

Hashimoto thyroiditis

A plain-English guide for you and your family

WHAT IS HAPPENING

Your thyroid is a small butterfly-shaped gland in the front of your neck. Its job is to make thyroid hormone—mostly a type called T4 and a little T3—that travels in your blood and tells every cell in your body how fast to burn energy. Think of it like the gas pedal for your body's engine. A small boss gland in your brain, the pituitary, watches your blood and sends out TSH (thyroid stimulating hormone) when it sees thyroid hormone getting too low, telling the thyroid to make more. In Hashimoto thyroiditis, your immune system—which is supposed to fight germs—makes a mistake and starts attacking a protein in your thyroid called thyroid peroxidase, or TPO. TPO is the tool the thyroid uses to build thyroid hormone. Over months and years, this attack damages the thyroid and it makes less and less hormone. When hormone drops, your whole body slows down: you feel exhausted, you gain weight even though you are eating the same, you feel cold when others feel fine, your bowels slow so you get constipated, your skin gets dry, your hair thins, and if you have periods they may get heavier or irregular. Your brain may feel foggy and your mood may sink. None of these problems are separate diseases—they all come from one thing: not enough thyroid hormone reaching your cells. The good news is we can replace the missing hormone with a daily pill, and most people feel back to normal.

What you might feel

- Tired all the time, even after sleeping
- Weight gain without eating more
- Feeling cold when others feel fine
- Dry skin and hair; hair falls out more
- Constipation (hard to poop)
- Goiter (a swelling in the front of the neck)
- Trouble thinking clearly or remembering things
- Heavy or irregular periods
- Muscle aches and joint pain
- Very high TSH (blood test) and low free T4

Call the doctor right away if...

- Sudden, severe swelling in the neck that makes it hard to breathe or swallow (could mean bleeding into the thyroid or a dangerous infection)
- Heart rate under 50 or trouble staying awake, feeling very confused, or body temperature under 95°F (signs of myxedema coma, a life-threatening shutdown from very low thyroid hormone)
- A hard, fixed lump in the thyroid that doesn't move (raises concern for thyroid cancer, which is rare but needs urgent check)

What the care team will do

- Check vital signs including temperature and watch for a slow heart rate (bradycardia) (slow heart rate below 60) or hypothermia (body temperature below 95 degrees)
- Assess mental status and level of alertness at every shift, noting any confusion or excessive sleepiness
- Teach patient to take levothyroxine on empty stomach 30 to 60 minutes before breakfast with water only, and avoid calcium or iron supplements within 4 hours
- Monitor TSH (thyroid stimulating hormone) and free T4 (active thyroid hormone) levels 6 to 8 weeks after starting medicine or changing dose
- Educate patient that thyroid replacement is lifelong and stopping medicine causes symptoms to return in 4 to 6 weeks
- Assess for signs of overtreatment including tremor, anxiety, palpitations (feeling your heartbeat), heat intolerance, or diarrhea
- Screen for other autoimmune conditions by asking about joint pain, rashes, belly symptoms, and checking blood sugar if not done recently
- In elderly patients or those with heart disease, verify the starting dose is low (12.5 to 25 micrograms daily) and increases happen slowly every 6 to 8 weeks

Medicines you may be given — and why

Levothyroxine

Levothyroxine is a man-made copy of thyroxine (T4), the main hormone your thyroid normally makes. When Hashimoto thyroiditis damages the thyroid so it cannot make enough hormone, levothyroxine steps in to replace what is missing. Your body converts it into the active form (T3) that every cell uses to control how fast it burns energy. This keeps your metabolism, heart rate, body temperature, and energy steady.

Where this information comes from

- American Thyroid Association (ATA) Guidelines for Hypothyroidism 2014
- Endocrine Society Clinical Practice Guideline on Hypothyroidism 2012
- UpToDate evidence summary on Hashimoto thyroiditis
- Cochrane systematic reviews on thyroid disease

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