

Hyperthyroidism (High Thyroid Level)

What is hyperthyroidism?

Hyperthyroidism is overactivity of the thyroid gland. This means the gland makes too much thyroid hormone. Too much hormone speeds up chemical reactions in the body. This causes mental and physical changes.

The thyroid gland is a small gland in the lower front of the neck. This gland takes iodine from the food you eat to make hormones called thyroxine (T4) and triiodothyronine (T3). The hormones control your metabolism (the chemical processes your body uses to turn the food you eat into energy). You need thyroid hormones to control body functions, such as temperature, heart rate, appetite, and digestion.

The most common form of hyperthyroidism is called Graves' disease. It occurs more often in women than men. It's especially likely to affect women in their childbearing years between 20 and 40.

What is the cause?

Possible causes of hyperthyroidism are:

- Your immune system is not working properly.
- Your body may be making a substance that causes the thyroid gland to make more hormone than your body needs.
- In rare cases there is a tumor that is causing the thyroid gland to make too much hormone.

Some thyroid gland problems may be inherited.

What are the symptoms?

Some common symptoms include:

- Anxiety
- Trouble sleeping
- Tiredness
- Feeling shaky, having tremors
- Feeling sweaty and hot
- Shortness of breath
- Weight loss
- Fast or irregular pulse
- Enlarged thyroid gland (goiter) that makes your neck look swollen
- Diarrhea

How is it diagnosed?

Your healthcare provider will ask about your medical history and symptoms and will examine you. You will have blood tests. These tests measure hormone levels and check thyroid gland function and your immune system. Additional tests may be done to check the thyroid gland:

- A radioactive iodine scan, or RAI uptake. This test shows if there are areas of the thyroid gland making more or less hormone than normal. For this test you will be given a very tiny amount of a radioactive form of iodine. Because the body uses iodine to make thyroid hormone, the radioactive iodine attaches to thyroid hormone being made in the thyroid gland. A scan to look for radioactivity in the thyroid gland then shows areas of the gland making thyroid hormone. (The iodine becomes nonradioactive in 3 days.) Sometimes a radioactive chemical similar to iodine may be used instead of iodine.
- A scan of the thyroid gland with ultrasound. This is another way to look at the thyroid gland. The ultrasound scan can show cysts or tumors in the gland. It can also be used to measure the size of the gland.

Eye problems related to thyroid disease may require a CT scan or ultrasound to check the muscles that move the eye. Thyroid disease can make these muscles swell.

How is it treated?

Hyperthyroidism may be treated with medicine, radiation, or surgery. These treatments lower the amount of thyroid hormone in the body.

The 2 treatments used most often are antithyroid medicine and radioactive iodine.

- Antithyroid drugs lower the amount of thyroid hormone made by the thyroid gland. They usually control hyperthyroidism in several weeks. Propylthiouracil (PTU) and methimazole (Tapazole) are 2 commonly used antithyroid drugs. You may need to keep taking these drugs for a year or longer. Your healthcare provider may need to adjust the doses often.
- A pill containing radioactive iodine may be used to treat some types of hyperthyroidism, especially if you have had hyperthyroidism more than once. The radiation is concentrated in the thyroid gland and destroys the cells that are making too much hormone. The main risk of this treatment is that your thyroid levels will become too low. If this happens, your healthcare provider can prescribe thyroid hormone medicine to bring your thyroid levels back to normal. You may need to keep taking this medicine for the rest of your life, but this is safer than having uncontrolled high thyroid levels.

Other medicines may be prescribed to help control your symptoms.

A third possible treatment is surgery to remove part or all of the thyroid gland or to remove a growth (tumor) in the gland. Surgery usually cures the disease. However, surgery has risks. Because there are so many important nerves and glands in the area of the thyroid gland, the surgery can have some serious complications. You can reduce the risk by choosing an experienced thyroid

surgeon who does the surgery often. After surgery, you will need to take thyroid hormone for the rest of your life.

