



Education

Hypothyroidism

What is hypothyroidism?

Hypothyroidism is a condition in which the thyroid gland does not produce enough thyroid hormone. Too little hormone slows down chemical reactions in the body. This slowdown causes mental and physical changes.

The thyroid gland is located at the lower front of the neck. This gland takes iodine from the food you eat to make hormones called thyroxine (T4) and triiodothyronine (T3). The hormones control your metabolism (the process of turning the food you eat into energy). The thyroid gland is critical for maintaining body temperature and controlling heart rate, appetite, and digestive tract function. Too little hormone may cause you to gain weight. Also, your heartbeat slows down and your body temperature gets lower. Food moves through your intestines more slowly and your muscles contract more slowly.

How does it occur?

Causes of hypothyroidism include:

- Hashimoto's disease (thyroiditis): This condition is an inflammation of the thyroid gland. It is a disorder of your immune system (your body's protection against infection).
- Thyroid surgery for complete or partial removal of the thyroid gland
- Viruses: They can infect the thyroid gland and cause it to produce too little hormone. These infections do not usually cause permanent hypothyroidism.
- Radiation treatment for hyperthyroidism (an overactive thyroid gland): Radioactive iodine is commonly used to treat an overactive thyroid gland. Radioactivity often destroys the gland. When this happens, the body needs synthetic thyroid hormone. People who have had x-ray treatment for cancers of the head and neck may develop hypothyroidism if their thyroid was exposed to radiation during the cancer treatment.
- Iodine deficiency (rare): A lack of iodine in the diet is rare in the US because some foods, especially salt, contain added iodine.
- Medicines such as lithium, or too high a dosage of antithyroid medicine used to treat hyperthyroidism
- Problem with the pituitary gland (rare): The pituitary gland stimulates the thyroid gland to produce hormones. The pituitary may fail to stimulate the thyroid enough to meet your body's needs.
- Congenital hypothyroidism (rare): Some people are born without thyroid glands or with glands that cannot make thyroid hormone.

Anyone can have hypothyroidism, but it happens most often in women over age 40. Some thyroid problems are inherited.

What are the symptoms?

The gradual slowing of your body's processes can take months or even years, making it hard for you to recognize the disease.

Symptoms of hypothyroidism include:

- fatigue
 - depression
 - muscle weakness
 - constipation
 - weight gain
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- feeling cold a lot of the time
- heavy and prolonged menstrual periods
- coarse, dry hair
- premature graying of hair in young adults
- thick, dry skin
- swollen eyelids
- deep, hoarse voice
- thick tongue
- thickened facial features
- slowed heart rate
- decreased sexual interest
- loss of hearing
- numb and tingling hands.

A condition that develops after several years of untreated hypothyroidism is called myxedema. Myxedema can cause you to become cold, slow to talk and move, and possibly drowsy. You might even fall into a coma.

How is it diagnosed?

Your health care provider will ask about your symptoms and examine you. If your provider thinks that you may have hypothyroidism, you will have blood tests. The tests will measure the levels of thyroid hormone and your pituitary's thyroid-stimulating hormone (TSH). TSH causes your thyroid gland to make thyroid hormone.

How is it treated?

Your health care provider will prescribe synthetic thyroid hormone medicine. You will most likely need to take the medicine every day for the rest of your life.

Most people need only small doses to replace their gland's normal output. After starting treatment, your health care provider will repeat the blood tests to be sure you are taking enough thyroid hormone. It may take several weeks to find the right dosage for you.

If you have coronary artery disease or are at risk for it, your provider will prescribe a smaller dose of hormone tablets at first. Replacing thyroid hormone too quickly can worsen coronary artery disease and, in some cases, can prompt a heart attack. Women prone to osteoporosis may have greater bone loss if they take too much thyroid hormone. For this reason your thyroid hormone blood level will be checked periodically for the rest of your life to make sure it is in the correct, normal range.

How long will the effects last?

Usually hypothyroidism improves within a week after hormone therapy is begun. All symptoms go away within a few weeks. In most cases, however, you must continue this treatment for the rest of your life.

Mild hypothyroidism may cause no symptoms. If the disease progresses, however, it can become disabling over a long time if it is not treated. Untreated hypothyroidism may cause the following problems:

- enlargement of the heart and heart failure (rare)
- slowing of mental processes
- loss of consciousness.

If the cause of hypothyroidism is thyroiditis and it is not treated, your thyroid gland may swell. This swelling, called a goiter, may cause a big bulge in your neck.

How can I take care of myself?

Many people with hypothyroidism, especially older adults, don't seek medical treatment because they don't know they have a problem. They may accept their symptoms of fatigue, muscle weakness, dry skin, depression, feeling cold, and constipation as signs of aging. If you notice some of the symptoms of hypothyroidism, see your health care provider.

When you have hypothyroidism, be sure to:

- Follow your provider's instructions for taking your medicine.
 - Get your thyroid hormone level checked when your provider suggests.
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- Keep your follow-up appointments.

What can be done to help prevent hypothyroidism?

Except in the case when it is caused by a lack of iodine in the diet, hypothyroidism cannot be prevented.

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