



WomensHealth.gov

1-800-994-9662

TDD: 1-888-220-5446

Graves' Disease

Q: What is Graves' disease?

A: Graves' Disease is a type of autoimmune disease that causes over-activity of the thyroid gland, causing hyperthyroidism. This over-activity is also sometimes called "toxic diffuse goiter." The thyroid gland helps set the rate of metabolism, which is the rate at which the body uses energy. When the thyroid is too active, it makes more thyroid hormones than the body needs. High levels of thyroid hormones can cause side effects such as weight loss, rapid heart rate and nervousness. This is an uncommon disease that affects 2 percent of all women at some time in their lives. Graves' Disease also tends to affect women between the ages of 20 and 40, although it occurs in infants, children, and the elderly.

Q: What is an autoimmune disease?

A: An autoimmune disease occurs when the body's immune system becomes misdirected and attacks the very organs, cells, or tissues that it is supposed to protect. About 75% of autoimmune diseases occur in women, most often during their childbearing years.

Q: What are the symptoms of Graves' Disease?

A: These are the most common symptoms of Graves' Disease and hyperthyroidism:

- trouble sleeping

- fatigue
- trouble getting pregnant
- frequent bowel movements
- irritability
- weight loss without dieting
- heat sensitivity
- increased sweating
- muscular weakness
- changes in vision or how your eyes look
- lighter menstrual flow
- rapid heart beat
- hand tremors

Graves' Disease is the only kind of hyperthyroidism that is associated with swelling of the tissue around the eyes and bulging of the eyes. And rare cases, patients will develop a lumpy reddish thickening of the skin in front of the shins called pretibial myxedema. This skin condition is usually painless. The symptoms of this disease can occur slowly or very suddenly and are sometimes confused with other medical problems. Women can also have Graves' Disease and have no visible symptoms at all.

Q: Does this disease run in families?

A: Graves' disease can be caused by a group of different factors that come together to cause thyroid problems, including heredity, your body's immune system, your age, sex hormones, and possibly stress.

You can inherit a greater likelihood to have hyperthyroidism, which means that you *may* develop Graves' disease at some time during your life.



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Q: How do I know if I have this disease?

A: Your doctor will do a simple blood test that will be able to tell if your body has the right amount of thyroid hormones. This test measures the thyroid hormones Free T₄ and TSH (thyroid stimulating hormone) to find out if the levels are in the normal range.

There are other tests that your doctor may choose to do, such as blood tests to find out if levels of the thyroid hormones Free T₄ and Free T₃ are in the normal range. Your doctor also may test how much iodine the thyroid gland can collect and take a scan, or picture, to see how the iodine moves throughout the gland. This test can be helpful in finding out the cause of and treatment for the disease.

Another test, called a Thyroid Stimulating Immunoglobulin (TSI), might be used if your doctor is unsure about whether you have the disease, or for patients who have a Graves' disease eye disorder but normal thyroid function. It can also be used to check a Graves' disease patient's response to treatment. TSI is also measured in pregnant women who have hyperthyroidism to diagnose Graves' disease and to assess the risk to the baby.

Q: What is the treatment for this disease?

A: There are three treatments for Graves' Disease:

- **Medicine.** There are some medicines called antithyroid drugs that can lower the amount of thyroid hormones made by the thyroid, causing it to make, normal levels. A doctor must give these medicines to

you. Some patients who take an acute thyroid drug for 1 to 2 years have a remission from Graves' disease; their thyroid function may remain normal even without medication.

- **Radioactive iodine.** The radioactive iodine damages thyroid cells, shrinking and eventually destroying the thyroid gland in order to reduce hormone levels. Like surgery, this condition usually leads to hypothyroidism, so that thyroid hormone supplement medication is needed for the rest of the patient's life.
- **Surgery.** All of the thyroid gland will be removed. In most cases, people who have surgery for Graves' Disease will develop an under-active thyroid (hypothyroidism, the opposite of hyperthyroidism), and will have to take thyroid replacement hormones for the rest of their lives.

After a diagnosis is made and a treatment is chosen, you should return to your doctor for regular follow-up visits every year to make sure that your thyroid levels are normal and for adjustments in your medicine dose if need be.

Q: What could happen if this disease is left untreated?

A: If left untreated, Graves' Disease can lead to heart problems and problems in pregnancy, and an increased risk of a miscarriage. Severe, untreated Graves' Disease can be fatal. Thyrotoxic storm is a rare life-threatening condition that develops in cases of untreated hyperthyroidism. It is usually brought on by an acute stress, such as trauma surgery or infection. Symptoms are severe, with a pounding heart, sweating, restlessness,



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shaking, diarrhea, change in consciousness, agitation and confusion.

Congestive heart failure can develop rapidly and lead to death.

Q: What happens if I have this disease and get pregnant?

A: It is important to get checked out by doctors more often if you are pregnant. You will need to see both your obste-

trician and an endocrinologist, who is a doctor that treats patients with hormone problems. Pregnancy may cause changes in hormones that affect the thyroid, and thyroid problems can affect a growing baby. As a result, the treatment needs of pregnant women often change, and an experienced doctor is needed to regulate your medication properly. ■



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For More Information

You can find out more information about Graves' Disease by contacting the National Women's Health Information Center (800-994-9662) or the following organizations:

Graves' Disease Foundation of America

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Fleming Island, FL 32006
Internet address: <http://www.ngdf.org>

The American Thyroid Association

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Thyroid Foundation of America, Inc.

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The Hormone Foundation

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National Graves' disease Foundation

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The Graves' Disease FAQ has been reviewed by Dr. Nancy Patterson, Executive Director, National Graves' Disease Foundation and author, *Graves' Disease, In Our Own Words*, and by Dr. David Cooper, Sinai Hospital of Baltimore, Division of Endocrinology.

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