thyroid gland, the breasts and ovaries concentrate the most iodine.^[3,9] The relationship between breast health and iodine levels has been reported on for decades, and it has been proposed that inadequate iodine prohibits normal breast architecture to develop.^[11] Moderately high doses of supplemental iodine have been used to promote breast comfort

after animal and human studies suggested that such a protocol would have positive effects. A randomized, double-blind, placebo-controlled, multicenter clinical trial (N = 111) investigated the effect of supraphysiologic doses of iodine on breast health in women with normal thyroid function. The 3 and 6 mg/d doses resulted in significant improvement in breast comfort.^[5]

According to Ghent et al, certain breast tissue “reacts differently to sodium iodide, protein-bound iodide, and molecular iodine. Molecular iodine is nonthyrotropic and was the most beneficial.”^[4] It is important to note that individuals with a history of autoimmune thyroid pathologies were excluded from the study.

Serving Size: 1 tablet

| Amount Per Serving | %Daily Value |
|--------------------|--------------|
|--------------------|--------------|

Hakala Research offers the tablets in five strengths: 3.125mg, 6.25mg, 12.5mg, 25mg, and 50mg. Suggested dosages based on body weight and level of deficiency.

Performing the Urine Iodine Loading Test can tell you how deficient your body is. Found here:

<https://synergisticnutrition.com/24-hour-urine-iodine-loading-test-kit.html>

Iodine Supplementation

Supplemental iodine has been found to be safe and well-tolerated in the inorganic, non-radioactive iodine/iodide form.^[12] LugoTab reflects the forms and ratios of iodine found in Lugol's solution—a liquid combination of molecular iodine and potassium iodide that has been safely and effectively employed since 1829.^[3,15,16] Hakala Research offers the tablets in five strengths: 3.125mg, 6.25mg, 12.5mg, 25mg, and 50mg.

Testing is an important aspect of supra-dose iodine supplementation and should guide the use of iodine in mg doses. Experts use spot/urine testing and load testing with subsequent (24/h) urine analysis to help determine iodine need and sufficiency.



Lugotab has had a profoundly positive effect upon myself Stephen Heuer and my friend Andrea Hare. I now know that I had been deficient in Iodine/iodide my entire life. After taking 12.5 mg of Lugotab, my mental faculties improved. I have more focus, more drive and productivity, more energy, more well-being, and a better memory. Andrea experienced the same results.

To order call 864-895-6250 or go to: synergisticnutrition.com.