



Dulse Liquid

Stock #3156-6 (2 fl. oz.)

Dulse is a relatively unknown red seaweed that is, like most seaweeds, a rich source of vitamins, minerals, protein and other important nutrients. Dulse contains one of the highest concentrations of iron of any known food source, as suggested by its rust-red color. Dulse also provides vitamin A (as beta-carotene), vitamin C, B-vitamins, calcium, chromium, magnesium, manganese, phosphorus, potassium, selenium, silicon, zinc, and the carotenoids alpha-carotene, alpha-cryptoxanthin, beta-cryptoxanthin, lutein and zeaxanthin. Despite its variety of beneficial nutrients, dulse is primarily used for its exceptionally concentrated iodine content.¹⁻⁴

Iodine is a trace mineral that is essential for the development and functioning of the thyroid gland. Iodine is readily absorbed from the gastrointestinal tract and is carried via the bloodstream to the thyroid gland, where it is oxidized and converted to thyroxine (T4) and triiodothyronine (T3), the hormones of the thyroid gland. Iodine is also found in the gastric mucosa (the tissue lining the stomach), as well as the salivary and mammary glands. Iodine is necessary for regulating the body's production of energy, stimulating metabolism and the burning of excess fat, and promoting

healthy physical and mental growth and development. Healthy functioning of the thyroid gland also influences circulatory activity; the functioning of the nervous system and muscles; the condition of the hair, nails, skin and teeth; the conversion of beta-carotene to vitamin A; the absorption of carbohydrates from the intestines; and, the synthesis of protein and cholesterol.⁴⁻⁹

Iodine deficiency leads to hypothyroidism (an abnormally low rate of secretion of thyroid hormones, including thyroxine) and/or the development of an enlarged thyroid gland or goiter—a condition in which the thyroid gland becomes greatly enlarged in order to compensate for insufficient thyroid hormone production. Iodine deficiency can also lead to dry hair, sluggish metabolism, obesity, slowed mental reactions, nervousness, restlessness, irritability, tremor, heart palpitation, rapid pulse and hardening of the arteries—this condition can occur in response to a disturbance in normal fat metabolism, which allows cholesterol to collect in the arteries instead of being used or expelled.^{4,7,9}

In addition, iodine deficiency can result in cretinism, a congenital (present at birth) disease characterized by physical and mental retardation in children born to mothers who have had insufficient iodine intake during adolescence and pregnancy. In fact, iodine deficiency is the world's leading cause of intellectual impairment. Although cretinism, hearing loss, goiter and neurological damage are typically associated with severe iodine deficiency, mild to moderate intellectual impairment actually exceeds these more severe cases in total number of occurrences. Iodine deficiency disrupts production of T4 and T3—hormones that are essential for pre- and post-natal brain development—as these hormones require iodine for their synthesis. Iodine deficiency has the greatest impact on cognitive and neurological function during gestation and early infancy and can lead to irreversible intellectual deficits. Unfortunately, recent data suggest that there has been a sharp decline in the U.S. in iodine intake during the last 20 years, particularly in women of reproductive age. Results from a nationwide study indicate that an increasing proportion of women of child-bearing age, as well as pregnant women, demonstrate iodine levels in the deficiency range—the percentage of women of child-bearing age (15–44 years) in the iodine deficiency range increased 3.8 times during the last 20 years, while the percentage of iodine-deficient pregnant women increased 6.9 times.^{4,7,10,11}

Furthermore, hypothyroidism and/or iodine deficiency have also been associated with a higher incidence of breast cancer. Recent reports have confirmed a direct association between thyroid enlargement, as determined by ultrasound, and breast cancer. Although the exact mechanism for this association is not fully understood, researchers theorize that the presence of thyroid abnormalities may influence the progression of breast cancer. In fact, animal and human research suggests that iodine uptake into cancerous breast tissue may suppress tumor growth. Interestingly, Japanese women, who exhibit the lowest rates of breast cancer-related deaths, consume iodine from seafood and seaweed in amounts that are 16 to 40 times greater than the U.S. recommended maximum intake of 250mcg per day.^{4,6,12-15}

NSP's Dulse Liquid is an alcohol-free extract of dulse. Each serving (1ml) provides 225mcg of natural iodine in a glycerin base.

References:

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