

A close-up portrait of a middle-aged woman with short, layered blonde hair and bangs. She has a warm, friendly smile, showing her teeth. Her right hand is resting under her chin, with her fingers curled. She is wearing a dark grey or charcoal-colored cowl-neck sweater. The background is a bright, out-of-focus indoor space with white walls and a hint of a doorway. A dark purple horizontal band is overlaid on the lower left side of the image, containing the title text.

Understanding and managing
hypothyroidism

This brochure will help you better understand hypothyroidism, its causes, and its signs and symptoms to help you have a conversation with your doctor. You will also learn tips to help you manage your hypothyroidism.

Quick facts about hypothyroidism

Hypothyroidism occurs when the thyroid becomes damaged or inflamed, making it unable to produce enough of the hormone thyroxine. This is the opposite of hyperthyroidism, in which the body produces too much thyroxine.

Your chances of developing hypothyroidism increase as you age. It is more common in the elderly, and more common in women than in men.¹ While it's difficult to determine the exact incidence of hypothyroidism during pregnancy, recent reports estimate that about 1%-3% of pregnant women develop some degree of hypothyroidism.²

What can cause hypothyroidism?

Hashimoto's disease is the number one cause of hypothyroidism. Hashimoto's disease is a chronic autoimmune disease that causes the thyroid to become inflamed and unable to produce enough thyroid hormones.³

Other causes of hypothyroidism include³:

- **Surgical removal of the thyroid gland.** In some cases, like with thyroid cancer, the thyroid gland may need to be partially or entirely removed. This can result in hypothyroidism.
- **Radiation therapy for head and neck disease.** This can cause the thyroid to be unable to produce enough—or any—thyroid hormones, resulting in hypothyroidism.
- **Thyroiditis during or after pregnancy.** Thyroiditis related to pregnancy is an autoimmune disorder that can cause the thyroid to become damaged and lead to hypothyroidism. Proper treatment is needed to maintain the health of the mother and fetus.
- **Certain medications.** Sulfonamides, lithium, amiodarone and other medications can interfere with the thyroid's ability to produce hormones.
- **Pituitary gland problems.** This can interfere with the signal needed to produce the thyroid hormone thyroxine, causing hypothyroidism.

Other things that may cause hypothyroidism include low levels of iodine in the diet and having an underdeveloped or absent thyroid at birth.

Signs and symptoms of hypothyroidism

Symptoms of hypothyroidism can vary from person to person, and some people might not experience any signs or symptoms.

Some of the most common signs and symptoms of hypothyroidism are³:

- Depression
- Inability to concentrate
- Puffy face
- Loss of hair, or hair becoming coarse
- Voice becoming hoarse
- Muscular pain
- Brittle nails
- Feeling cold all over
- Abnormal cholesterol levels
- Fatigue

- Mental impairment
- Goiter
- Slow heartbeat
- Dry or yellow skin
- Infertility
- Irregular or heavy menstrual cycles
- Constipation
- Delayed reflexes
- Weight gain from fluid retention

Notify your healthcare provider right away if you are experiencing any of these symptoms. With an examination, he or she can often detect other symptoms that you may not be noticing. If you suspect you may have hypothyroidism, it's important to get a proper diagnosis as soon as possible.

How is hypothyroidism diagnosed?

Tell your healthcare provider about any symptoms you've been experiencing and if you have a family history of hypothyroidism. Your healthcare provider will use this information, plus the results of a thyroid-stimulating hormone (TSH) test, to determine if you have hypothyroidism.

TSH is produced by the pituitary, a small gland in your brain. TSH is a hormone your body naturally produces if it senses that your thyroid is not releasing enough thyroxine. A healthy thyroid receives the message and responds by producing more thyroxine. This helps to keep your hormone levels within a normal range. A TSH test can help determine if your thyroid is underperforming, and if you may have hypothyroidism. It is recognized as the most reliable test of its kind.³

Depending on the ratio of TSH to thyroxine in your body, hypothyroidism can be diagnosed in two different severities, mild or overt.

- **Mild hypothyroidism** is when your TSH levels are elevated, but your thyroid is able to compensate. It just works harder than normal to produce more thyroxine.³
- **Overt hypothyroidism** is when your body is not able to produce enough thyroxine. This means your TSH levels continue to rise while your thyroxine levels fall below normal range.³

If you are diagnosed with hypothyroidism, ensuring proper management is important.

Treating hypothyroidism

The good news is, hypothyroidism can be effectively managed and treated. Your healthcare provider may prescribe a medication that replaces the thyroid hormone your body needs but is not producing. Generally, thyroid replacement therapy is to be taken for life.

It may take time to find the medication dosage that is right for you. Everyone is different, so some people need more thyroxine replacement than others. Factors like age, body weight, other medications, and whether or not you have heart disease can also affect your dosage amount. Further, hypothyroidism medications are narrow therapeutic index drugs, which means that if your dose is off by even a little bit, it can change your TSH level and possibly cause symptoms.

Once on treatment, it is important to take your medication consistently. Your healthcare provider will carefully monitor your TSH levels regularly. Over time, your treatment strength may need to be adjusted.³

Keep in mind that it can take time for symptoms to improve.

5 tips for taking your medication

- 1. Make your medication part of your daily routine.** Thyroid replacement medication must be taken at the same time every day, exactly as your doctor prescribed. By associating your pill with a part of your everyday routine, such as making morning coffee or walking the dog, you are more likely to remember to take it on time.
- 2. Refill your prescription early so you don't run out.** Plan ahead to ensure you don't miss a dose. Missing doses can cause changes in your thyroxine level.
- 3. Continue to take your medication as your doctor prescribed, even if your symptoms go away.** Unless explicitly instructed by your doctor, it is important to consistently take your medicine as your doctor prescribes.
- 4. Notify your healthcare provider if you start or stop any other medications.** Some thyroid hormone replacement treatments can interact with other drugs. Your doctor should always be informed if there is a change in any other medications you may be taking. This includes any over-the-counter medications or vitamin supplements.
- 5. Check your pills at the pharmacy.** Always check your pills to be sure they are what your doctor prescribed.

The bottom line

Hypothyroidism can often be managed with one pill a day and regular visits to your doctor.

References: 1. Vandenpump MPJ. The epidemiology of thyroid disease. *Br Med Bull.* 2011;94:39-51. 2. DeGroot L, Abalovich M, Alexander EK, et al. Management of thyroid dysfunction during pregnancy and postpartum: An Endocrine Society clinical practice guideline. *J Clin Endocrinol Metab.* 2012;97:2543-2565. 3. Baskin HJ, Cobin RH, Duick DS, et al. American Association of Clinical Endocrinologists medical guidelines for clinical practice for the evaluation and treatment of hyperthyroidism and hypothyroidism. *Endocr Pract.* 2002;8:458-467.