

Thyroid Daily

Clinical Applications

- Thyroid Daily are necessary to improve all thyroid symptoms and conditions
- Engineered to be safe for all adults with thyroid disease
- One pill, once daily format reduces daily pill count

Comprehensive Micronutrients

Thyroid Daily is the first complete micronutrient support supplement made for the specific needs of those with thyroid disease. It contains 19 Thyroid Daily essential nutrients, all of which are available in various dosages and different chemical forms. The form and dosage of each nutrient were carefully chosen to be safe and helpful for people with thyroid disease. Specific micronutrient requirements with thyroid disease:

thyrc

SPECIFIC FORMULATIONS

Thyroid Daily

DIETARY SUPPLEMENT 30 CAPSULES

- Iodine: Those with thyroid disease benefit by avoiding all extraneous sources of iodine.
- Folic acid: People with thyroid disease often have MTHF-R gene variations making it harder for them to metabolize folic acid into folate safely.
- B6: Synthetic B6 in the form of pyridoxine hydrochloride can raise the risk of neurologic side effects.
- Megadose B-Vitamins: nausea, bloating, and anxiety are common side effects from B vitamins far above the Recommended Dietary Intake. Thyroid Daily contains doses within RDI ranges for all b-vitamins.
- Manganese: In excess of 2 mg per day, manganese may slow thyroid function.
- Activated b-vitamins: (B12, folate, riboflavin, B6)



The foundational nutrients present in Thyroid Daily are the first step for all adults with thyroid disease.

- Hypothyroidism
- Nodules
- Hashimoto's Thyroiditis
- Graves' disease
- Past thyroidectomy
- Goiter
- Subclinical Hypothyroidism
- Current or past thyroid cancer

All products made by Thyroid Specific Formulations are compatible with each other and with all products from Dr. C and Integrative Health. They are formulated to prevent any combinations of products from being less effective due to conflicting or redundant ingredients.

Thyroid Daily Directions

One capsule once daily with food or as recommended by your health care professional. Best taken one hour or more after thyroid medication.

Does Not Contain

Thyroid Daily does not contain lodine, gluten, corn, yeast, soy, GMO's, dairy products, artificial colors, artificial flavors, or preservatives.

Supplement racts		
Amount Per Serving		%DV
Vitamin A (as Retinyl Palmitate and Beta Carotene)	900 mcg	100%
Vitamin C (Ascorbic Acid)	90 mg	100%
Vitamin D (as Cholecalciferol)	25 mcg	125%
Vitamin E (as D-Alpha Tocopheryl Succinate)	15 mg	100%
Thiamin (as Thiamine HCI)	1.2 mg	100%
Riboflavin	1.3 mg	100%
Niacin (as Niacinamide)	16 mg	100%
Vitamin B6 (as Pyridoxal-5-Phosphate)	1.7 mg	100%
Folate (as L -5- Methyltetrahydrofolate Calcium)	400 mcg DFE	100%
Vitamin B12 (as Methylcobalamin)	10 mcg	417%
Biotin	30 mcg	100%
Pantothenic Acid (as Calcium-D-Pantothenate)	5 mg	100%
Zinc (as Zinc Amino Acid Chelate)	11 mg	100%
Selenium (as Selenium Citrate)	55 mcg	100%
Copper (as Copper Amino Acid Chelate)	0.9 mg	100%
Chromium (as Chromium Picolinate)	35 mcg	100%
Molybdenum (as Molybdenum Aspartate)	45 mcg	100%
Vitamin K (as Menaquinone-7)	90 mcg	+

Supplament Eacto

+ Daily Value not established.

++ Daily Values based on a 2,000 calorie diet.

Other Ingredients: Gelatin (Capsule), Rice Flour, Dicalcium Phosphate, Magnesium Stearate

Dosage Considerations

The dosage of nutrients is based on several considerations. These include:

- Modifications to nutritional requirements due to thyroid disease
- Current recommended dietary intake levels (RDI)
- Upper tolerable limits for nutrients
- Absorption variability
- Typical dietary intake

Iron-free

Thyroid Daily is an iron-free preparation for two reasons. The first is that iron can impair the effectiveness of other nutrients when combined with them in a single capsule. This issue is also valid for vitamin C, beta carotene, zinc, selenium, and others. The second reason is that many do not need supplemental iron and are better off avoiding it.

