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Hashimoto's Disease

Q: What is Hashimoto's disease?

A: Hashimoto's disease is an autoimmune disease that affects the thyroid. It also is called Hashimoto's thyroiditis (they-royd-EYET-uhss). The thyroid is a small gland in the front of the neck. The thyroid makes hormones called T3 and T4 that regulate how the body uses energy. Thyroid hormone levels are controlled by the pituitary, which is a pea-sized gland in the brain. It makes thyroid stimulating hormone (TSH), which triggers the thyroid to make thyroid hormone.

With Hashimoto's disease, the immune system makes antibodies that damage thyroid cells and interfere with their ability to make thyroid hormone. Over time, thyroid damage can cause thyroid hormone levels to be too low. This is called an underactive thyroid or hypothyroidism (hey-poh-THEYE-royd-ism). An underactive thyroid causes every function of the body to slow down, such as heart rate, brain function, and the rate your body turns food into energy. Hashimoto's disease is the most common cause of an underactive thyroid. It is closely related to Graves' disease, another autoimmune disease affecting the thyroid.

Q: What are the symptoms of Hashimoto's disease?

A: Many people with Hashimoto's disease have no symptoms for years. An enlarged thyroid, called a goiter, is often

the first sign of disease. The goiter may cause the front of the neck to look swollen. You or your doctor may notice the goiter. If large, it may cause a feeling of fullness in the throat or make it hard to swallow. It rarely causes pain.

Many people with Hashimoto's disease develop an underactive thyroid. They may have mild or no symptoms at first. But symptoms tend to worsen over time. Symptoms of an underactive thyroid include:

- Fatigue
- Weight gain
- Pale, puffy face
- Feeling cold
- Joint and muscle pain
- Constipation
- Dry, thinning hair
- Heavy menstrual flow or irregular periods
- Depression
- A slowed heart rate
- Problems getting pregnant

Q: Who gets Hashimoto's disease?

A: Hashimoto's disease is about 7 times more common in women than in men. It can occur in teens and young women, but more commonly shows up in middle age. People who get Hashimoto's disease often have family members who have thyroid or other autoimmune diseases. People who get Hashimoto's disease sometimes have other autoimmune diseases, such as:

- **Vitiligo** (vit-ihl-EYE-goh) — a disease that destroys the cells that give your skin its color



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- **Rheumatoid arthritis** — a disease that affects the lining of the joints throughout the body
- **Addison's disease** — a disease that affects the adrenal glands, which make hormones that help your body respond to stress and regulate your blood pressure and water and salt balance
- **Type 1 diabetes** — a disease that causes blood sugar levels to be too high
- **Graves' disease** — a disease that causes the thyroid to make too much thyroid hormone
- **Pernicious (pur-NISH-uhss) anemia** — a disease that keeps your body from absorbing vitamin B12 and making enough healthy red blood cells
- **Lupus** — a disease that can damage many parts of the body, such as the joints, skin, blood vessels, and other organs

Q: What causes Hashimoto's disease?

- A:** Many factors are thought to play a role in getting Hashimoto's disease. These include:
- **Genes.** Some people are prone to Hashimoto's disease because of their genes. Researchers are working to find the gene or genes involved.
 - **Gender.** Sex hormones also might play a role. This may help to explain why Hashimoto's disease affects more women than men.
 - **Pregnancy.** Pregnancy affects the thyroid. Some women have thyroid problems after having a baby,

which usually go away. But about 20 percent of these women develop Hashimoto's disease in later years. This suggests that pregnancy might trigger thyroid disease in some women.

- **Too much iodine and some drugs** may trigger the onset of thyroid disease in people prone to getting it.
- **Radiation exposure** has been shown to bring on autoimmune thyroid disease. This includes radiation from the atomic bomb in Japan, the nuclear accident at Chernobyl, and radiation treatment of Hodgkin's disease (a type of blood cancer).

Q: How do I find out if I have Hashimoto's disease?

