

## Treatment of Hashimoto's disease:

There is no real cure for Hashimoto's disease, but once your thyroid hormone levels are affected, then you can begin thyroid hormone replacement. This medication comes in many forms including:

- T4 – Thyroxin, Synthroid, Tirosint, Levothyroxine
- T3 – Liothyronine, Cytomel
- T4 & T3 – Armour Thyroid

Currently, there is also no cure for hypothyroidism, but in almost every patient it can be completely controlled so long as medication is being properly taken. In order to ensure effectiveness, it is important to take your pill first thing in the morning - an hour before eating, drinking, or taking other medication. It is also important to have your thyroid blood levels checked 8 weeks after starting medication or having a dosage change. After regulating your treatment, you can usually just do blood work every 6-12 months. If you are diagnosed with hypothyroidism caused by Hashimoto's disease, you should tell your family members because of its tendency to run in families.

**For more information on Hashimoto's Thyroiditis and other thyroid issues, please see our websites at [www.wilmingtonendo.com](http://www.wilmingtonendo.com) & [www.3DTHYROID.com](http://www.3DTHYROID.com).**

## Risk factors for Hashimoto's:

- Family History
- Other Autoimmune diseases, like: lupus, rheumatoid arthritis, type 1 diabetes, and celiac disease.

## Link to cancer:

In our recent study on 2,500 patients with thyroid nodules, we examined the relationship between autoimmune thyroid disease and thyroid cancer. We found that patients with autoimmune thyroid disease may be at a higher risk for thyroid cancer. Specifically, elevated antithyroglobulin antibody level was an independent risk factor for thyroid malignancy. It is very important to contact your doctor if you are having any symptoms related to Hashimoto's disease.

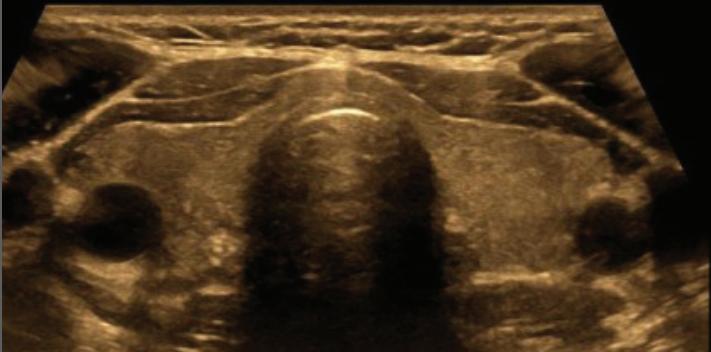
# HASHIMOTO'S THYROIDITIS INFORMATION



## Your Guide to Hashimoto's Thyroiditis

**In case of pregnancy, it is very important to have your thyroid levels checked right away. Thyroid medication may be required during pregnancy. Your thyroid medication dose may be increased if you are already on thyroid medicine.**

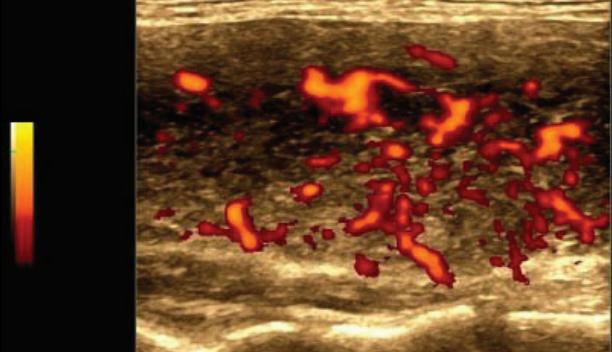
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Normal Thyroid Gland



Hashimoto's Thyroid Gland



Hashimoto's Gland with Blood Flow

## What is Hashimoto's disease?

Hashimoto's disease, also known as chronic lymphocytic thyroiditis, is an autoimmune disease in which the body's immune system mistakes thyroid gland cells and their enzymes as invaders, causing an attack on the thyroid gland. This attack on the gland can lead to inflammation and, ultimately, hypothyroidism—a disorder in which the thyroid is underactive, producing too little of the thyroid hormone thyroxine. Hashimoto's disease is the number one cause of hypothyroidism in the United States.

Hashimoto's can cause a gradual decline in thyroid function. It usually leads to hypothyroidism. Some patients, however, maintain normal thyroid function. A small group of patients with Hashimoto's may develop hyperthyroidism, or an overactive thyroid.

## What causes Hashimoto's?

Hashimoto's disease is caused by inflammation of the thyroid. While the exact causes of this are unknown, many factors are believed to play a role. These factors include:

- Genetics – A family history of Hashimoto's is the most important factor
- Hormones
- Excessive iodine
- Exposure to radiation

## What are the symptoms?

There are no symptoms unique to Hashimoto's disease itself. The disease will develop over a number of years leading to thyroid gland damage. The damage, as stated before, causes hypothyroidism—a decrease in the output of thyroid hormone. Some patients with Hashimoto's have no symptoms and may never develop hypothyroidism.

Symptoms accompanying hypothyroidism may include fatigue, weight gain, cold intolerance, constipation, cold hands and feet, hair loss, brittle nails, pain or stiffness in joints, slowed heart rate, and depression. If hypothyroidism is not treated, the symptoms can become more severe over time.

It is also possible to develop a goiter, or enlarged thyroid, with or without thyroid nodules. Enlargement of the thyroid gland may cause hoarseness, choking sensation, and difficulty breathing. In rare cases, the thyroid gland may grow inside the chest cavity.

If you are having any of the symptoms related to hypothyroidism, you should contact your doctor.

## Diagnosing Hashimoto's disease:

If you are feeling more fatigued or tired than usual, are constipated, notice weight gain, joint stiffness, or any of the other symptoms associated with hypothyroidism, your doctor may decide to test you for Hashimoto's disease. This will be determined by laboratory blood tests for TSH (thyroid stimulating hormone), free T3, free T4, thyroid peroxidase antibody, and antithyroglobulin antibody. Some patients may have a low or undetectable level of thyroid antibodies.

A thyroid ultrasound can be helpful in diagnosing Hashimoto's disease. On ultrasound the thyroid gland appears heterogeneous with uneven texture caused by inflammation. Patients with Hashimoto's disease may be at a higher risk for developing thyroid nodules.

10-15% of patients with Hashimoto's disease may have low or undetectable levels of thyroid antibody, similar to other autoimmune conditions like Rheumatoid Arthritis.