

FAQ: Hyperthyroidism

What is the thyroid gland?

The thyroid gland located in the neck produces thyroid hormones which help the body use energy, stay warm and keep the brain, heart, muscles, and other organs working normally.

What are the symptoms of hyperthyroidism?

Hyperthyroidism refers to any condition in which the body has too much thyroid hormone. Symptoms may include weight loss, nervousness, irritability, increased perspiration, a racing heart, hand tremors, anxiety, difficulty sleeping, increased bowel movements, fine brittle hair, and muscular weakness—especially in the upper arms and thighs. In Graves' disease, a bulging of one or both eyes may occur.

What causes hyperthyroidism?

The most common cause is Graves' disease (see *Graves' Disease* brochure). Another cause is one or more overactive nodules or lumps in the thyroid, a condition known as *toxic nodular* or *multinodular goiter*. Finally, you may temporarily have hyperthyroid symptoms if you have *thyroiditis*, which causes the gland to leak thyroid hormone, or if you take too much thyroid hormone in tablet form.

How is the diagnosis made?

A physical examination and laboratory tests that measure the amount of thyroid hormone (thyroxine, or T4, and triiodothyronine, or T3) and thyroid-stimulating hormone (TSH) in your blood are necessary. Your doctor may choose to obtain a picture of your thyroid (a *thyroid scan*). Measurement of antibodies in the blood that attack the thyroid (antithyroid antibodies) may help in diagnosing the cause of hyperthyroidism.

How is hyperthyroidism treated?

Therapy for hyperthyroidism is generally safe and effective, but no one treatment is best for all patients with hyperthyroidism.

- *Antithyroid drugs.* Methimazole (Tapazole®) or propylthiouracil (PTU) block the thyroid gland's ability to make new thyroid hormone. These drugs allow prompt control of hyperthyroidism and do not cause permanent damage to the thyroid gland. Allergic reactions occur in about 5% of patients. Rarely (1 in 500 patients), a serious reaction (agranulocytosis) may lower your resistance to infection. If you develop a fever or sore throat while on an antithyroid drug, you should immediately stop taking the drug and have a white blood cell count that day.

- *Radioactive iodine.* Radioiodine, which is administered by mouth, is quickly taken up by overactive thyroid cells and destroys them. The radioiodine that is not taken up by the thyroid cells disappears from the body within days. Radioiodine often takes several weeks to several months to control hyperthyroidism (during which time antithyroid drug treatment may be used to control hyperthyroid symptoms), and occasionally additional radioiodine treatments may be necessary. This is the most common therapy for hyperthyroidism in the United States.
- *Surgery.* Before surgery an antithyroid drug or a beta-blocking drug is taken to control your hyperthyroidism. Major complications of thyroid surgery occur in less than 1% of patients operated on by an experienced thyroid surgeon. During surgery, most of the thyroid gland is removed to control the hyperthyroidism. Damage to the parathyroid glands that control your body's calcium levels and damage to the nerves that control your vocal cords, which would cause you to have a hoarse voice, are rare.
- *Beta-blockers.* These drugs may be helpful in reducing symptoms of a racing heart, the shakes, and nervousness, even though they do not change the high levels of thyroid hormone in your blood.

Where can I find additional information?

Further details on this and other thyroid-related topics are available in the patient information section on the American Thyroid Association website at www.thyroid.org.

