Iodine Synergy™

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Science first.

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Why do we need Iodine?

Iodine deficiency can be a major contributor to the cause of congenital hypothyroidism and goiter. Congenital hypothyroidism can lead to mental retardation, lower IQ and stunted growth. Symptoms typical of iodine deficiency include cold extremities, fatigue, insomnia, dry eyes, frequent crying (iodine is needed for lachrymation and tearing), weight gain, cracking heels, and palpable tenderness in the sternum. Over the years, sodium restriction, as directed by many health professionals in an attempt to reduce hypertension and cardiovascular disease, has led to a decline in iodine intake. Many brands of salt today are not enriched with iodine. A goiter is often the result of the thyroid gland becoming enlarged in an effort to compensate for a lack of iodine. Currently, 200 million people are affected by goiters.

Good sources of dietary iodine include iodized salt, seafood, kelp, seaweed, asparagus, spinach and Swiss chard. However, the body does not store iodine for long periods of time, so regular intake through diet, and possibly supplementation, is important.

The RDA for iodine may be too low

The RDA for iodine is only 150 mcg per day. The RDA for pregnancy is 175 mcg and for lactation 200 mcg iodine. These very low RDA's were set as a minimum amount needed just to prevent hypothyroidism. Whole body needs and optimal thyroid function were not taken into account. Today as more and more doctors are testing for iodine deficiency, they are sometimes finding that a significant percentage of patients have suboptimal iodine intake and are not getting enough for optimal thyroid health.

IODINE IS USED IN SUPPORT OF:

- Hypothyroidism
- Hyperthyroidism
- Hashimoto's thyroiditis
- Fibrocystic breasts
- Goiter
- Breast cancer
- Thyroid nodules
- PCOS

Supplement Facts

Serving Size 1 capsule

Amount Per Serving		% Daily Value
Iodine (as Potassium Iodide)	10 mg	6,670%
Selenium (as Selenomethionine)	40 mcg	60%

Other Ingredients: Microcrystalline cellulose, rice flour.

Iodine for thyroid health

The thyroid is composed of spherical follicles that selectively absorb iodine (as iodide ions, I-) from the blood for production of thyroid hormones. Twenty-five percent of all the body's iodide ions are in the thyroid gland.

Inside the follicles is a colloid which is rich in a protein called thyroglobulin. The colloidal material serves as a reservoir of materials for thyroid hormone production and, to a lesser extent, a reservoir of the hormones themselves. Thyroid hormones, thyroxine (T4) and triiodothyronine (T3), stimulate vital processes in every part of the body. These thyroid hormones have a major impact on the following functions:

- Growth
- Use of energy and oxygen
- Heat production
- Fertility
- The use of vitamins, proteins, carbohydrates, fats, electrolytes, and water
- Immune regulation in the intestine

Selenium for thyroid health

Up to 40% of T4 is converted to T3 by peripheral organs such as the liver, kidney and spleen. Selenium is needed to convert T4 into T3. T3 is about ten times more active than T4. The 5'-deiodinase enzyme, involved in thyroid hormone conversion, is a selenoprotein dependent on the mineral selenium. Taking high doses of iodine long-term increases the need for selenium. Selenium levels are often low due to depletion by mercury.

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Iodine for breast and prostate health

Lack of iodine may be a contributor to fibrocystic breast disease. When researchers give rats an iodine blocking agent, sodium perchlorate, breast changes occur such as calcification and development of cysts that resemble human fibrocystic disease. Researchers have been able to produce breast cancer in animals by restricting iodine intake, as it appears iodine modulates the effect of estrogen on breast tissue. In the breast iodide stimulates production of lactoperoxidase which has functions other than attaching iodine to tyrosine. It regulates estrogen molecules outside the estrogen receptor on cells. Iodine slips into the cell by a different mechanism and induces apoptosis and cell division. Another good supplement to take, possibly in conjunction with iodine, to improve breast health is DIM•Avail. Iodine has a similar effect on prostate health as well.

Iodine concentrates in: stomach (helps make hydrochloric acid), breast, prostate and testes.

Iodide is found mainly in: thyroid, ovaries and breast tissue.

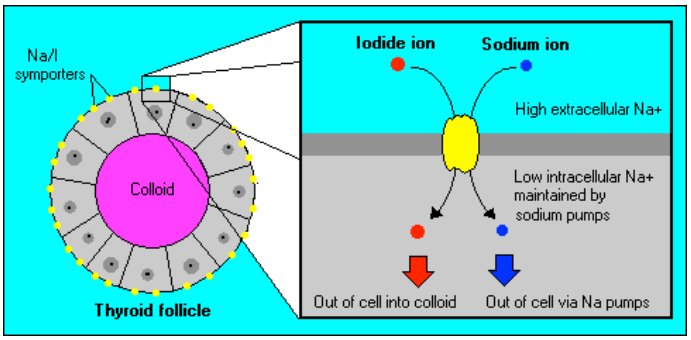
Can Iodine Synergy be taken by patients with Graves Hyperthyroidism?

This full abstract from a Japanese study may help answer this question:

"Nowadays, patients with Graves' hyperthyroidism are initially treated with methimazole or propylthiouracil. Several serious adverse reactions like agranulocytosis are caused by these drugs. Inorganic iodine decreases serum thyroid hormone concentrations in patients with Graves' hyperthyroidism without adverse reaction, but this effect usually continues only a limited time. However, a virtually complete remission or longstanding euthyroid state may be obtained with inorganic iodine therapy alone in patients with mild Graves' disease, who show small thyroid volume and low TRAb titers. Inorganic iodine therapy may become one of the treatment methods in the patients with mild Graves' hyperthyroidism."

Can hypothyroid patients take Iodine Synergy with Synthroid?

There is no contraindication known to taking iodine along with any medications, including insulin. Taking Iodine Synergy, along with DFH Thyroid Synergy, may improve treatment outcomes in patients taking thyroid medication such as Armour Thyroid or Synthroid.



How to take Iodine Synergy

New iodine loading tests are available for assessing if high dose iodine supplementation is needed and when it should be stopped. However, full methodological and efficacy data on this testing is lacking at this time. A 50 mg dose of Iodine is often used for this loading test. Serum iodine testing is also commercially available. For patients with the symptoms and/or the conditions mentioned in this tech sheet, doctors may consider recommending 1 to 3 capsules daily of Iodine Synergy until the condition and/or symptoms improve. All patients on high-dose iodine should be managed by a qualified healthcare professional and should be monitored with objective laboratory evaluations during care.

Importance of healthy sodium/iodide symporter

Vitamin C and magnesium are also integral nutrients in an iodine treatment plan as they help to improve the transport mechanism for iodine. Vitamin C at 3000 mg per day has been shown to repair a defective sodium/iodide symporter which is an integral membrane protein that resides in the basolateral membrane of thyroid epithelial cells. This protein is crucial for allowing the thyroid gland to transport and concentrate iodide from blood which is absolutely necessary for the synthesis of thyroid hormones. Vitamin D is important for proper cell receptor activity as well.

Iodine for thyroid nodules

Thyroid nodules are extremely common. Most people will develop a thyroid nodule by the time they are 50 years old. More than 95 percent of all thyroid nodules are benign. Practitioners have reported cases of benign thyroid nodules decreasing in size after iodine supplementation of 20-50mg daily. A nuclear thyroid scan can determine whether thyroid nodules are hot or cold. Cold nodules are suspicious and should be evaluated so carcinogenicity can be ruled out.

For a list of references cited in this document, click the related research link on the product landing pages at catalog.designsforhealth.com