

THYROID DISEASE

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What is thyroid disease and whom does it affect?

What causes thyroid disease?

What are the symptoms of hypothyroidism and hyperthyroidism?



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Thyroid Disease

The thyroid is a small gland, shaped like a butterfly, that rests in the middle of the lower neck. Its primary function is to control the body's metabolism (rate at which cells perform duties essential to living). To control metabolism, the thyroid produces hormones, T4 and T3, which tell the body's cells how much energy to use.

A properly functioning thyroid will maintain the right amount of hormones needed to keep the body's metabolism functioning at a satisfactory rate. As the hormones are used, the thyroid creates replacements. The quantity of thyroid hormones in the bloodstream is monitored and controlled by the pituitary gland. When the pituitary gland, which is located in the center of the skull below the brain, senses either a lack of thyroid hormones or a high level of thyroid hormones, it will adjust its own hormone (TSH) and send it to the thyroid to tell it what to do.

What is thyroid disease and whom does it affect?

When the thyroid produces too much hormone, the body uses energy faster than it should. This condition is called hyperthyroidism. When the thyroid doesn't produce enough hormone, the body uses energy slower than it should. This condition is called hypothyroidism. There are many different reasons why either of these conditions might develop. Currently, about 20 million Americans have some form of thyroid disease. People of all ages and races can get thyroid disease. However, women are five to eight times more likely than men to have thyroid problems.

What causes thyroid disease?

There are several different causes of thyroid disease. The following conditions cause hypothyroidism:

- **Thyroiditis** is an inflammation of the thyroid gland. This can lower the amount of hormones produced.
- **Hashimoto's thyroiditis** is a painless disease of the immune system that is hereditary.
- **Postpartum thyroiditis** occurs in 5 percent to 9 percent of women after giving birth. It is usually a temporary condition.

- **Iodine deficiency** is a problem affecting approximately 100 million people around the world. Iodine is used by the thyroid to produce hormones. Although prevalent before the 1950s in the USA, iodine deficiency has been virtually wiped out by the use of iodized salt.
- **A non-functioning thyroid gland affects** one in 4,000 newborns. If the problem isn't corrected, the child will be physically and mentally retarded.

The following conditions cause hyperthyroidism:

- With Graves' disease, the entire thyroid gland might be overactive and produce too much hormone. This problem is also called diffuse toxic goiter (enlarged thyroid gland).
- Nodules might be overactive within the thyroid. A single nodule is called toxic autonomously functioning thyroid nodule, while several nodules are called a toxic multi-nodular goiter.
- Thyroiditis, a disorder that can be painful or painless, can also release hormones that were stored in the thyroid gland causing hyperthyroidism for a few weeks or months. The painless variety occurs most frequently in women after childbirth.
- Excessive iodine is found in a number of drugs such as Amiodarone, Lugol's solution (iodine), and some cough syrups, and might cause the thyroid to produce either too much or too little hormone in some individuals.

What are the symptoms of hypothyroidism and hyperthyroidism?

The following are symptoms for hypothyroidism:

- Fatigue
- Frequent, heavy menstrual periods
- Forgetfulness
- Weight gain
- Dry, coarse skin and hair
- Hoarse voice
- Intolerance to cold

The following are symptoms for hyperthyroidism:

- Irritability/ nervousness
- Muscle weakness/tremors
- Infrequent, scant menstrual periods
- Weight loss
- Sleep disturbances
- Enlarged thyroid gland
- Vision problems or eye irritation
- Heat sensitivity

How is thyroid disease diagnosed?

Thyroid disease can be difficult to diagnose because symptoms are easily confused with other conditions. Fortunately, there is a test, called the thyroid stimulating hormone (TSH) test, that can identify thyroid disorders even before the onset of symptoms. The Journal of the American Medical Association found that screening for mild thyroid failure in women and men over age 35 is as cost-effective as screening for more common problems such as high cholesterol or high blood pressure.

When thyroid disease is caught early, treatment can control the disorder even before the onset of symptoms.

How is thyroid disease treated?

The goal of treatment for any thyroid disorder is to restore normal blood levels of thyroid hormone.

Hypothyroidism is treated with a drug called levothyroxine. This is a synthetic hormone tablet that replaces missing thyroid hormone in the body. With careful monitoring, your doctor will adjust your dosage accordingly, and you'll soon be able to return to your normal lifestyle.

Hyperthyroidism, generally more difficult to treat, requires the normalization of thyroid hormone production. Treatment could involve drug therapy to block hormone production, radioactive iodine treatment that disables the thyroid, or even thyroid surgery to remove part or the entire gland.

The most popular treatment is radioactive iodine. This therapy often results in hypothyroidism, requiring the use of levothyroxine (synthetic replacement hormone) in order to restore normality.

Thyroid diseases are life-long conditions. With careful management, people with thyroid disease can live healthy, normal lives.

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