Specific Micronutrients and **Thyroid Disease**

Vitamin A

Why it is essential to thyroid function

Vitamin A is known to be essential for the regulation of genes that control how the body responds to TSH. A large subset of those with thyroid disease may be unable to convert dietary carotenoids into active forms of vitamin A such as retinoic acid.

Evidence of benefit from supplementation

In a recent study, overweight adult women with suboptimal thyroid function received vitamin A supplements or a placebo.

Over four months, those receiving vitamin A supplements had significant improvements in thyroid function. Their TSH scores lowered by roughly 1 full point and their T3 levels elevated by 1 full point.¹





Ideal type and amount in supplementation

The best form of vitamin A is a combination of beta carotene and natural Vitamin A Palmitate. The most useful amount for adults with thyroid disease is 2000 IU of Vitamin A Palmitate with 1667 IU of Beta Carotene. This combination represents 100% of the Recommended Dietary Value for adult women. Because vitamin A is fat-soluble, higher doses should be avoided.

Vitamin C

Why it is essential to thyroid function

Vitamin C is vital to prevent damage to the thyroid cells from autoimmune disease. It also helps selenium in its role to regulate iodine and thyroid hormones.²

Evidence of benefit from supplementation

Many who take thyroid medications do not get consistent absorption of the active ingredients. This problem leads to unresolved symptoms like fatigue and weight gain. It can also cause blood levels to be erratic.

In a recent study, 31 patients were selected who were on treatment for hypothyroidism but were unable to achieve stable blood levels. After receiving low-dose vitamin C supplementation, TSH levels improved by 69.2%, and serum T3 and T4 significantly improved. The researchers concluded that:

"In patients with hypothyroidism and gastrointestinal pathology, vitamin C improves the abnormalities in serum free T4, T3, and TSH concentrations. This approach is helpful in the management of these patients."³

Ideal type and amount in supplementation

Vitamin C is safe across a wide range of dosages. However, higher doses of any individual antioxidant can weaken the body's antioxidants like glutathione and NRF2.

The best-studied form of vitamin C with thyroid disease is ascorbic acid. The ideal daily amount of Vitamin C for adults with thyroid disease is 75 mg.

Vitamin D

Why it is essential to thyroid function

Vitamin D deficiencies are common. Those who have them have higher risks of developing:

- Hashimoto's Thyroiditis
- Graves Disease
- Thyroid Cancer ⁴



Evidence of benefit from supplementation

Vitamin D supplementation may lower blood levels of thyroid antibodies, particularly of anti-thyroid peroxidase (TPO).⁵ They have also been shown to improve TSH levels by an average of 0.4 points.⁶

Ideal type and amount in supplementation

Ideal blood levels for those with thyroid disease or general autoimmunity are 30-50 ng/mL.⁷ The best starting dose of Vitamin D for adults with thyroid disease is 1000 IU Daily. Some may need additional Vitamin D to reach the goal blood levels. This increased need is more likely for those with darker skin, higher BMI, less time outdoors, and who live further from the equator.

Vitamin E

Why it is essential to thyroid function

Thyroid follicles convert iodide into iodine. Iodine is necessary to create thyroid hormones but it can cause free radical damage to thyroid cells. Vitamin E works in conjunction with selenium to protect the thyroid cells against damage.⁸

Evidence of benefit from supplementation

Memory loss from thyroid disease appears to relate to free radical stress within the brain. Vitamin E is a fat-soluble antioxidant that can lower free radical stress. In animal studies, Vitamin E supplementation has been shown to improve cognitive function in a state of hypothyroidism.⁹

Ideal type and amount in supplementation

The best version of Vitamin E in supplemental form is Isomers that include d-alpha-tocopherol. An ideal dose for adults with thyroid disease is 15 IU.

