

Thyroid Health



The thyroid, a butterfly-shaped gland in the neck, plays a crucial role in the body's endocrine system, influencing metabolism, growth, development, and body temperature. The thyroid gland produces two essential hormones: thyroxine (T4) and triiodothyronine (T3). These hormones play a key role in managing your body's energy production, regulating temperature, ensuring proper heart function, aiding digestive health, and maintaining your mood.

When the thyroid doesn't produce enough hormones, a condition known as hypothyroidism, you might gain weight and feel unusually tired or sluggish. If the thyroid produces too many hormones, known as hyperthyroidism, you could experience symptoms like a rapid heartbeat and a general feeling of being overstimulated. Globally, hypothyroidism is usually caused by a diet that doesn't have enough iodine. In the United States, though, hypothyroidism is usually caused by a condition called Hashimoto's disease. Hashimoto's disease is an autoimmune disease and occurs when the immune system attacks the thyroid.

Who is at Risk?

Women are more likely to have thyroid problems, especially during hormonal changes like pregnancy, childbirth, and menopause. Risk factors include smoking, family history of thyroid disease, other autoimmune diseases, and disorders of the pituitary gland. Nutrient deficiencies, particularly iodine, selenium, zinc, and vitamin D, can affect thyroid health.

Plant-Based Diets and Thyroid Health

The relationship between plant-based diets and thyroid health has been a topic of interest in recent years. A study in "Nutrients" found that individuals following a vegan diet had a lower risk of developing hypothyroidism compared to non-vegans. This could be attributed to the high intake of anti-inflammatory and antioxidant-rich foods in

plant-based diets, which support thyroid health. However, the study also highlighted the importance of ensuring adequate intake of nutrients that are critical for thyroid function, such as iodine, selenium, and iron, which can be less readily available in plant-based diets.

The subsequent study by the same group, published in "Public Health Nutrition", examined the prevalence of hyperthyroidism according to different types of vegetarian diets. The study showed 50 percent less prevalence of hyperthyroidism in vegan diets compared to omnivorous diets. Lacto-ovo vegetarians and pescatarians also experienced some protection when compared to a diet higher in animal foods. This shows moving away from animal products and toward plant foods can be beneficial for thyroid health, and the protective effects increase as more plants are integrated into the diet.

Overall, these studies indicate that plant-based diets, when well-planned and nutritionally balanced, can be beneficial for thyroid health. However, they also highlight the importance of individual dietary planning and possibly supplementation to prevent nutrient deficiencies that could adversely affect the thyroid.

Plant-based diets typically feature a high intake of foods known to contain goitrogens, such as soy products, cruciferous vegetables like broccoli, cauliflower, cabbage, and kale, as well as some fruits and nuts. While these items are rich in nutrients and offer numerous health benefits, their goitrogenic properties might pose concerns, particularly for individuals dealing with thyroid conditions or iodine deficiencies. Nonetheless, it's crucial to recognize that for those with a healthy thyroid and sufficient iodine levels, the goitrogenic effects of these foods are usually not problematic.

There are effective strategies to lessen the impact of goitrogens. For instance, cooking foods with goitrogenic properties can significantly reduce their potential to disrupt thyroid function, which is particularly beneficial for those with thyroid issues. Ensuring an adequate intake of iodine, either through dietary choices or supplementation, is also key in offsetting potential risks. Furthermore, individuals with thyroid concerns or those adopting a plant-based diet are advised to regularly monitor their thyroid health and seek tailored guidance from healthcare professionals.

Nutrients and Thyroid Function

Several nutrients have been shown to affect the thyroid.

Iodine: Crucial for the thyroid to synthesize its hormones. Adequate iodine intake supports a healthy metabolism and a robust immune system. Adults typically require 150 micrograms of iodine daily. The requirement increases to 220 micrograms for pregnant women and 290 micrograms for those breastfeeding. However, it's important to avoid excessive iodine intake, which shouldn't exceed 1,100 micrograms daily, as both insufficient and excessive iodine can lead to hypothyroidism.

