



Patient education: Hyperthyroidism (overactive thyroid) (The Basics)

Written by the doctors and editors at UpToDate

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What is hyperthyroidism?

This is a condition that can make a person feel shaky, anxious, and tired. It happens when a gland in the neck, called the thyroid gland, makes too much thyroid hormone ([figure 1](#)). This hormone controls how the body uses and stores energy.

With a different condition, **hypothyroidism**, the thyroid gland makes too little thyroid hormone. With **hyperthyroidism**, it makes too much. Doctors sometimes also use the term "overactive thyroid."

What are the symptoms of hyperthyroidism?

Some people with hyperthyroidism have no symptoms. When they do occur, symptoms can include:

- Anxiety, irritability, or trouble sleeping
- Weakness (especially in the arms and thighs, which can make it hard to lift heavy things or climb stairs)
- Trembling
- Sweating a lot and having trouble dealing with hot weather
- Fast or uneven heartbeats
- Feeling tired
- Weight loss even when eating normally
- Frequent bowel movements

Hyperthyroidism can also cause a swelling in the neck called a "goiter." If it is caused by a medical problem called Graves' disease, the condition can also make the eyes bulge ([figure 2](#)).

Untreated hyperthyroidism can cause a heart rhythm disorder called "atrial fibrillation," chest pain, and, rarely, heart failure. When untreated, it can also cause osteoporosis. This is a disease that makes bones weak.

Hyperthyroidism can disrupt monthly periods. It can also make it hard to get pregnant. In males, hyperthyroidism can cause the breasts to grow or lead to sexual problems. These problems go away when hyperthyroidism is treated.

Is there a test for hyperthyroidism?

Yes. Your doctor or nurse can test for hyperthyroidism using a simple blood test. If the blood test indicates a problem, the doctor or nurse might run other tests, too.

How is hyperthyroidism treated?

Hyperthyroidism can be treated with:

- **Medicines** – There are 2 types of medicines that can treat hyperthyroidism:
 - Anti-thyroid medicines reduce the amount of hormone the thyroid gland makes.
 - Beta blocker medicines help reduce the symptoms of hyperthyroidism. Beta blockers can make you more comfortable until the thyroid imbalance is under control.
- **Radioiodine** – Radioiodine comes in a pill or liquid you swallow. It destroys the overactive part of the thyroid gland. If you are pregnant, do not use this treatment, because it can damage the baby's thyroid gland. But the treatment is safe for people who are not pregnant. The amount of radiation is small. It does not cause problems getting pregnant in the future or increase the risk of birth defects in future pregnancies.

Radioiodine can make eye bulging worse in people with Graves' disease, especially if they smoke. If you have Graves' eye disease, your doctor might suggest medicines instead of radioiodine, or might give you a different medicine (a steroid) before you use radioiodine to help prevent bulging of the eyes.

- **Surgery** – Doctors can do surgery to remove part or all of the thyroid gland. Doctors do not often recommend surgery, because the other treatment choices are safer and less costly. But surgery is the best choice in some cases.

Most people who are treated with radioiodine or who have surgery end up making too little thyroid hormone after treatment. They must take thyroid hormone pills after treatment for the rest of their life.

What if I want to get pregnant?

If you take anti-thyroid medicine, talk to your doctor or nurse before you start trying to get pregnant. You will probably need to take different medicines at different times in your pregnancy. Plus, your doses might need to be adjusted.

If you were treated with radioiodine, wait at least 6 months before you start trying to get pregnant. This will give your doctor enough time to find out if your thyroid is making enough thyroid hormone after the radioiodine treatment. If the radioiodine caused the thyroid to make too little thyroid hormone, you will need to take thyroid hormone pills. It is important to have a normal amount of thyroid hormone in your body before getting pregnant.

Whatever treatment you use, you should have your thyroid hormone levels checked often during pregnancy. Thyroid hormone levels must be at the right level during pregnancy to avoid risks to both you and your baby.

When should I call the doctor?

Call your doctor or nurse if:

- Your symptoms are getting worse.
 - You notice changes in your heartbeat – This can include feeling like your heart is beating hard, beating fast, or skipping a beat.
 - You feel short of breath.
 - You feel warm and sweaty all of the time.
 - You can't sleep at night.
 - You start seeing double.
 - Your eyes feel gritty and look red.
 - You feel anxious, irritable, or depressed, or have other mood changes.
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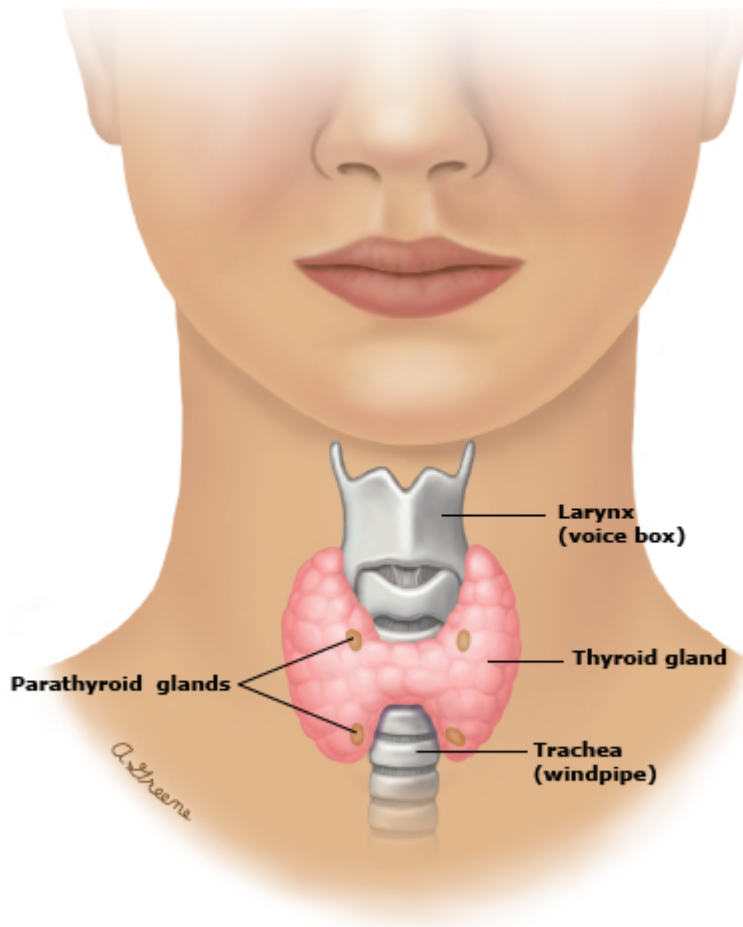
This topic retrieved from UpToDate on: Jun 22, 2025.