Vitamin K

Why it is essential to thyroid function

Vitamin K is essential for healthy blood coagulation and bone metabolism. Abnormal thyroid hormone levels can increase the amounts of vitamin K needed for normal blood clotting.¹⁰

Evidence of benefit from supplementation

People with thyroid disease have a greater risk of peripheral vascular disease. Examples include strokes, aneurysms, and blood clots. Vitamin K supplementation has been shown to lower vascular stiffness.¹¹

People with abnormal thyroid hormone levels have a higher risk of bone thinning and hip fractures. More extensive studies would be helpful, but dietary and supplemental Vitamin K appears to help lower the risk of bone loss and improve bone repair.¹²

Ideal type and amount in supplementation

Vitamin K comes in a wide range of subtypes. Studies show benefits to both dietary and supplemental Vitamin K. The ideal type of Vitamin K for people with thyroid disease is Vitamin K2 / Menatetrenone 7. The recommended dosage is 90 mcg.

Vitamin B1 - Thiamine

Why it is essential to thyroid function

Thiamine is a B Vitamin that enables your body to produce energy from dietary carbohydrates. It has been speculated that thiamine may play a role in fatigue secondary to thyroid disease. We only store thiamine in small quantities and thus need to ingest it regularly.¹³

Evidence of benefit from supplementation

In a recent study, Thiamine resolved fatigue secondary to Hashimoto's thyroiditis. The results showed up quickly — in a matter of hours or days. The initial findings are encouraging, and a larger follow-up study with a placebo group would be helpful.¹⁴

Ideal type and amount in supplementation

Megadose thiamine may interfere with the cofactors needed for optimal mitochondrial function.

The version of thiamine supplementation that is best documented for reversing thiamine deficiencies is thiamine hydrochloride (HCL). The ideal daily dose for people with thyroid disease is 1.1 mg.





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Vitamin B2 - Riboflavin

Why it is essential to thyroid function

Studies have shown that symptoms of Riboflavin deficiency closely mimic those of hypothyroidism.¹⁵ It has also been shown that abnormal thyroid levels can impair riboflavin absorption.¹⁶

Ideal type and amount in supplementation

The preferred type of Riboflavin in supplementation is Riboflavin-5-Phosphate, the activated form of Riboflavin. Thyroid hormones are essential for the activation of Riboflavin, and those with thyroid disease may not convert it. ¹⁷ The best amount of Riboflavin for adults with thyroid disease is 1.1 mg.

Vitamin B3 - Niacin

Why it is essential to thyroid function

Like other B Vitamins, niacin is essential to produce energy from the breakdown of carbohydrates and fats. Those with thyroid disease can have difficulty generating energy from stored fat.

Evidence of benefit from supplementation

Niacin supplementation has been shown to help people with thyroid disease by lowering the amount of protein thyroid-binding globulin in circulation. When this protein is reduced, thyroid hormones become more available for use by the cells.¹⁸

Ideal type and amount in supplementation

Delayed-release, slow-release, or time-released niacin supplements should be avoided since they may slow thyroid function.¹⁹ High dose niacin can cause symptoms akin to abnormal thyroid levels such as skin irritation, flushing, and heart palpitations.²⁰ The best dose of niacin for adults with thyroid disease is 13 mg.

Vitamin B4 - Folate

Why it is essential to thyroid function

Those with genetic variations of the MTHFR genes cannot safely utilize folic acid, the synthetic form of folate. MTHFR gene variations are nearly universal in those with significant thyroid disease.²¹ Synthetic folic acid may suppress the production of T4 and T3.²² Synthetic folic acid may also be a risk factor for the development of colorectal cancer.²³

Evidence of benefit from supplementation

Thyroid hormones regulate a group of chemical reactions called methylation. These reactions are important for energy levels, mood, weight loss, and detoxification. Folate supplementation can improve methylation in those taking thyroid medication.²⁴





Ideal type and amount in supplementation

Natural folate is preferred over synthetic folic acid. Quatrefolic is the version of folate that requires no conversion to be used as 5-methyl folate.

Even those with multiple gene variations can utilize it. The best dosage for adults with thyroid disease is 400 mcg.

Vitamin B5 - Pantothenic Acid

Why it is essential to thyroid function

Thyroid hormones must cross cell membranes before they can help energy production. The daily rhythm of the hormone cortisol regulates the cells' absorption of thyroid hormones.

A lack of pantothenic acid compromises normal adrenal cortisol secretion and, therefore, the effects of thyroid hormones. A lack of pantothenic acid also raises the total body burden of inflammation which can worsen autoimmune diseases.²⁵

Ideal type and amount in supplementation

Dietary sources and common supplements supply B5 in the form of pantothenic acid. Pantothenic acid is a biologically active form that does not require further conversion or methylation. The ideal amount of P5P for adults with thyroid disease is 5 mg.

Vitamin B6 - Pyridoxal 5 Phosphate

Why it is essential to thyroid function

Studies have shown that those with thyroid disease are prone to be low in many essential nutrients including Vitamin B-6.²⁶

Thyroid hormones undergo numerous steps of conversion after they are produced. The enzyme thyroid hormone transaminase is necessary for conversion, and it depends on pyridoxal-5-phosphate.²⁷

Evidence of benefit from supplementation

Iron deficiency anemias are common with thyroid disease yet many people fail to improve from iron supplementation. Additional supplementation with B6 may help improve anemias that do not respond well to oral iron therapy.²⁸

Ideal type and amount in supplementation

Typical supplements supply B6 in the form of pyridoxine. The liver then converts pyridoxine to pyridoxal-5-phosphate (P5P.

When people have higher levels of inflammation, they are often low in P5P despite having abundant B6.²⁹ For this Reason, P5P is the preferred form of B6 for those with chronic thyroid disease.

P5P is chosen because pyridoxine HCL, the more common and synthetic form of B6, can cause neurologic symptoms like anxiety or burning hands and feet.

The ideal amount of P5P for adults with thyroid disease is 1.5 mg.

Vitamin B7 - Biotin

Why it is essential to thyroid function

Hair loss is one of the most troubling symptoms of thyroid disease. Many find that it does not improve with thyroid medication. Up to 38% of women with hair loss may be low in biotin.³⁰

Evidence of benefit from supplementation

Biotin supplementation consistently reverses biotin deficiency and related symptoms. Biotin is well absorbed orally and safe.

Ideal type and amount in supplementation

It is necessary to stop taking any vitamins that contain biotin within 3 days prior of having thyroid blood tests drawn.³¹



thyroid SPECIFIC FORMULATIONS

The ideal daily dose for adults with thyroid disease is 30 mcg per day, or 100% of the recommended daily value. Higher doses do not give additional benefits, but they may skew blood tests even when avoided prior to testing.³²

Vitamin B12 - Methylcobalamin

Why it is essential to thyroid function

As many as 40% of people with thyroid disease are deficient in B12. Symptoms of low B12 in those with thyroid disease include weakness, impaired memory, and depression.³³

Evidence of benefit from supplementation

When B12 was given to those with low B12 and deficiency symptoms, the majority saw their symptoms improve in several months. Some saw similar symptoms improve even though B12 levels were not lacking in it.³⁴

Ideal type and amount in supplementation

The most current version of bioavailable B12 is methylcobalamin. New research has shown that now oral B12 can be just as effective as injectable B12.³⁵ Due to common issues with absorption, the best amount of methylcobalamin for adults with thyroid disease is 10 mcg daily.

Chromium

Why it is essential to thyroid function

Those with autoimmune thyroid disease are often low in a large number of nutrients including chromium.³⁶ Chromium has been shown to be essential for blood sugar regulation.³⁷ Many with thyroid disease have blood sugar abnormalities, including diabetes, pre-diabetes, or hypoglycemia.

Evidence of benefit from supplementation

Chromium supplementation can improve type 2 diabetes and the complications of metabolic syndrome.³⁸

Ideal type and amount in supplementation

Several types of chromium are safe and effective. One of the best-documented forms is Chromium Picolinate. The ideal amount for adults with thyroid disease is 25 mcg or 100%.