Your healthcare provider will keep checking your thyroid levels with blood tests for several weeks after radiation or surgical treatment. It may take several weeks to find the right dosage of thyroid medicine to keep your hormone level normal. Then your thyroid levels will need to be checked just every few months. If your thyroid levels get too low, they can be easily treated with thyroid hormone medicine.

Sometimes thyroid disease causes eye problems. Your eyes may dry out easily and need drops to keep them moist. Rarely, swelling of the tissues around the eye can threaten your vision. The swelling can put pressure on the nerves and blood vessels around the eye and eye muscles. Sometimes steroid medicine is used for the swelling and other eye problems. Surgery may be needed to treat problems with the eye muscles and eyelids, as well as crowding in the eye socket from swelling.

A serious problem called thyroid storm can happen if you have too much thyroid hormone. Too much thyroid hormone causes severe restlessness, fever, confusion, sweating, and diarrhea. Your heart may beat very fast and your blood pressure can get very high. It can be a life-threatening emergency. The best way to prevent thyroid storm is to get your symptoms checked out early and under control. If you are having symptoms of thyroid storm, it's important to call 911 or have someone take you directly to the emergency room.

If you have hyperthyroidism and get pregnant, your condition should be followed closely by your healthcare provider. Most women with thyroid problems have few complications if their thyroid disorder is treated. If your thyroid hormone levels are not kept under control, they can cause problems for both you and baby. Very rarely medicines used to treat hyperthyroidism can affect a baby's thyroid function. Ultrasound can help see if your baby is overreacting to your thyroid problem or medicines you are taking. Make sure all of your healthcare providers know about your pregnancy and any medicines you are taking. This will help you plan the best management of your pregnancy.

How long will the effects last?

The effects of hyperthyroidism usually last as long as thyroid hormone levels are too high. Sometimes the disease gets better without treatment. However, sometimes it can cause heart failure and death if it is not treated.

Eye problems related to hyperthyroidism may continue even after the thyroid problem is treated. Sometimes treatment makes the eye problems worse.

Nonsmokers respond better to treatment of thyroid disease than smokers.

How can I take care of myself?

- Follow the full treatment prescribed by your healthcare provider.
- Do not stop or change your thyroid medicine without first asking your healthcare provider.

- Have regular checkups according to your provider's recommendations.
- Do not smoke. Smoking can worsen the eye problems that can happen with thyroid disease.
- If you are taking steroid medicine, take it exactly as your healthcare provider prescribes. Using a steroid for a long time can have serious side effects. Don't take more or less of the medicine than prescribed by your provider and don't take it longer than prescribed. Don't stop taking a steroid without your provider's approval. You may have to lower your dosage slowly before stopping it.
- Call your provider right away if you are taking thyroid medicine and:
 - Your legs and feet become red or swollen.
 - You have a fever.
 - You have a fast heart rate.
- Also call your provider if:
 - Your symptoms come back or get worse.
 - You have new symptoms that worry you.
- Call your eye doctor if you have any changes in your vision or new swelling around your eyes.

If you have a problem with your thyroid gland and are planning a pregnancy:

- Visit your healthcare provider before you try are pregnant to make sure that your thyroid problem is controlled. Good control of a thyroid problem before pregnancy may actually make it easier to get pregnant.
- Be sure to follow your provider's instructions carefully for taking medicine to control your thyroid hormone levels before and during pregnancy.

