

IODINE FROM KELP

Feature summary

Natural Factors lodine from Kelp contains naturally sourced iodine to support healthy thyroid function. Kelp is a sea vegetable and one of the most iodine-rich foods available. The ocean enriches kelp with iodine and other important nutrients, such as potassium, calcium, magnesium, and trace elements, needed for the maintenance of good health. Iodine is an essential mineral that the body relies on for proper thyroid gland function and making thyroid-stimulating hormone.

Very little iodine is present in land-grown food and the amount of iodine in food and water varies. Supplementing with Iodine from Kelp is a convenient way to meet the recommended daily requirements of iodine and restore depleted iodine levels in people with low thyroid function.

Our kelp is harvested from kelp beds in the cool waters of the North Atlantic Ocean, where the aquatic environment is pure and clean. Each tablet contains 750 mcg of iodine, to be taken once daily. It contains no GMOs, artificial colours, preservatives, or sweeteners, and is suitable for vegetarians and vegans.

lodine from Kelp is a wonderful supplement for people with low thyroid function. It supplies nutritional support to help prevent thyroid imbalances by providing targeted nutrition to the source.

How it works

Kelp is a natural source of iodine, an essential trace mineral that accumulates from ocean water (Aakre et al., 2021). The thyroid gland concentrates high levels of iodine absorbed from the bloodstream and uses it to produce thyroid hormones (Smyth, 2021). Iodine is a component of the thyroid hormones triiodothyronine (T3) and thyroxine (T4) that travel in the blood and bind to thyroid hormone receptors found on various organs. Thyroid hormones stimulate many of the body's systems to trigger cellular and physiological functions, such as regulating growth, developing the nervous system, and metabolizing food into energy (Aakre et al., 2021; Krela-Kaźmierczak et al., 2021). Iodine itself also works as an antioxidant that may lower inflammatory processes (Krela-Kaźmierczak et al., 2021).

An inadequate iodine intake or consuming too much iodine can both negatively affect thyroid function. Iodine deficiency can result in goitre and an underactive thyroid (hypothyroidism), while too much can cause an overactive thyroid (hypothyroidism). Hypothyroidism can then lead to a range of disorders called iodine-deficiency disorders (IDDs) (Aakre et al., 2021).

In addition to iodine, kelp contains a broad spectrum of essential minerals like calcium, magnesium, potassium, and sodium. It also contains vitamins, fibres such as alginate, and amino acids, which support many functions in the body (Cherry et al., 2019; Blikra et al., 2022).



Research

People have been consuming seaweeds, such as kelp, for centuries for their nutritional and medicinal properties (Peñalver et al., 2020). Kelp is a type of brown seaweed particularly efficient at taking up and concentrating iodine from seawater, making it a rich source of this essential mineral (Blikra et al., 2022; Smyth, 2021). Iodine is found in very few land-based foods, but it is present at high levels in kelp (Aakre et al., 2020). Kelp is also considered a highly bioavailable source of iodine, and only a small amount can fulfill the body's needs (Blikra et al., 2022).

Healthy thyroid function relies on an adequate daily intake of iodine because this key element is used for the synthesis of thyroid hormone (Aakre et al., 2020). When iodine intake is low, hypothyroidism can develop, leading to impaired growth and development and immune function disorders (Blikra et al., 2022; Mathiaparanam et al., 2022). Recent studies show that iodine status is declining in industrialized countries (Hatch-McChesney & Lieberman, 2022). A national health survey determined that 12% of Canadian adults had moderate-to-severe iodine deficiency (Mathiaparanam et al., 2022). While taking iodine supplements and eating dairy products were associated with protection against iodine deficiency, alcohol consumption and smoking were found to increase the risk for deficiency (Mathiaparanam et al., 2022).

Despite government efforts to increase iodine intake in vulnerable populations through iodized salt, some people, such as vegans, vegetarians, pescatarians, and women of childbearing age, often do not achieve their recommended intake (Smyth, 2021; Mathiaparanam et al., 2022). In a European study, half of the vegetarians and vegans tested did not consume the recommended intake of iodine (Groufh-Jacobsen et al., 2020). Eating a reduced-sodium diet, recommended for maintaining heart health, is also suspected to be a contributing factor to an insufficient iodine intake in some people (Mathiaparanam et al., 2022).