Соррег

Why it is essential to thyroid function

Copper is a known cofactor in the enzyme superoxide dismutase which is essential for thyroid function. In a study of over 1300 Americans, serum copper levels related to fT3 and fT4 levels.³⁹

Evidence of benefit from supplementation

In human subjects, small increases in serum copper can correlate with improvements to TSH levels.⁴⁰ Serum levels of copper have also been shown to relate do healthier levels of blood T4 in adults.⁴¹

Ideal type and amount in supplementation

The best-absorbed forms of copper are the mineral chelates such as Copper Amino Acid Chelate. The ideal dose of copper for adults with thyroid disease is 0.9 mg.





Molybdenum

Why it is essential to thyroid function

In the large National Health and Nutrition Examination Survey of American adults, the risk for thyroid disease was correlated with lower levels of molybdenum.⁴² Other work has shown that molybdenum status has significant associations with fT4, fT3, and total T3 levels.⁴³

Evidence of benefit from supplementation

Molybdenum is well absorbed from supplementation. Roughly 88-93% of oral doses enter the bloodstream.⁴⁴

Ideal type and amount in supplementation

The best standardized form of molybdenum is Molybdenum Aspartate. Adults with thyroid disease are advised to take 45 mcg daily.

Selenium

Why it is essential to thyroid function

Next to iodine, selenium has more effects on thyroid function than any single nutrient. It is necessary for every stage of thyroid function including iodine absorption, iodine uptake by the thyroid, iodine activation, hormone formation, hormone release, TSH production, cell membrane receptor response, and thyroid hormone conversion.⁴⁵

Evidence of benefit from supplementation

Selenium supplementation can improve thyroid hormone levels and lower thyroid antibodies regardless of participants' selenium levels.⁴⁶

Ideal type and amount in supplementation

The preferred form of selenium is a form called selenium citrate. This form is more easily regulated by the body than selenium isolates.⁴⁷ The best daily dose for adults in a multivitamin is 55 mcg.

Zinc

Why it is essential to thyroid function

Zinc is essential for the production of thyroid hormones, their absorption and use by the cells, and conversion of T4 into T3.⁴⁸ The relationship between zinc and thyroid disease runs both ways. Low zinc can impair thyroid function and impaired thyroid function can lead to zinc deficiencie .⁴⁹

Evidence of benefit from supplementation

In a double-blinded placebo-controlled study, zinc supplementation was shown to profoundly improve thyroid function in overweight women with hypothyroidism.⁵⁰

Ideal type and amount in supplementation

The best-absorbed type of zinc is Zinc Amino Acid Chelate. The ideal dose for adults with thyroid disease is 8 mg.

Supportive Strategies for Thyroid Health

Thyroid Daily is best used as part of a comprehensive protocol aimed to improve overall health and thyroid function. Additional therapies should include:

Specific supplementation for related issues including:

- Absorbable Iron
- Antibody Support
- Hyperthyroid support
- Metabolism Boost
- Nodule Support
- Iodine regulation as per the book The Thyroid Reset Diet
- Weight loss, if indicated





Cautions

Timing

TSF Supplements must be taken at least an hour after thyroid replacement medication.

Dosage Modification

Those taking TSF supplements while on thyroid replacement medication (hypothyroidism, Hashimoto's) or thyroid suppression therapy (Graves' Disease) are advised to monitor thyroid levels closely. When thyroid antibodies reduce, some need decreases or other adjustments made to their medication.

Medication Interactions

Interactions can occur with many nutraceutical ingredients and prescription medications. If you are on prescription medication, please check with your doctor or pharmacist for specific guidance.

Allergy Warning

TSF products are contraindicated in individuals with a history of hypersensitivity to any of its ingredients.

Pregnancy Warning

If pregnant, nursing, an organ transplant recipient, or have multiple sclerosis, do not use TSF Products unless on the advice of and under the direct supervision of a health professional.

Side Effects

Vitamins and minerals at RDA doses are generally safe and well tolerated.







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