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Topic 15437 Version 20.0

GRAPHICS

Thyroid and parathyroid glands

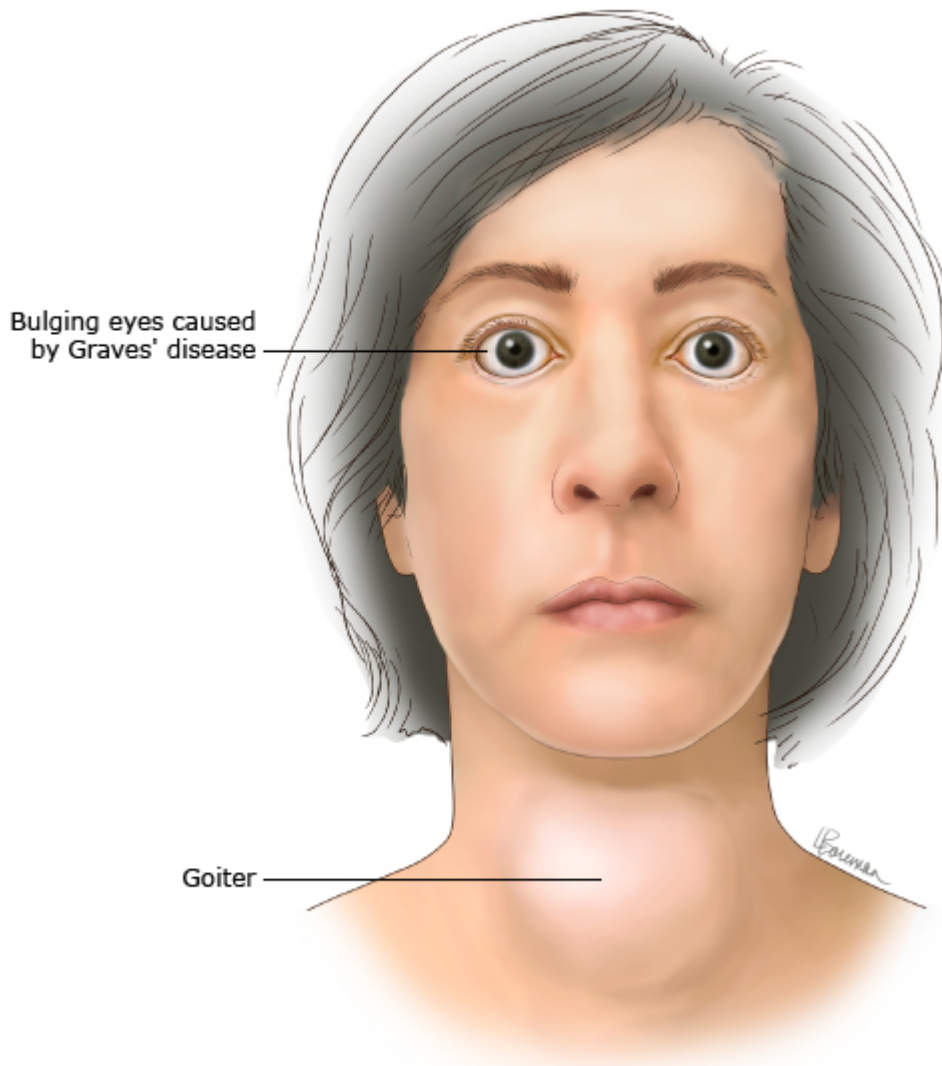


The thyroid is a butterfly-shaped gland in the middle of the neck. It sits just below the larynx (voice box). The thyroid makes 2 hormones, called T3 and T4, which control how the body uses and stores energy. The parathyroid glands are 4 small glands behind the thyroid. They make a hormone called parathyroid hormone, which helps control the amount of calcium in the blood.

T3: triiodothyronine; T4: thyroxine.

Graphic 66834 Version 10.0

Hyperthyroidism



Hyperthyroidism is when the thyroid gland in the neck is "overactive" and makes too much thyroid hormone. This can cause a swelling in the neck, called a "goiter." If hyperthyroidism is caused by a medical condition called Graves' disease, it can also make the eyes bulge out.

Graphic 58509 Version 10.0

