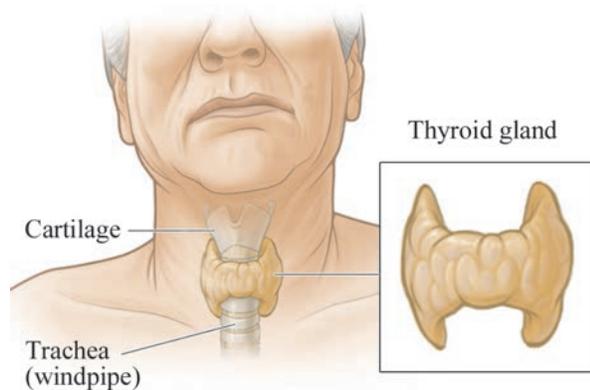


# Thyroid Disease: How Your Thyroid Works



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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. Thyroid 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.

