

Hypothyroidism

The **thyroid gland** is a small butterfly-shaped structure located in the front of the neck. **Hypothyroidism** (low thyroid function) occurs when the thyroid gland does not produce enough of a substance called **thyroid hormone**, which helps to regulate the body's metabolism. Hypothyroidism develops in about 5% of the population in the United States and is especially common in women older than 60 years. The December 10, 2003, issue of *JAMA* includes an article about treating hypothyroidism.

CAUSES OF HYPOTHYROIDISM

- **Hashimoto's thyroiditis** is the most common cause. In this condition, the body's immune system attacks the thyroid gland and causes the production of thyroid hormone to decrease.
- Treatments for certain thyroid diseases can damage the thyroid gland, especially **radioactive iodine** that is often used to treat an overactive thyroid (**hyperthyroidism**). Surgery to remove most or all of the gland, usually done when there is a thyroid tumor, will also cause hypothyroidism.
- Certain drugs can cause hypothyroidism, particularly **lithium** and the heart medication **amiodarone**.
- Sometimes the thyroid gland does not produce enough thyroid hormone because the **pituitary gland** near the brain is not functioning properly. The pituitary gland signals the thyroid gland to produce thyroid hormone through the production of **thyroid-stimulating hormone** or **TSH**.

SYMPTOMS OF HYPOTHYROIDISM

- Weight gain (usually no more than 10 to 15 pounds) and difficulty losing weight
- Cold intolerance
- Dry hair and skin
- Decreased sex drive
- Fatigue
- Weakness
- Muscle cramps
- Depression

Patients with mild hypothyroidism may not have any symptoms.

In some people, the thyroid gland may enlarge in an effort to produce the thyroid hormone that the body needs and become visible in the neck, forming what is known as a **goiter**.

DIAGNOSIS

In most cases, hypothyroidism is easily diagnosed with a blood test that measures levels of TSH and thyroid hormone in the blood. An **endocrinologist** (a doctor who specializes in glands and hormones) may be helpful in evaluating the cause and determining treatment options.

TREATMENT

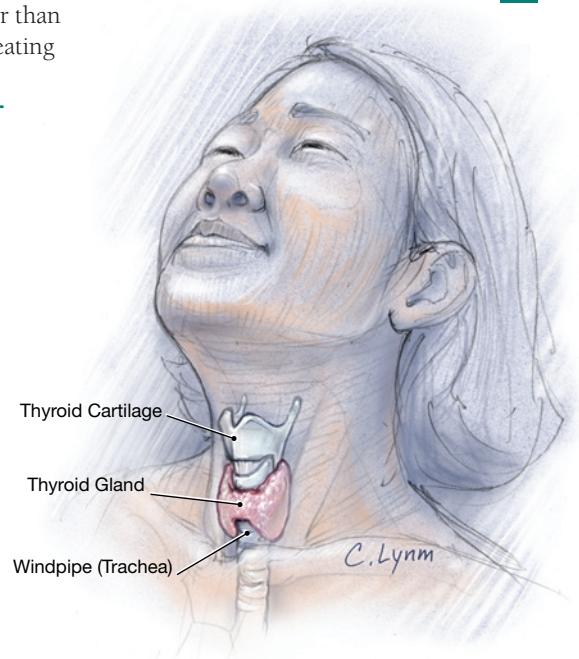
Hypothyroidism is usually easy to treat with a once-a-day pill containing synthetic thyroid hormone. However, blood tests and several visits with a physician may be needed to determine the correct dosage. The benefits of treatment may not be apparent for a month or longer.

Sharon Parmet, MS, Writer

Cassio Lynn, MA, Illustrator

Richard M. Glass, MD, Editor

The JAMA Patient Page is a public service of *JAMA*. The information and recommendations appearing on this page are appropriate in most instances, but they are not a substitute for medical diagnosis. For specific information concerning your personal medical condition, *JAMA* suggests that you consult your physician. This page may be photocopied noncommercially by physicians and other health care professionals to share with patients. Any other print or online reproduction is subject to AMA approval. To purchase bulk reprints, call 718/946-7424.



FOR MORE INFORMATION

- American Thyroid Association
800/THYROID (849-7643)
www.thyroid.org
- Thyroid Foundation of America
800/832-8321
www.allthyroid.org

INFORM YOURSELF

To find this and other JAMA Patient Pages, go to the Patient Page link on *JAMA*'s Web site at www.jama.com.

Sources: American Thyroid Association, National Institute of Diabetes & Digestive & Kidney Diseases, American Foundation of Thyroid Patients, Thyroid Foundation of America

