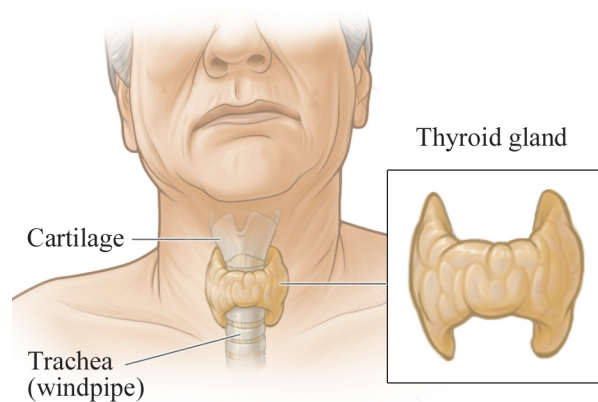


Thyroid Disease: How Your Thyroid Works



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The thyroid is a butterfly-shaped gland in the front of your neck. It controls your metabolism, which is how your body turns food into energy. It also affects your heart, muscles, bones, and cholesterol.

How does your thyroid work?

The thyroid gland uses iodine from food to make two hormones: triiodothyronine (T3) and thyroxine (T4). The pituitary gland, which is in the brain, helps control the thyroid gland. It releases thyroid-stimulating hormone (TSH).

The release of TSH into the bloodstream makes the thyroid gland release thyroid hormones. When the pituitary gland detects that thyroid hormone levels are too low, it releases more TSH. If the pituitary gland detects too much thyroid hormone, it releases less TSH.

If the thyroid does not produce enough hormones, it is called hypothyroidism. If the gland produces too many hormones, it is called hyperthyroidism.

Thyroid hormones affect every cell and all the organs of the body.

These hormones:

- Control the rate at which calories are burned. This affects weight loss or weight gain.
- Can slow down or speed up the heartbeat.
- Can raise or lower body temperature.
- Affect how fast food moves through the digestive tract.
- Control the way muscles contract.

What are the symptoms of thyroid problems?

Hypothyroidism can cause many symptoms. You may:

- Feel tired, weak, or depressed.
- Have dry skin and brittle nails.
- Not be able to stand the cold.
- Be constipated.
- Have memory problems or have trouble thinking clearly.
- Have heavy or irregular menstrual periods.

Hyperthyroidism can make a lot of things in your body speed up. You may:

- Lose weight quickly.
- Have a fast heartbeat.
- Sweat a lot.
- Feel nervous and moody.

If your thyroid problem is mild, you may have no symptoms. While your doctor is doing a test for another reason, he or she may discover that you have a thyroid problem.

How are thyroid problems diagnosed?

Blood tests are used to find hypothyroidism and hyperthyroidism. Your doctor may want to measure your amount of TSH or T4 (or both), and sometimes T3. You also may have a blood

test for certain antibodies. This can show if your body's immune system is attacking your thyroid gland.

In some cases, you may have other tests—such as an ultrasound or a radioactive scan—to look for problems with your thyroid.

How are thyroid problems treated?

If you have too little thyroid hormone, you can take the man-made thyroid replacement levothyroxine (such as Levothroid, Levoxyl, or Synthroid). After starting treatment, you will have regular visits with your doctor to make sure you have the right dose of medicine.

If you have too much thyroid hormone, you may take antithyroid medicine to lower your hormone level or radioactive iodine to destroy the thyroid gland. If you have a lot of symptoms, your doctor may recommend you take antithyroid medicine first to help you feel better. Then, you can decide whether to have radioactive iodine therapy.

During and after treatment, you will have regular blood tests to check your thyroid hormones to see if the treatment is working.

In rare cases, surgery may be done.

Questions to ask your doctor

Use the space below to list your questions or concerns. Take this sheet with you to your next doctor visit.

Questions about your thyroid: