NATIONWIDE CHILDREN'S
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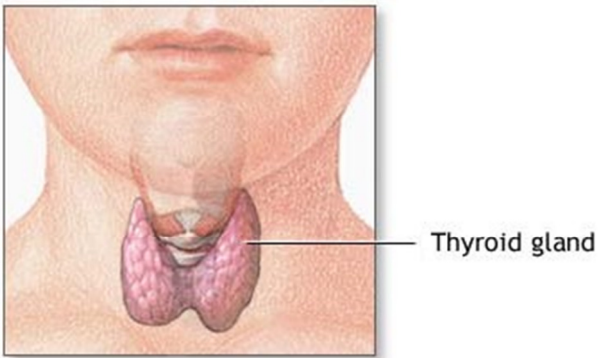
Helping Hand™

Graves' Disease

Graves' disease is the most common kind of hyperthyroidism (HI per thy ROID ism). It happens when a person's immune system acts against his or her thyroid gland by mistake. It makes too much of the hormone thyroxine (thy ROX in). The thyroid gland is in the neck (Picture 1).

Graves' disease can happen at any age in both males and females. It is more common in women and usually begins after age 20. It is easily treated.

Picture 1 Thyroid gland in the neck



Symptoms

Signs and symptoms of Graves' disease include:

- Fast or irregular heart beat
- High blood pressure
- Shakiness in the hands
- Increased energy
- Irritability
- Difficulty sleeping
- Tiredness
- Sensitivity to heat/cold
- Hair that breaks easily
- Change in periods
- Bulging eyes
- Difficulty swallowing or feeling like neck is swollen
- Weight loss even when eating normal amounts

Causes

Doctors are not sure what causes Graves' disease.
There are certain risk factors that may increase the chance that you will have it, such as:

- Family history of the disease
- Sex – women are more likely to have it
- Age – usually happens after age 20
- Smoking

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Complications

When the body makes too much thyroid hormone, other problems can happen, such as:

- Heart problems: fast heart rate, irregular heart rate, and congestive heart failure. Your doctor can treat these problems.
- Brittle bones: too much thyroid hormone affects your body's ability to get calcium into your bones.
- Thyrotoxic crisis: a sudden increase in the symptoms of hyperthyroidism, like fast heart rate and confusion. This rarely happens. Get medical care right away if it does.

Tests and Diagnosis

- Blood tests: to measure thyroid-stimulating hormone (TSH) and thyroxine (T4) levels
- Physical exam: to find out about your symptoms
- Scan: thyroid uptake scan to measure the level of radioactive iodine found in the thyroid gland. A high uptake means your thyroid gland is making too much thyroxine.

These tests help your doctor plan the best medical treatment.

Treatment

Treatment helps manage the symptoms of Graves' disease. It reduces the level of thyroxine hormone or blocks its action. Options are:

- Beta blockers: medicine to treat symptoms like fast heart rate, sweating, anxiety .
- Anti-thyroid medicines: drugs like methimazole to stop the thyroid from making too much thyroxine. Usually you will take this medicine for at least 2 years. This treatment can lead to remission, but hyperthyroidism can come back again.
- Radioactive iodine: when your take this, the iodine collects in the thyroid gland. The radioactivity destroys the overactive thyroid cells and eventually the thyroid gland. Your child will have to take thyroid medicine to replace the thyroid hormone.
- Surgery: to take out the thyroid gland. Your child will have to take thyroid medicine to replace the thyroid hormone.

Follow up Care

Your child will need ongoing care to make sure hormone levels stay in the normal range. He will need regular physical exams and blood work.