

## **All About Hashimoto's Thyroiditis**

When your thyroid, the small, butterfly-shaped gland located low in the front of the neck below your Adam's apple, doesn't produce enough or sufficient hormones, it can throw off your body's entire chemical balance, resulting in a condition called hypothyroidism – the term used to describe an underactive thyroid gland.

The most common cause of hypothyroidism is Hashimoto's thyroiditis, named after Japanese physician Dr. Haruko Hashimoto, who first described the illness in 1912.

Also called chronic lymphocytic thyroiditis or autoimmune thyroiditis, Hashimoto's is an autoimmune disorder in which the body's disease-fighting immune cells mistakenly detect the body's thyroid gland as being foreign material and attack healthy thyroid tissue, thus impairing its ability to make enough thyroid hormones for your body to function properly (see related story on page 14). Depending on the severity of the disease, symptoms of Hashimoto's typically develop unnoticeably or slowly over several years, however, most will eventually experience some degree of hypothyroidism that worsens over time.

Hashimoto's thyroiditis does not discriminate. It can affect anyone at any age, but occurs most commonly in women over age 40 and may occur with increased frequency in those with a family history of thyroid disease or other autoimmune disease, especially type 1 diabetes or adrenal insufficiency, a condition in which the adrenal glands located on top of the kidneys don't produce adequate amounts of steroid hormones. Adrenal glands are necessary to combat medical stress and for otherwise being healthy.

To better understand the impact of Hashimoto's, it's important to be familiar with how the thyroid works.

The thyroid gland has many functions and through the hormones that it produces influences almost all of the metabolic processes of the body. The thyroid is regulated by the pituitary gland, which sits in the brain and monitors many hormones. When your thyroid is overproducing hormones (hyperthyroidism), the pituitary gets a signal and shuts down thyroid production. Conversely, if your thyroid isn't making enough hormones (hypothyroidism), your pituitary signals the thyroid gland to make more.

Symptoms people can experience when they have an excess of thyroid hormone, or an overactive thyroid, include feeling hot, a racing heart, tremors and weight loss, whereas those with an underactive thyroid may experience low energy, weight gain and fatigue. Other common symptoms include feeling cold, dry skin and hair, constipation and menstrual irregularities.

Hyperthyroidism and hypothyroidism aren't the only complications associated with Hashimoto's thyroiditis. In some people, the condition can also cause a painless enlargement of the thyroid, commonly known as goiter. The larger the goiter the more likely it is to be visible. A goiter, particularly a large one, may also cause symptoms such as difficulty swallowing. When this occurs you will have to undergo additional testing to determine if surgery to remove all or part of the goiter is necessary.

## Diagnosis And Treatment Of Hashimoto's

Since Hashimoto's is one of many possible causes of an underactive thyroid, it's important to tell your physician about your family health history, especially about recent infections, recent imaging tests in which medical dyes that contain iodine were used (which can affect the function of the thyroid), any new medications you are taking, both prescription and over-the-counter, and any family members with thyroid conditions.

If your doctor suspects that you have Hashimoto's because you have low thyroid hormone levels, goiter or, in some cases, repeated miscarriages without explanation, you will most likely undergo blood tests looking for antibodies to the thyroid (anti-thyroglobulin, or TgAb, and antithyropoxidase, or anti-TPO). These tests are positive in 95 percent of patients with Hashimoto's thyroiditis. Therefore, it's unusual for there to be no antibodies in the blood. Once antibodies are determined to be present, they are diagnostic of Hashimoto's thyroiditis and do not have to be monitored.

Also, your medical team may monitor your TSH (thyroid-stimulating hormone) blood level. If your thyroid is not producing enough hormone, your pituitary gets the message and starts releasing TSH to stimulate the thyroid gland. People with hypothyroidism will have an elevated TSH. Levels are monitored in order to make sure there is enough hormone for the body. This is reflected in a TSH level which may be different in the elderly or pregnant women than in the rest of the population, where it's usually around 1.0.

Once a diagnosis of Hashimoto's is confirmed, the only treatment that is often necessary is to replace the thyroid hormone that your body is no longer able to produce. Your doctor may prescribe a generic (levothyroxine, T4) or a brand-name hormone replacement medication which should be taken on an empty stomach, ideally one hour before eating or four hours after your last meal.

Approximately six weeks after starting the medication, more blood work will be needed to see if adjustments in dosage are necessary. For women, it's important to inform your doctor if you are intending on becoming pregnant, as your dose may change or thyroid medication may need to be started in order to assure a successful pregnancy.

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## **A Few Words About “Natural” Thyroid Medications**

Before active thyroid hormone was discovered, dried animal thyroid (such as Armour® thyroid extract) was used to treat hypothyroidism. There are several potential issues with these medications, which is why physicians typically do not recommend their use.

These “natural” remedies have chemical compounds used to hold them together. And they are not “natural.” Plus, the natural release of thyroid from the functioning thyroid gland is different than the stored thyroid within the gland found in such “natural” thyroid extracts. Thyroid hormones come in two forms, T4 and T3. The T4 is converted naturally in the body to T3. Too much T3 causes palpitations and bone thinning. These so-called “natural” thyroid preparations have too much T3 compared to what the body normally secretes. It's much better to let the body make the T3 that it needs by providing just the T4 (levothyroxine). Lastly, taking T3 during pregnancy can throw off the balance of T4 and T3 levels that appear to be necessary for normal fetal brain development.