The lowdown on thyroid slowdown

Hypothyroidism can cause a host of health problems. Fortunately, the condition can be easily diagnosed and treated.

Midlife can bring subtle changes in our skin, hair, energy, weight, and even mental outlook. Before writing them off as products of aging, it’s a good idea to make sure they’re not the result of an underactive thyroid. This tiny butterfly-shaped gland influences virtually every organ system in the body. The hormones it secretes into the bloodstream play a vital role in regulating metabolism—the rate at which our bodies convert food and oxygen to energy. Low thyroid hormone production, or hypothyroidism, causes a range of symptoms—fatigue, constipation, dry skin and brittle nails, aches and pains, and feeling down—that you might easily attribute to other health problems.

Moreover, hypothyroidism is especially common in women. Between ages 35 and 65, about 13% of us will have it, and the proportion rises to 20% among those over 65. Because the link between symptoms and thyroid disease isn’t always obvious, especially in older people, many women won’t know they have it—and won’t be treated for it.

Untreated hypothyroidism can increase your risk for high cholesterol, high blood pressure, and heart disease. That’s why it’s important to keep an eye out for the symptoms and have your thyroid function checked. Hypothyroidism can be diagnosed with a blood test and treated with a pill.

Symptoms

The symptoms of hypothyroidism can differ from person to person. In some women, the onset is so gradual that it’s hardly noticeable; in others, symptoms come on abruptly over the course of a few weeks or months. The condition is mild in some women and severe in others. In general, the lower thyroid hormone levels are, the more pronounced and severe the symptoms.

Characteristic signs of hypothyroidism include:

- **Fatigue.** Low thyroid function can result in less energy.

- **Cold intolerance.** Slowed-down cells burn less energy, so the body produces less heat. You may feel chilly even when others around you are comfortable.

- **Appetite loss, weight gain.** With lower energy needs, you require fewer calories, so your appetite declines. Yet, you may gain a few pounds because your body converts fewer calories into energy, leaving more to be stored as fat.

- **Cardiovascular effects.** Low levels of thyroid hormone can lead to high blood pressure, elevated levels of total and LDL cholesterol, and increased homocysteine (a risk factor for heart disease). The heart’s pumping ability may slow, reducing blood flow to the skin, kidneys, brain, and other vital tissues, and increasing the risk of congestive heart failure, especially in older women.

- **Mental effects.** Hypothyroidism and depression share many of the same symptoms, including difficulty in concentrating, memory problems, and loss of interest in things that are normally important to you. They call for different treatments, so proper diagnosis is important.

- **Other signs and symptoms.** Slowed metabolism reduces sweating, the skin’s natural moisturizer, so the skin may become dry and flaky and nails brittle. Hair may thin or become coarse. Digestive processes slow, causing constipation. Speech and movement may also slow down. In younger women, periods may become heavier and more frequent, or they may stop; infertility is sometimes a problem. Muscle aches and pain around the joints, including carpal tunnel syndrome, are common. Older women may have balance problems.
Causes of permanent hypothyroidism

Permanent hypothyroidism can be successfully treated, though not cured. These are the main causes:

- **Hashimoto's thyroiditis.** This disease causes most hypothyroidism. The immune system makes antibodies that attack the thyroid gland, which may enlarge (producing a goiter) or shrink in response and lose its ability to produce adequate thyroid hormone.

  Hashimoto's thyroiditis tends to run in families and is much more common in women than in men, particularly as they get older. The condition is also associated with other autoimmune diseases, including type 1 diabetes, Addison's disease, rheumatoid arthritis, pernicious anemia, and even prematurely gray hair. In people with a genetic susceptibility, the onset of Hashimoto's thyroiditis can be triggered by factors such as high iodine intake, pregnancy, or cigarette smoking.

- **Surgery.** Surgical removal of all or part of the thyroid gland is sometimes necessary in treating thyroid cancer, nodules, goiter, or an overactive thyroid. But removing the entire gland causes permanent hypothyroidism, and thyroid hormone replacement is required. If the gland is partially removed, it may or may not be able to make sufficient thyroid hormone.

- **Radiation treatment or exposure.** Radioactive iodine taken to treat an overactive thyroid gland can damage the gland, causing permanent hypothyroidism. Radiation treatment for Hodgkin's disease, lymphoma, and cancers of the head and neck may have the same effect. Radiation (and surgery) can also damage the pituitary gland, a key player in the production of thyroid hormones.