Iodine is easily accessible in many foods. For instance, 1/4 teaspoon of iodized salt provides about 75 micrograms, and 2 tablespoons of dried nori seaweed contain approximately 116 micrograms. Many grain products are also fortified with iodine. While iodine supplements are available, their effectiveness is not fully clear, and there's a risk of consuming too much iodine, potentially leading to thyroid issues or other complications.

Selenium: Plays a significant role in maintaining thyroid gland health.

Brazil nuts are an excellent source of selenium; just one or two nuts daily can meet your selenium needs. Other selenium-rich foods include brown rice, pinto beans, oatmeal, spinach, and lentils.

The recommended daily intake of selenium for adults is 55 micrograms. Some research suggests that consuming up to 200 micrograms of selenium daily may offer substantial benefits for thyroid health, although more studies are needed to confirm this.

Excessive selenium intake, over 400 micrograms, is uncommon but can lead to adverse effects like diarrhea and hair loss.

Zinc: Key component in the conversion of the thyroid hormone T4 to T3, the more active form of the hormone. This conversion is essential for the hormones to function effectively in regulating metabolism and energy levels. Zinc contributes to a healthy immune system, which is important since thyroid disorders can be linked to autoimmune conditions like Hashimoto's thyroiditis. Zinc plays a role in cell growth and repair, aiding in the maintenance of healthy thyroid tissue. While zinc is found in various foods, certain plant-based sources are particularly rich in this mineral including whole grains, nuts, seeds, and legumes.

Vitamin D: Involved in the regulation of thyroid function. It helps in the proper synthesis and release of thyroid hormones. Vitamin D deficiency has been linked to an increased risk of autoimmune thyroid diseases, such as Hashimoto's thyroiditis, where the immune system mistakenly attacks the thyroid gland.

Around 15-20 minutes of midday sun exposure several times a week can help maintain adequate vitamin D levels for most people. However, the amount of sunlight needed can vary based on factors like skin pigmentation, geographic location, and the season. Adding in a vitamin D3 supplement might be necessary.

Iron: When iron levels are low, the thyroid gland struggles to produce T3 & T4 effectively, leading to hypothyroidism. Plant-based sources of iron include lentils, pumpkin seeds, sunflower seeds, dark leafy greens, and blackstrap molasses.

Tyrosine: Key building block in the synthesis of thyroid hormones. The relationship between tyrosine and thyroid health is also significant because of tyrosine's role in the production of other important bioactive compounds in the body. For instance, tyrosine is a precursor to the neurotransmitters dopamine, norepinephrine, and epinephrine, which are essential for brain function and overall mood regulation. When the thyroid gland is not functioning properly, it can lead to an imbalance in these neurotransmitters, contributing to mood disorders and cognitive issues. Moreover, tyrosine has been found to have antioxidative properties, which can protect thyroid cells from oxidative stress, a factor that can contribute to thyroid dysfunction. Plant-based sources of tyrosine include almonds, avocados, bananas, peanuts, pumpkin seeds, sesame seeds, whole soy foods, and wild rice.

In conclusion, taking care of your thyroid is an integral part of maintaining overall health and well-being. Your thyroid plays a critical role in managing metabolism, hormone balance, weight regulation, and maintaining a stable body temperature, among other functions. To support your thyroid, it's essential to adopt a holistic approach to health. This includes incorporating a diverse array of colorful, whole, plant-based foods into your diet, which can provide the necessary nutrients for optimal thyroid function. Equally important is reducing or eliminating processed and unhealthy foods from your diet. Regular health checkups are also crucial. An annual physical examination allows for early detection and management of any potential health issues. Early intervention is key in preventing more serious complications and safeguarding your thyroid health over the long term. By staying vigilant about your overall health and diet, you can help ensure that your thyroid, and by extension your entire body, functions at its best.

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