

# Graves' Disease

Graves' disease is an autoimmune disease that damages the thyroid gland. Graves' disease affects more women than men. It is the most common cause of hyperthyroidism (overactive thyroid gland). Symptoms of Graves' disease may include bulging eyes, weight loss, and a fast metabolism. Hyperthyroidism due to Graves' disease is treatable with medicine.

## Q: Who gets Graves' disease?

**A:** Graves' disease is more common in women than in men. Women are most often affected between the ages of 30 and 60.

Your risk for Graves' disease is higher if you:

- Have a family history
- Have another autoimmune disease, such as rheumatoid arthritis, type 1 diabetes, pernicious anemia, or lupus.
- Experience severe emotional stress or trauma
- Recently had a baby. Your risk of developing Graves' disease is high in the year after giving birth. This suggests that pregnancy might trigger or reveal Graves' disease in some women.
- Have a history of infection with the virus that causes mononucleosis ("mono"; Epstein-Barr virus).
- Smoke. Smoking is also a leading risk factor for the eye problem seen in Graves' disease called Graves' ophthalmopathy.

## Q: What are the symptoms of Graves' disease?

**A:** Symptoms of Graves' disease include:

- Bulging, irritated eyes (called Graves' ophthalmopathy)
- Thickening and reddening of the skin, especially on the shins and upper feet
- Irritability or nervousness
- Tiredness or muscle weakness

- Heat sensitivity
- Trouble sleeping
- Shaky hands
- Rapid and irregular heartbeat
- Diarrhea
- Weight loss without dieting
- Goiter, which is an enlarged thyroid that can cause the neck to look swollen

## Q: What is Graves' ophthalmopathy?

**A:** Graves' disease can lead to an eye problem called Graves' ophthalmopathy. It affects up to half of people with Graves' disease.

Graves' ophthalmopathy happens when cells from your body's immune (defense) system attack the tissues around your eyes. The result is inflammation and swelling in the eye socket, causing the eyeball to bulge out. If left untreated, damage to the nerves in the eyes can also lead to blindness.

Graves' ophthalmopathy is treated with eye drops and eyeglasses, radiation therapy, or eye surgery. Your treatment will depend on how serious your eye problems are.

## Q: How does Graves' disease affect women?

**A:** Left untreated, Graves' disease can cause:

- **Problems with your menstrual period.** Too much thyroid hormone can cause irregular menstrual periods and make your periods lighter than normal.
- **Problems getting pregnant.** Irregular menstrual cycles can make it harder for women with Graves' disease to get pregnant. About half of women with Graves' disease have problems getting pregnant.
- **Problems during pregnancy.** Graves' disease can lead to preeclampsia, miscarriage, and problems with the

placenta. It can also cause problems for your unborn baby's development, including a fast heart rate, low birth weight, and birth defects.

- **Problems after pregnancy.** Graves' disease often gets better during the last three months of pregnancy, but it may get worse after delivery.
- **Thyroid storm.** This is a very rare, life-threatening condition caused by too much thyroid hormone. This suddenly increases your heart rate, blood pressure, and temperature to dangerously high levels.
- **Heart problems,** such as irregular heartbeat (arrhythmia), atrial fibrillation, and heart failure
- **Bone loss that can lead to osteoporosis**

### Q: How is Graves' disease diagnosed?

**A:** To diagnose Graves' disease, your doctor will do a physical exam and may do some tests including:

- **Thyroid function tests.** These tests check your blood for levels of the main thyroid hormone (T4) and thyroid-stimulating hormone (TSH). A high level of T4 plus a low level of TSH is a sign of an overactive thyroid gland.

- **Radioactive iodine uptake (RAIU) test.** This test tells how much iodine the thyroid gland uses to make thyroid hormone. Higher levels of iodine suggest Graves' disease.
- **Antibody tests.** These blood tests look for antibodies that suggest Graves' disease.

### Q: How is Graves' disease treated?

**A:** There are three main treatments for Graves' disease:

- **Antithyroid medicine.** These medicines keep the thyroid gland from making too much thyroid hormone. They are often given to patients before thyroid surgery or radioiodine therapy.
- **Radioactive iodine (RAI).** RAI is a type of iodine that destroys thyroid cells so that your thyroid gland cannot make as much thyroid hormone. This cures the overactive thyroid gland, but it can lead to underactive thyroid gland. If this happens, you will need to take thyroid hormone for the rest of your life.
- **Surgery to remove all or most of the thyroid.** As with RAI, surgery cures overactive thyroid but can lead to underactive thyroid.

## For more information...

For more information about Graves' disease, call the OWH Helpline at 1-800-994-9662 or contact the following organizations:

### National Endocrine and Metabolic Diseases Information Service, NIDDK, NIH, HHS

1-888-828-0904 • [www.nidDK.nih.gov/health-information/endocrine-diseases](http://www.nidDK.nih.gov/health-information/endocrine-diseases)

### American Autoimmune Related Diseases Association, Inc.

586-776-3900 • [www.aarda.org](http://www.aarda.org)

### American Thyroid Association

1-800-THYROID (849-7643) • [www.thyroid.org](http://www.thyroid.org)

### The Hormone Foundation

1-800-HORMONE (467-6663) • [www.hormone.org](http://www.hormone.org)

### The Office on Women's Health is grateful for the medical review in 2015 by:

- Ellen Leschek, M.D., Pediatric Endocrinologist, Program Director, Division of Diabetes, Endocrinology, and Metabolic Diseases, National Institute of Diabetes and Digestive and Kidney Diseases
- Niveditha Mohan, M.D., Internist, Assistant Professor, Arthritis and Autoimmunity Center, University of Pittsburgh Medical Center

All material contained on this page is free of copyright restrictions and may be copied, reproduced, or duplicated without permission of the Office on Women's Health in the U.S. Department of Health and Human Services. Citation of the source is appreciated.

Page last updated: November 28, 2017.

 [www.facebook.com/HHSOWH](http://www.facebook.com/HHSOWH)

 [www.twitter.com/WomensHealth](http://www.twitter.com/WomensHealth)

 [www.youtube.com/WomensHealthgov](http://www.youtube.com/WomensHealthgov)

[www.womenshealth.gov](http://www.womenshealth.gov) | 1-800-994-9662

