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# GRAVES' DISEASE

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The thyroid is a butterfly-shaped gland located at the base of the front of the neck. It produces thyroid hormone, which controls your metabolism, temperature regulation, and keeps your muscles and organs working properly. Graves' disease causes the thyroid gland to become overactive. It is an autoimmune disease in which the body fights against itself and causes the thyroid gland to become overactive. It is more common in women, but can also occur in men.

## WHAT ARE THE SYMPTOMS OF GRAVES' DISEASE?

The symptoms of Graves' disease include:

- Racing heartbeat
- Anxiety
- Weight loss
- Tremors
- Feeling warm
- Difficulty sleeping
- Bulging eyes
- Eye redness
- Double vision, or decreased vision
- Thickening of the skin in front of the shins

A blood test is used to diagnose Graves' disease. A measurement of the thyroid stimulating hormone (TSH) is low in Graves' disease. The levels of thyroid hormone, such as T3 and T4, are high in Graves' disease. Measuring antibodies called TSI or TRAb also help confirm the diagnosis. Sometimes, a "radioactive iodine uptake study" is used to confirm the diagnosis of Graves' disease.

## WHAT CAUSES GRAVES' DISEASE?

Graves' disease is an autoimmune disorder in which the body produces inflammation of the thyroid gland causing it to be overactive. The specific cause is unknown but may occur at higher rates in certain families.

## WHAT ARE THE TREATMENT OPTIONS?

Treatment for Graves' disease includes daily medications, radioactive iodine, or thyroid surgery. Medications can be used for several months to try and control (but not cure) the hyperthyroidism. If the medications do not control the disease, surgery or radioactive iodine may be necessary. Radioactive iodine and surgery are used to manage the disease, but can cause the thyroid to be underactive and you must then take medication to replace the thyroid hormone.

Therapy depends on the presence of eye symptoms, the presence and size of thyroid nodules, and your preferences. Surgery is generally considered if the thyroid also has nodules, the gland is very large, the patient has eye disease (which may worsen if radioactive iodine is given), or if the patient wants to avoid radioactive iodine.

## WHAT QUESTIONS SHOULD I ASK MY DOCTOR?

1. Do I have thyroid nodules or a goiter? What's the difference, and how does that affect treatment?
2. Do you have expertise in thyroid surgery? Can you tell me about your training?
3. How effective are medications and what are the risks?