Hypothyroidism

The thyroid gland is in the front, lower part of your neck and makes thyroid hormone. Thyroid hormone helps to control metabolism, which is the process your body uses to turn food into energy. If your thyroid gland doesn't make enough thyroid hormone, you develop a condition called hypothyroidism (underactive thyroid).

Women are more likely to have hypothyroidism than men. It's more common as people get older and sometimes runs in families.

Symptoms

Most people with mild hypothyroidism don't have symptoms. If it's severe, you may have some of these symptoms:

- Fatigue or lethargy (feeling weak and not wanting to move around)
- Feeling cold
- Dry skin
- Hair loss
- Unexplained weight gain (usually due to fluid building up)
- Constipation
- Menstrual irregularities (typically heavier periods than usual)
- Depression

These symptoms also occur in other health conditions not related to the thyroid gland, so you may not have hypothyroidism. Also, if the hypothyroidism is mild, it's likely the symptoms aren't caused by hypothyroidism. In this case, you may have another health problem.

Causes

Hypothyroidism has several possible causes. Some of the most likely are:

- Hashimoto's disease. This is the most common cause in adults. It occurs when the immune system mistakenly attacks the thyroid gland.
- **Medications and surgery.** Some drugs can affect your thyroid gland. Examples include drugs for heart disease, cancer, or bipolar disease. Surgery to remove all or part of the thyroid gland can also affect your ability to produce enough thyroid hormone.
- **Hyperthyroidism treatments.** Some treatments for overactive thyroid conditions, called hyperthyroidism, can cause hypothyroidism.
- **Pituitary gland problems.** In rare cases, a problem with the pituitary gland (which regulates the release of thyroid-stimulating hormone) can cause hypothyroidism.

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Diagnosis

A **thyroid-stimulating hormone (TSH)** blood test is the standard test for diagnosing hypothyroidism. TSH is released by the pituitary gland to control thyroid activity. When the thyroid gland is underactive, the pituitary makes more TSH—resulting in a high value on the blood test. If your TSH is high, it's a sign you may have hypothyroidism.

Sometimes additional blood tests are also useful:

- **Thyroid antibodies.** The presence of thyroid antibodies is common and indicates possible autoimmune thyroid disease (Hashimoto's). However, antibodies are common even in people with normal thyroid gland function.
- **Thyroxine (T4).** T4 is the main form of thyroid hormone made by the thyroid. Low T4 levels may mean you have hypothyroidism. However, most people with mild hypothyroidism have normal levels. The TSH test is more accurate than T4.

A combination of these results and a physical exam may help us determine whether you have hypothyroidism.

Treatment

The recommended treatment for hypothyroidism is a daily hormone replacement pill of levothyroxine (T4). The prescribed amount is based on thyroid hormone levels, weight, age, and other medical conditions you may have.

If you're pregnant or thinking about becoming pregnant, you may need to take a higher level of thyroid hormone replacement. You'll likely need to increase your dose of T4 during pregnancy and can usually go back to a pre-pregnancy dose after delivery.

Take T4 on an empty stomach 30 to 60 minutes before eating or taking other medications. If you take calcium or iron tablets, these should be taken at least 4 hours before or after taking levothyroxine.

Thyroid replacement hormones are safe, and when taken as prescribed they're very effective for keeping the amount of thyroid hormone at a normal level.

Additional resources

For more health information, tools, classes, and other resources:

- Search kp.org/mydoctor
- Contact your local Health Education Department

This information is not intended to diagnose health problems or to take the place of medical advice or care you receive from your physician or other health care professional. If you have persistent health problems, or if you have additional questions, please consult with your doctor. If you have questions or need more information about your medication, please speak to your pharmacist.

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