A: If you have symptoms of Hashimoto's disease, your doctor will do an exam and order one or more tests. Sometimes, routine screening of thyroid function reveals a mildly underactive thyroid in a person with no symptoms. Tests used to find out if you have Hashimoto's disease include:

- **Thyroid function tests.** A blood test is sent to a lab to see if your body has the right amount of TSH and thyroid hormone (T4). An above normal level of TSH is a sign of an underactive thyroid. When the thyroid begins to fail, the pituitary makes more TSH so as to trigger the thyroid to make more thyroid hormone. For a while, the thyroid can keep up, and the blood test will show slightly higher TSH levels with normal T4 levels. This is called subclinical hypothyroidism. But over time, the damaged thyroid



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cannot keep up, and T4 levels will drop below normal while TSH levels are high.

- **Antibody test.** A blood sample is sent to a lab to look for antibodies that suggest Hashimoto's disease. Most people with Hashimoto's disease will have specific antibodies that people with other causes of an underactive thyroid do not have. Some people have the antibodies seen with Hashimoto's disease, but have normal thyroid function. Having only the antibodies does not cause any symptoms.

Hashimoto's disease can be harder to diagnose during pregnancy. For one, Hashimoto's disease has many of the same symptoms as normal pregnancy, such as fatigue and weight gain. Yet untreated underactive thyroid during pregnancy may affect the baby's growth and brain development. So make sure to tell your doctor if you have symptoms of thyroid problems.

Q: How is Hashimoto's disease treated?

A: Hashimoto's disease responds well to treatment. It is treated with a single daily tablet of levothyroxine (lee-voh-thye-ROKS-een). This is a manmade form of T4 thyroid hormone. It also is called thyroid replacement therapy because it restores back to normal the T4 that the damaged thyroid can no longer make. It almost always needs to be taken for the rest of a person's life and in the same manner each day.

Thyroid replacement medication comes in different amounts. The exact dose depends on:

- Age
- Weight
- Severity of the underactive thyroid, if present
- Other health problems
- Use of other medicines that can interact with levothyroxine

When you start treatment, you will need a follow-up TSH test so your doctor can fine-tune your dose. Thyroid hormone acts very slowly in the body, so it can take several months after the start of treatment for symptoms to go away and goiter to shrink. If the dose is too strong, thyroid hormone levels will become too high. This is called hyperthyroidism. Too much thyroid hormone can cause heart problems and bone loss. So finding the right dose is important.

Once the TSH level is normal, your doctor will need to see you less often. Most people have a thyroid checkup and TSH test once a year. Usually, the same treatment dose works for a long time and often does not need to be adjusted until a person's 70s or 80s. Yet, the dose may need to be changed in some cases, such as with pregnancy, heart disease, or if using menopausal hormone therapy.

Whether to treat a mildly underactive thyroid without symptoms is an area of debate. Hashimoto's disease is the cause in most cases. Many doctors feel that treatment can help these patients. Treatment will keep symptoms from starting. Also, some studies have shown that a mildly underactive thyroid can increase the risk of other health problems, including heart disease. We don't know yet if treating a mildly underac-



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tive thyroid will lower these risks. But some studies have shown thyroid hormone treatment might protect against heart disease. If a screening test reveals you have a mildly underactive thyroid without symptoms, talk to your doctor about your options.

Q: What would happen if Hashimoto's disease is not treated?

A: Without treatment, Hashimoto's disease may progress and symptoms of an underactive thyroid can get worse. An untreated underactive thyroid can cause further problems, including:

- Infertility
- Miscarriage
- Giving birth to a baby with birth defects
- High cholesterol

Severe underactive thyroid called myxedema (mik-suh-DEE-muh) can very rarely lead to:

- Heart failure
- Seizures
- Coma
- Death

Q: Does pregnancy affect the thyroid?

A: Normal hormone changes during pregnancy cause thyroid hormone levels to increase. The thyroid may enlarge slightly in healthy women during pregnancy, but not enough to be felt. These changes do not affect the pregnancy or unborn baby. Yet, untreated thyroid problems can threaten pregnancy and the growing baby. Symptoms of normal

pregnancy, like fatigue, can make it easy to overlook thyroid problems in pregnancy. So if you have symptoms of an underactive thyroid or notice a goiter, make sure to tell your doctor.