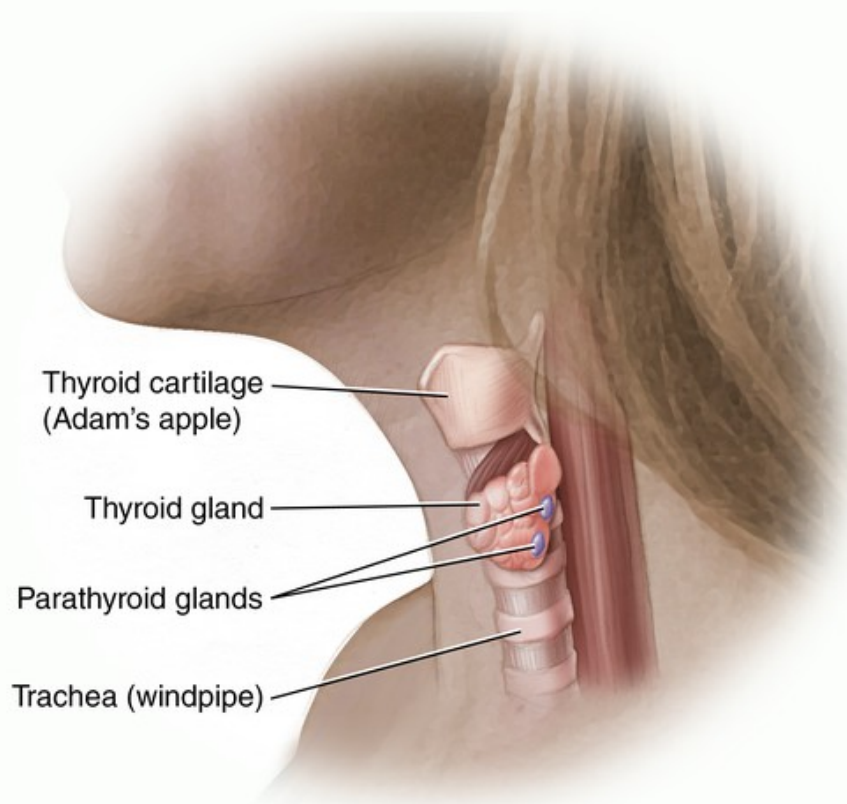
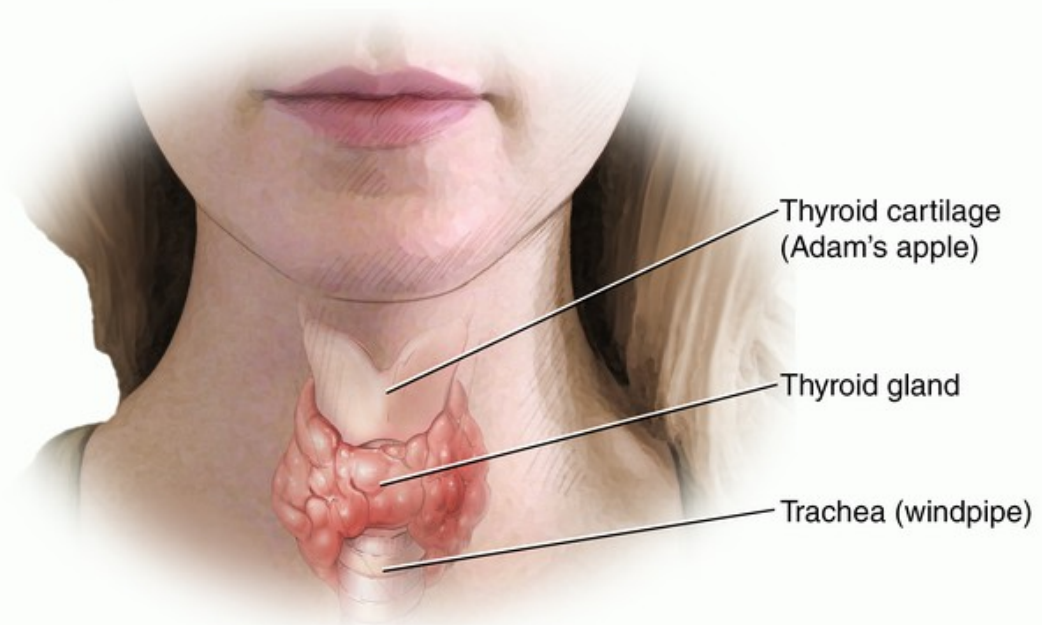
How can I help prevent hyperthyroidism?

Doctors don't know how to prevent hyperthyroidism.

Developed by RelayHealth.

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Thyroid and Parathyroid Glands



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