



## Thyroid Disease

*The thyroid is a gland that controls key functions of your body. Disease of the thyroid gland can affect nearly every organ in your body and harm your health. Thyroid disease is eight times more likely to occur in women than in men. In some women it occurs during or after pregnancy.*

*This pamphlet explains*

- *symptoms of thyroid disease*
- *some causes of this disease*
- *how it is treated*
- *the effects of thyroid disease during pregnancy*

### The Thyroid Gland

The thyroid gland is located at the base of your neck in front of your trachea (windpipe). It has two sides and is shaped like a butterfly.

The thyroid gland makes, stores, and releases two hormones—T4 (thyroxine) and T3 (triiodothyronine). Thyroid hormones control the rate at which every part of your body works. This is called your metabolism. When your thyroid gland is working the way it should, your metabolism stays at a steady pace—not too fast or too slow.

The thyroid gland is controlled by the pituitary gland (a gland in your brain). The pituitary gland makes **thyroid-stimulating hormone (TSH)**. TSH tells the thyroid gland to make more hormone if needed.

If there is not enough thyroid hormone in the bloodstream, the body's metabolism slows down. This condition is called **hypothyroidism** (underactive thyroid). If there is too much thyroid hormone, your metabolism speeds up. This condition is called **hyperthyroidism** (overactive thyroid). Certain disorders can cause the

thyroid gland to make too much or too little hormone. Women at risk include those who have or have had an autoimmune disease (such as **diabetes mellitus**).

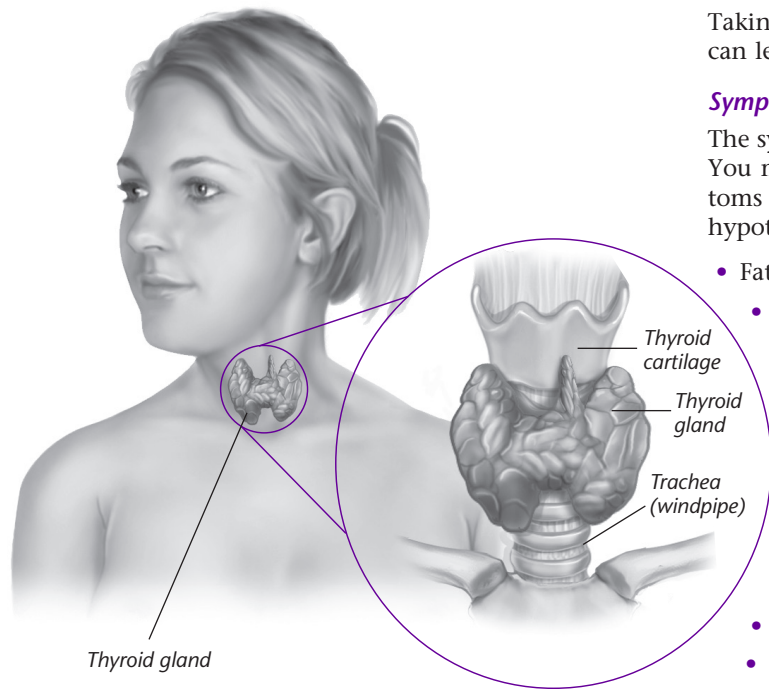
### Diagnosing Thyroid Disease

Thyroid disease is diagnosed by your symptoms, an exam, and tests. Symptoms of thyroid disease can be much like symptoms of other health problems.

Your health care professional will examine your neck while you swallow. The thyroid gland moves when you swallow, making it easier to feel. Your health care professional also may examine your skin and eyes and check your weight and temperature.

The following tests may be used to help find the exact cause of the problem:

- Blood tests
- **Ultrasound exam** of the thyroid
- Thyroid scan



During a thyroid scan, you drink a small amount of radioactive iodine. A special camera then detects the areas of thyroid gland that absorb the radioactive iodine. Results of this test show areas of the thyroid gland that are underactive or overactive. This test will not be done if you are pregnant.

## Hypothyroidism

Hypothyroidism occurs when the thyroid gland is not making enough thyroid hormone. This causes your metabolism to slow down.

### Causes

The most common cause of hypothyroidism is a disorder known as thyroiditis—an inflammation of the thyroid gland. The most common type of thyroiditis is called Hashimoto disease. This disease causes the immune system—your body’s natural defense against disease—to mistake cells in the thyroid gland for harmful invaders. Your body sends out white blood cells to destroy them. The pituitary gland then releases TSH to tell the thyroid gland to make more thyroid hormone. This demand on the thyroid gland can cause it to enlarge. This enlargement is called a **goiter**. Over time, Hashimoto disease may decrease the thyroid’s ability to produce hormones.

Hypothyroidism also can result from a diet that does not have enough iodine. The diet of most Americans is thought to have enough iodine because of the use of iodized salt. Some food sources of iodine include:

- Spinach
- Shrimp
- Oysters
- Lobster

Taking too much medication to treat hyperthyroidism can lead to hypothyroidism, too.

### Symptoms

The symptoms of hypothyroidism are slow to develop. You may have the condition but not have any symptoms for months or years. Common symptoms of hypothyroidism include the following:

- Fatigue or weakness
- Weight gain
- Decreased appetite
- Change in menstrual periods
- Loss of sex drive
- Feeling cold when others do not
- Constipation
- Muscle aches
- Puffiness around the eyes
- Brittle nails
- Hair loss

If your lab tests show that the hormone levels are normal, some other condition may be causing your symptoms.

### Treatment

In most cases, hypothyroidism is treated with medication that contains thyroid hormone. The dose of the medication is increased slowly until a normal level has been reached in the blood.

Most people with hypothyroidism have to take the hormone for the rest of their lives. The dose may need to be changed from time to time. The level of the hormone in the blood is checked regularly.