Although consuming kelp in its raw form provides a rich source of iodine, the concentration of iodine can vary widely, risking an intake above the recommended upper limit. Consuming kelp as a standardized and purified supplement provides a way to maintain an iodine intake within a carefully controlled concentration and avoid exposure to marine contaminants (Aakre et al., 2020).

In a clinical study, participants with insufficient thyroid hormone production were supplemented with powdered kelp that provided 200–400 mcg of iodine per day. After two months of supplementation, participants were found to have restored normal thyroid function, shown by a 62% reduction in the average level of thyroid-stimulating hormone and a 59% increase in free T4 levels (Takeuchi et al., 2011).

Seaweed contains a range of bioactive micronutrients as well, including certain antioxidants not found in land plants. Regular seaweed consumption in Asian countries is associated with health benefits. A double-blind, placebo-controlled study on postmenopausal women found that supplementation with kelp (containing 475 mcg of iodine per day), in addition to consuming soy protein, helped reduce the soy-associated increase in the anabolic hormone insulin-like growth factor 1 (IGF-1) by 40% (Teas et al., 2011).

A double-blind, placebo-controlled study also found that consuming a high-alginate kelp powder, standardized to provide 1030 mcg of iodine per day, improved the metabolic profiles of Japanese men (Aoe et al., 2021).

Ingredients

Each tablet contains:

Dosage

Recommended adult dose: 1 tablet daily or as directed by a health care practitioner.

Cautions

Keep out of the reach of children.

References

Aakre, I., Solli, D.D., Markhus, M.W., et al. (2021). Commercially available kelp and seaweed products – Valuable iodine source or risk of excess intake? Food Nutr Res, 65.

Aakre, I., Tveito Evensen, L., Kjellevold, M., et al. (2020). Iodine status and thyroid function in a group of seaweed consumers in Norway. *Nutrients*, *12*(11), 3483.

Aoe, S., Yamanaka, C., Ohtoshi, H., et al. (2021). Effects of daily kelp (Laminaria japonica) intake on body composition, serum lipid levels, and thyroid hormone levels in healthy Japanese adults: A randomized, double-blind study. *Mar Drugs*, 19(7), 352.

Blikra, M.J., Henjum, S., & Aakre, I. (2022). Iodine from brown algae in human nutrition, with an emphasis on bioaccessibility, bioavailability, chemistry, and effects of processing: A systematic review. Compr Rev Food Sci Food Saf, 21(2), 1517-36.

Cherry, P., O'Hara, C., Magee, P.J., et al. (2019). Risks and benefits of consuming edible seaweeds. *Nutr Rev*, 77(5), 307-29.

Groufh-Jacobsen, S., Hess, S.Y., Aakre, I., et al. (2020). Vegans, vegetarians and pescatarians are at risk of iodine deficiency in Norway. *Nutrients*, 12(11), 3555.

Hatch-McChesney, A., & Lieberman, H.R. (2022). Iodine and iodine deficiency: A comprehensive review of a re-emerging issue. *Nutrients*, *14*(17), 3474.

Krela-Kaźmierczak, I., Czarnywojtek, A., Skoracka, K., et al. (2021). Is there an ideal diet to protect against iodine deficiency? *Nutrients*, *13*(2), 513.

Mathiaparanam, S., Nori de Macedo, A., Mente, A., et al. (2022). The prevalence and risk factors associated with iodine deficiency in Canadian adults. *Nutrients*, 14(13), 2570.

Peñalver, R, Lorenzo, J.M., Ros, G., et al. (2020). Seaweeds as a functional ingredient for a healthy diet. *Mar Drugs*, 18(6), 301.

Smyth, P.P.A. (2021). Iodine, seaweed, and the thyroid. Eur Thyroid J, 10(2), 101-8.

Takeuchi, T., Kamasaki, H., Hotsubo, T., et al. (2011). Treatment of hypothyroidism due to iodine deficiency using daily powdered kelp in patients receiving long-term total enteral nutrition. *Clin Pediatr Endocrinol*, 20(3), 51-5.

Teas, J., Irhimeh, M.R., Druker, S., et al. (2011). Serum IGF-1 concentrations change with soy and seaweed supplements in healthy postmenopausal American women. *Nutr Cancer*, 63(5), 743-8.