Temporary hypothyroidism

Inflammation of the thyroid gland (thyroiditis) may occur after a viral infection, pregnancy (postpartum thyroiditis), or an autoimmune attack. Sometimes an episode of temporary thyroiditis will cause a bout of overactive thyroid (hyperthyroidism), as the inflamed gland releases too much thyroid hormone, followed by a period of hypothyroidism. In some people, the hypothyroidism becomes permanent.

Some medications can suppress thyroid hormone production. These include the heart arrhythmia drug amiodarone (Cordarone); the psychiatric medication lithium; interferon alpha, which is used to treat hepatitis C and certain types of leukemia and other cancers; and the cancer drug interleukin-2. Drugs taken to treat an overactive thyroid—methimazole (Tapazole, Thiamazole) and propylthiouracil (PTU)—may overcorrect the problem, converting an overactive thyroid into an underactive one.

Diagnosing hypothyroidism

If you have any symptoms, see your clinician for a physical exam. You'll be checked for signs of hypothyroidism, such as an enlarged thyroid gland, dry skin, hair loss, weight gain, and elevated cholesterol levels. Your clinician may test your blood for levels of thyroid-stimulating hormone (TSH)—the single best screening test for thyroid disease—as well as the thyroid hormone thyroxine (T4). You'll most likely get one of the following results:

- **Normal.** If your TSH is between 0.45 and 4.5 mU/L, you have normal thyroid function and do not need treatment.

- **Subclinical hypothyroidism.** If your TSH is elevated (above 4.5 mU/L) and the amount of available (free) T4 is normal (0.8–2.0 ng/dL), you have subclinical hypothyroidism. There's no agreed-upon approach to managing this condition. The symptoms may or may not be due to borderline thyroid function, and not everyone who does have subclinical disease will progress to full-fledged, or primary, hypothyroidism. Most physicians decide what to do based on a woman's symptoms and family history. This may involve a trial of thyroid medication to see if you feel better.

- **Primary hypothyroidism.** If your TSH is high and your T4 low, you have an underactive thyroid, which should be treated.

Treating low thyroid

Hypothyroidism is usually treated with a daily dose of synthetic T4 (levothyroxine sodium), in pill form. Levothyroxine works exactly like your own body's thyroid hormone. It’s available in the generic form and under such brand names as Euthyrox, Levothroid, Levoxyl, and Synthroid. Although all brands contain the same synthetic T4, their inactive ingredients can vary, possibly affecting absorption, so it’s best to stick with one brand. Also, if you’re prescribed a particular brand and the pharmacy switches to a generic version, let your physician know. If your hypothyroidism is permanent, you’ll need to take synthetic T4 for the rest of your life. Some patients also require a small dose of T3 (Cytomel).

The goal of drug treatment is to lower your TSH to about the midpoint of normal range and maintain it at that level. Typically, you’ll start with a relatively low dose and have your TSH checked six to eight weeks later. If necessary, your physician will adjust the dose, repeating this process until your TSH is in the normal range. Physicians must be careful not to give you too much because excessive doses can stress the heart and increase your risk for osteoporosis by accelerating bone turnover. Once the right dose is established, your TSH and possibly T4 levels will be checked every six months to a year.

Thyroid hormone is best absorbed on an empty stomach. Don't take antacids or supplemental iron at the same time because they can interfere with thyroid hormone absorption. (For a more complete list of drug interactions, visit www.health.harvard.edu/womenextra.) Although certain factors like pregnancy or other medications affect your need for thyroid hormone, the dose usually remains fairly stable over time.

Most people who take enough synthetic T4 to normalize TSH levels will find that their symptoms go away.▼
MEDICAL DISCLAIMER

The information contained in this online site is intended to provide accurate and helpful health information for the general public. It is made available with the understanding that the author and publisher are not engaged in rendering medical, health, psychological, or any other kind of personal professional services on this site. The information should not be considered complete and does not cover all diseases, ailments, physical conditions or their treatment. It should not be used in place of a call or visit to a medical, health or other competent professional, who should be consulted before adopting any of the suggestions in this site or drawing inferences from it.

The information about drugs contained on this site is general in nature. It does not cover all possible uses, actions, precautions, side effects, or interactions of the medicines mentioned, nor is the information intended as medical advice for individual problems or for making an evaluation as to the risks and benefits of taking a particular drug.

The operator(s) of this site and the publisher specifically disclaim all responsibility for any liability, loss or risk, personal or otherwise, which is incurred as a consequence, directly or indirectly, of the use and application of any of the material on this site.