



Low Testosterone & Men's Health

WHAT IS THE ROLE OF TESTOSTERONE IN MEN'S HEALTH?

Testosterone is the most important sex hormone that men have. It is responsible for the typical male characteristics, such as facial, pubic, and body hair as well as muscle. This hormone also helps maintain sex drive, sperm production, and bone health. The brain and pituitary gland (a small gland at the base of the brain) control the production of testosterone by the testes.

In the short term, low testosterone (also called hypogonadism) can cause

- A drop in sex drive
- Poor erections
- Low sperm count
- Enlarged breasts

Over time, low testosterone may cause a man to lose body hair, muscle bulk, and strength and to gain body fat. Chronic (long-term) low testosterone may also cause weak bones (osteoporosis), mood changes, less energy, and smaller testes. Signs and symptoms (what you see and feel) vary from person to person.

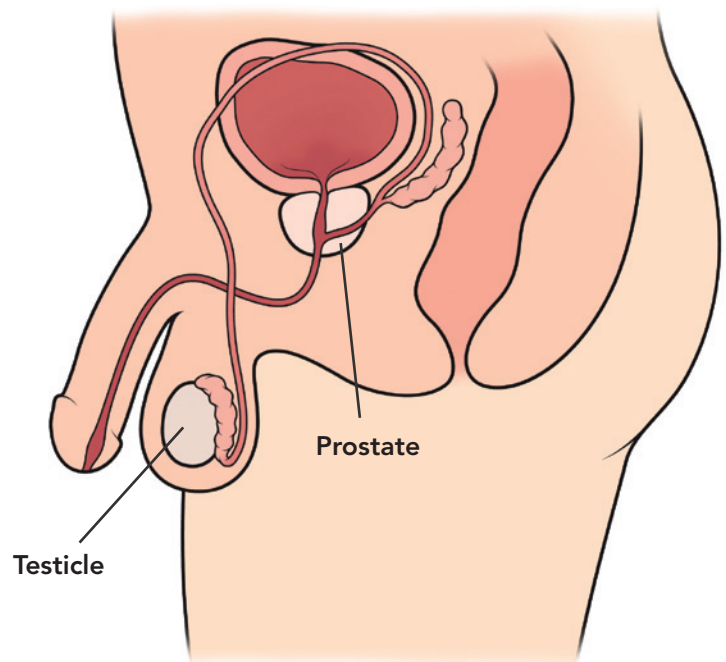
DID YOU KNOW?

**Low testosterone is common in older men.
In many cases, the cause is not known.**

WHAT CAUSES LOW TESTOSTERONE?

Low testosterone can result from

- Testicular injury (trauma, castration) or infection
- Radiation or chemotherapy treatment for cancer
- Some medications, such as opiate painkillers
- Hormone disorders (pituitary tumors or diseases, high levels of prolactin)
- Chronic diseases, such as liver and kidney disease, obesity, type 2 diabetes, and HIV/AIDS
- A genetic condition (Klinefelter syndrome, hemochromatosis, Kallmann syndrome, Prader-Willi syndrome, myotonic dystrophy)



HOW IS LOW TESTOSTERONE DIAGNOSED?

During a physical exam, your doctor will examine your body hair, size of your breasts and penis, and the size and consistency of the testes and scrotum. Your doctor may check for loss of side vision, which could indicate a pituitary tumor, a rare cause of low testosterone.

Your doctor will also use blood tests to see if your total testosterone level is low. The normal range is generally 300 to 1,000 ng/dL, but this depends on the lab that conducts the test. To get a diagnosis of low testosterone, you may need more than one early morning (7–10 AM) blood test and, sometimes, tests of pituitary gland hormones.

If you have symptoms of low testosterone, your doctor may suggest that you talk with an endocrinologist. This expert in hormones can help find the cause. Be open with your doctor about your medical history, all prescription and nonprescription drugs you are now taking, sexual problems, and any major changes in your life.

HOW IS LOW TESTOSTERONE TREATED?

Testosterone replacement therapy can improve sexual interest, erections, mood and energy, body hair growth, bone density, and muscle mass. There are several ways to replace testosterone:

- Gel or patches that you put on your skin
- Injections (shots)
- Tablets that stick to the gums
- Pellets inserted under the skin or pills (in some countries outside the United States)

The best method will depend on your preference and tolerance, and the cost.

There are risks with long-term use of testosterone. The most serious possible risk is prostate cancer. African American men, men over 40 years of age who have close relatives with prostate cancer, and all men over 50 years of age need monitoring for prostate cancer during testosterone treatment. Men with known or suspected prostate cancer, or with breast cancer, should not receive testosterone treatment.

Other possible risks of testosterone treatment include

- A high red blood cell count
- Acne
- Breast enlargement
- An increase in prostate enlargement
- Sleep apnea—the occasional stopping of breathing during sleep (rarely)
- Fluid buildup (edema) in ankles, feet and legs (rarely)

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The Hormone Health Network offers free, online resources based on the most advanced clinical and scientific knowledge from The Endocrine Society (www.endo-society.org). The Network's goal is to move patients from educated to engaged, from informed to active partners in their health care. This fact sheet is also available in Spanish at www.hormone.org/Spanish.

Low Testosterone and Men's Health Fact Sheet

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Questions to ask your doctor

- What is the cause of my low testosterone?
- Is testosterone replacement an option for me?
- When should I get my testosterone level retested?
- Should I see an endocrinologist?

RESOURCES

- Find an Endocrinologist: www.hormone.org or call 1-800-HORMONE (1-800-467-6663)
- Hormone Health Network information about men's health: www.hormone.org/Resources/mens-health.cfm
- American Urological Association Foundation: www.urologyhealth.org
- MedlinePlus (National Institutes of Health): www.nlm.nih.gov/medlineplus



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www.hormone.org