Thyroid hormone is vital during pregnancy. The unborn baby's brain and nervous system need thyroid hormone to develop. During the first trimester, the baby depends on the mother's supply of thyroid hormone. At 10 to 12 weeks of pregnancy, the baby's thyroid begins to work on its own. But the baby still depends on the mother for iodine, which the thyroid uses to make thyroid hormone. Pregnant women need about 250 micrograms (mcg) of iodine a day. Some women might not get all the iodine they need through the foods they eat or prenatal vitamins. Choosing iodized salt — salt that has had iodine added to it — over plain table salt is one way to ensure you get enough iodine. Also, prenatal vitamins that contain iodine are recommended.

Some women develop thyroid problems in the first year after giving birth. This is called postpartum thyroiditis (theye-royd-EYET-uhss). It often begins with symptoms of an overactive thyroid, which last 2 to 4 months. Mild symptoms might be overlooked. Most women then develop symptoms of an underactive thyroid, which can last up to a year. An underactive thyroid needs to be treated. In most cases, thyroid function returns to normal as the thyroid heals.

Q: Do I need a thyroid test if I become pregnant?

A: Experts have not reached agreement on whether all pregnant women should be routinely screened for thyroid prob-



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lems. But, if an underactive thyroid with or without symptoms is found during pregnancy, your doctor will treat you to lower your risk of pregnancy problems. An underactive thyroid without symptoms occurs in 2 to 3 in every 100 pregnancies. If you want to become or are newly pregnant, talk to your doctor about thyroid screening.

Q: I have Hashimoto's disease and want to have a baby. What should I do before I try to get pregnant?

A: Women being treated for Hashimoto's disease can become pregnant. But make sure your pregnancy is planned. Thyroid function must be well-controlled before you get pregnant.

Untreated or poorly treated underactive thyroid can lead to problems for the mother, such as:

- Preeclampsia (pree-ee-CLAMP-see-uh)
- Anemia
- Miscarriage
- Placental abruption
- Postpartum bleeding

It also can cause serious problems for the baby, such as:

- Preterm birth
- Low birth weight
- Stillbirth

- Birth defects
- Thyroid problems

Talk to your doctor about how to prepare for pregnancy or about birth control if you do not want to become pregnant.

Q: How is Hashimoto's disease treated during pregnancy?

A: During pregnancy, you may need to see both your OB/GYN and an endocrinologist (en-doh-krih-NOL-uh-jist), a doctor who treats people with hormone problems. Levothyroxine is safe to use during pregnancy and necessary for the health of the baby. Women with Hashimoto's disease or an underactive thyroid who are taking levothyroxine before pregnancy may need a higher dose to maintain normal thyroid function. Thyroid function should be checked every 6 to 8 weeks during pregnancy. After you have your baby, you will likely go back to your pre-pregnancy dose.

Q: Can I breastfeed if I am using thyroid replacement therapy?

A: Levothyroxine does pass through breast milk. But it is not likely to cause problems for the baby. Also, you may not be able to make breast milk if your thyroid is underactive. Your doctor can help you decide what is best for you and your baby. ■



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For more information

For more information about Hashimoto's diseases, call womenshealth.gov at 800-994-9662 or contact the following organizations:

**Endocrine and Metabolic Diseases
Information Service, NIDDK, NIH,
DHHS**

Phone: 888-828-0904

Internet Address: <http://www.endocrine.niddk.nih.gov>

**American Autoimmune Related
Diseases Association, Inc.**

Phone: 586-776-3900; Toll-Free: 800-598-4668 (for literature requests)

Internet Address: <http://www.aarda.org>

American Thyroid Association

Phone: 800-THYROID (849-7643)

Internet address: <http://www.thyroid.org>

The Hormone Foundation

Phone: 800-HORMONE (467-6663)

Internet address: <http://www.hormone.org>

New York Thyroid Center

Phone: 800-543-2782; 212-305-0442

Internet Address: <http://cpmcnet.columbia.edu/dept/thyroid>

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