



# Hashimoto's Disease

## WHAT IS THE THYROID GLAND?

The thyroid gland, located at the front of your neck, produces two thyroid hormones, thyroxine (T4) and triiodothyronine (T3). T4 and T3 regulate how the body uses energy. This is sometimes called your metabolism.

How well the thyroid works is controlled by another gland called the pituitary, located at the base of the brain. The pituitary produces thyroid-stimulating hormone (TSH), which tells the thyroid to produce T4 and T3.

## DID YOU KNOW?

**Hashimoto's disease is the most common cause of hypothyroidism in the United States.**

## WHAT IS HASHIMOTO'S DISEASE?

Hashimoto's disease, also known as Hashimoto's thyroiditis, is an autoimmune disease. This means your immune system, which normally protects your body and helps fight disease, produces antibodies and attacks the thyroid gland. The damaged thyroid gland is less able to make thyroid hormone, and hypothyroidism can result. Hypothyroidism means that the thyroid gland does not produce enough thyroid hormone to meet the body's needs.

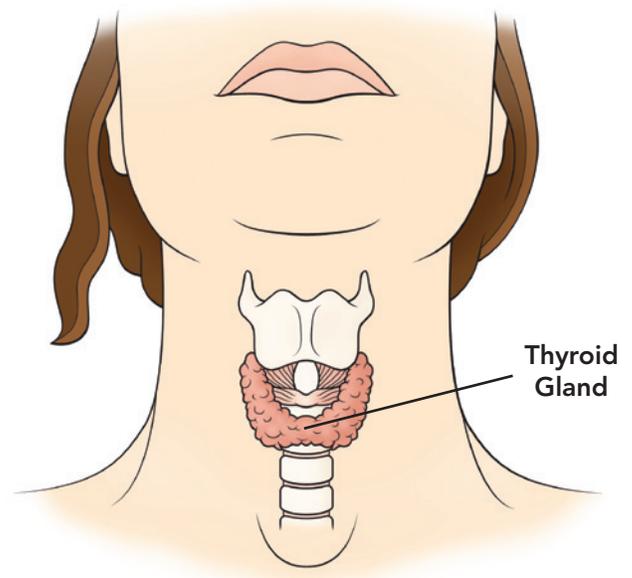
Anyone can develop Hashimoto's disease, but it occurs more often in women and those with a family history of thyroid disease. It also occurs more often as people get older. People with other autoimmune disorders are more likely to develop Hashimoto's

disease. The hypothyroidism caused by Hashimoto's disease progresses slowly over months to years. Its symptoms vary from person to person.

## WHAT ARE THE COMPLICATIONS OF HASHIMOTO'S DISEASE?

If left untreated, hypothyroidism caused by Hashimoto's disease can lead to serious complications:

- **Goiter**, which can interfere with swallowing or breathing
- **Heart problems** such as enlarged heart or heart failure
- **Mental health issues** such as depression, decreased sexual desire, slowed mental functioning



- **Myxedema coma**, a rare life-threatening condition that can result from long-term untreated hypothyroidism. Myxedema coma requires immediate emergency treatment.
- **Birth defects.** Babies born to women with untreated hypothyroidism are more likely to be stillborn or premature. They may also have lower IQ (intelligence) later in life due to underdevelopment of the brain while in the womb.

## HOW IS HASHIMOTO'S DISEASE DIAGNOSED?

Diagnosis begins with describing any symptoms to your doctor. A physical examination of the neck may reveal a slightly enlarged thyroid gland. Blood tests help confirm the diagnosis.

- **TSH test.** A high TSH level means your pituitary is trying to get the thyroid to make more T4 because there is not enough in your system (hypothyroidism).
- **T4 test.** A low level of T4 also suggests hypothyroidism.
- **Thyroid peroxidase (anti-TPO) antibody blood test.** This test detects the presence of antibodies directed against the thyroid. Most people with Hashimoto's disease have these antibodies, but people whose hypothyroidism is caused by other conditions do not.

## HOW IS HASHIMOTO'S DISEASE TREATED?

Not everyone with Hashimoto's disease has hypothyroidism. If you do not have a thyroid hormone deficiency, your doctor may recommend regular observation rather than treatment with medication. If you do have a deficiency, treatment involves thyroid hormone replacement therapy. The most effective treatment is a synthetic (man-made) T4 medicine called levothyroxine.

Levothyroxine is identical to the T4 produced by your body. A daily pill can restore normal levels of thyroid hormone and TSH in your bloodstream and make your thyroid function normal. You will probably need to take this medicine daily for the rest of your life, but your dose may need to be adjusted from time to time. To maintain consistent thyroid hormone levels in your blood, you should always take the same brand since not all medicines are exactly the same.

People are not routinely screened for hypothyroidism. However, if you are at risk for thyroid disease and are thinking about getting pregnant, you should be tested. Hypothyroidism is easily treated and you can protect your child from birth defects.

## Questions to ask your doctor

- **Do my symptoms mean I have hypothyroidism?**
- **How can I tell if my hypothyroidism is caused by Hashimoto's disease?**
- **Is there any difference in the way hypothyroidism and Hashimoto's disease are treated?**
- **What medicines do I need? When should I take them?**
- **How often should I see my doctor?**
- **Should I see an endocrinologist for my care?**

## RESOURCES

- Find-an-Endocrinologist: [www.hormone.org](http://www.hormone.org) or call 1-800-HORMONE (1-800-467-6663)
- Hormone Foundation Thyroid Disorders Information: [www.hormone.org/thyroid](http://www.hormone.org/thyroid)
- American Thyroid Association: [www.thyroid.org](http://www.thyroid.org)
- Mayo Clinic: [www.mayoclinic.com/health/hashimotos-disease/DS00567](http://www.mayoclinic.com/health/hashimotos-disease/DS00567)
- National Endocrine and Metabolic Diseases Information Service (National Institutes of Health): [www.endocrine.niddk.nih.gov/pubs/Hashimoto](http://www.endocrine.niddk.nih.gov/pubs/Hashimoto)

## POSSIBLE SYMPTOMS OF HASHIMOTO'S DISEASE

- Enlarged thyroid (or goiter)
- Trouble swallowing
- Intolerance to cold
- Mild weight gain
- Fatigue
- Constipation
- Dry skin
- Hair loss
- Heavy and irregular menses
- Infertility
- Difficulty concentrating or thinking

## EDITORS

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The Hormone Health Network offers free, online resources based on the most advanced clinical and scientific knowledge from The Endocrine Society ([www.endo-society.org](http://www.endo-society.org)). The Network's goal is to move patients from educated to engaged, from informed to active partners in their health care. This fact sheet is also available in Spanish at [www.hormone.org/Spanish](http://www.hormone.org/Spanish).

Hashimoto's Disease Fact Sheet



[www.hormone.org](http://www.hormone.org)