## Hyperthyroidism

Hyperthyroidism results when the thyroid gland is making too much thyroid hormone. This causes your metabolism to speed up.

### Causes

The most common cause of hyperthyroidism is a disorder known as Graves disease. It most often affects women between the ages of 20 years and 40 years. A late sign of Graves disease is often a wide-eyed stare or bulging eyes.

Hyperthyroidism also may result from medication. Taking too much thyroid hormone when being treated for hypothyroidism can lead to symptoms of an overactive thyroid. Lumps in the thyroid called hot nodules are another cause. These lumps produce excess thyroid hormone.

### Symptoms

Common symptoms of hyperthyroidism include the following:

- Fatigue
- Weight loss

- Nervousness
- Rapid heart beat
- Increased sweating
- Feeling hot when others do not
- Changes in menstrual periods
- More frequent bowel movements
- Tremors

Sometimes a condition called thyroid storm may develop in women with hyperthyroidism who also have another health problem (such as a major infection). Thyroid storm is a condition that can cause fever, rapid heart rate, and changes in the way your brain works (such as confusion, seizures, restlessness, and coma).

### Treatment

Treatment for hyperthyroidism will decrease the amount of thyroid hormone and relieve your symptoms. Antithyroid medication can be used to reduce the amount of thyroid hormone your body is making. Medications known as beta blockers control rapid heart beat.

If these medications do not help, your health care professional may suggest treatment with high-dose radioactive iodine to destroy parts of the thyroid gland. In some cases, surgery may be needed to remove the thyroid gland.

### Thyroid Nodules

A nodule is a lump in the thyroid gland. You may notice the lump on your own, or it may be detected during a routine exam. When a thyroid nodule is found, it will be checked to see if it is benign (not cancer) or malignant (cancer).

Your health care professional also may use an ultrasound exam to examine the nodule. Nodules may be further examined by a procedure known as *fine-needle aspiration* or biopsy.

If no cancer cells are found, your health care professional may either prescribe a thyroid hormone to decrease the size of your nodule or suggest surgery to remove it. If cancer cells are found, further treatment will be needed. Thyroid cancer usually can be treated with success.

### Thyroid Disease During Pregnancy

Thyroid disease can pose a risk to both the woman and fetus during pregnancy (see box). With treatment, however, most pregnant women with thyroid disease can have healthy babies. The chance of problems during pregnancy is greatest when thyroid disease is not treated and controlled.

Treatment with medication and close monitoring by your health care professional can decrease the risk of problems. The levels of thyroid hormone in your body will be checked at regular intervals during your pregnancy to be sure they are at healthy levels.

## Thyroid Disease During Pregnancy

### Risks of Untreated Hypothyroidism

#### Fetus

- *Preterm* birth
- Smaller than normal
- Possible death

#### Woman

- *Miscarriage*
- *Gestational hypertension*

### Risks of Untreated Hyperthyroidism

#### Fetus

- Preterm birth
- Smaller than normal
- Possible death

#### Woman

- Preterm labor
- *Stillbirth*
- Heart failure
- *Preeclampsia*

Many medications used to treat thyroid disease in pregnancy are safe for your fetus. You may be monitored closely while you are being treated. Radioactive iodine, which is sometimes used to treat hyperthyroidism, cannot be taken during pregnancy. It may injure the thyroid gland of the fetus and increase the risk of hypothyroidism after birth.

Some women may not have thyroid problems during pregnancy, but develop problems after birth. This condition is called postpartum thyroiditis. It often is a short-term problem and hormone levels quickly return to normal. Sometimes this condition can lead to long-term hypothyroidism, which will require treatment.

If you have a history or symptoms of thyroid disease and are thinking of becoming pregnant or are pregnant already, talk to your health care professional. Testing the function of the thyroid gland is not a routine part of prenatal care.

### Finally...

Women are more likely than men to have thyroid problems. If you have symptoms of thyroid disease, you should see your health care professional and be tested. Once thyroid disease is diagnosed, it almost always can be treated with success.

## Glossary

**Diabetes Mellitus:** A condition in which the levels of sugar in the blood are too high.

**Fine-Needle Aspiration:** A procedure to get a small amount of tissue using a needle and syringe. The tissue is examined under a microscope to look for cancer cells.

**Gestational Hypertension:** High blood pressure that is diagnosed after 20 weeks of pregnancy.

**Goiter:** An enlarged thyroid gland that causes a lump in the neck.

**Hyperthyroidism:** A condition in which the thyroid gland makes too much thyroid hormone.

**Hypothyroidism:** A condition in which the thyroid gland makes too little thyroid hormone.

**Miscarriage:** Loss of a pregnancy that is in the uterus.

**Preeclampsia:** A disorder that can occur during pregnancy or after childbirth in which there is high blood pressure and other signs of organ injury. These signs include an abnormal amount of protein in the urine, a low number of platelets, abnormal kidney or liver function, pain over the upper abdomen, fluid in the lungs, or a severe headache or changes in vision.

**Preterm:** Less than 37 weeks of pregnancy.

**Stillbirth:** Birth of a dead fetus.

**Thyroid-Stimulating Hormone (TSH):** A hormone made by the pituitary gland that encourages the thyroid gland to make and release more thyroid hormone.

**Ultrasound Exam:** A test in which sound waves are used to examine inner parts of the body. During pregnancy, ultrasound can be used to check the fetus.

This information was designed as an educational aid to patients and sets forth current information and opinions related to women's health. It is not intended as a statement of the standard of care, nor does it comprise all proper treatments or methods of care. It is not a substitute for a treating clinician's independent professional judgment. Please check for updates at [www.acog.org](http://www.acog.org) to ensure accuracy.

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