

Testosterone Replacement Therapy Information Sheet

Luke Machen MD

Alliance Urology

336-274-1114

What is Low Testosterone?

Testosterone is a male sex hormone that plays a major role in our sexual development, including the production of body hair, muscle strength, and sexual drive.

What are the causes of Low Testosterone?

There are many causes of low testosterone. These can include obesity, medication side effects, injuries to the testicles, or issues with your pituitary gland. Additionally, our testosterone typically decreases with age.

What are symptoms of Low Testosterone?

Symptoms of low testosterone can include decreased energy, weight gain, decreased libido, decreased amounts of lean muscle mass, and signs of depression.

What are the benefits of treating low testosterone?

Testosterone Therapy may result in improvements in erectile function, sex drive, anemia, bone mineral density, energy, and mood. It can also make it easier to lose “bad” weight and put on “good” weight

What are the side effects of testosterone treatment?

- Testosterone can cause mood lability, hair loss, nipple tenderness, and/or breast tissue growth.
- It can also cause an elevation in your hematocrit, which is a measure of blood thickness. If your blood gets too thick, you may be required to donate blood. Additionally, if this persists, it can lead to an increase in the risk of cardiovascular events.
- If you are currently trying to have a child or plan to have a child - please let your doctor know! Most forms of testosterone shut off sperm production in your testicles.
- There is some controversy regarding testosterone and its relationship with prostate cancer. At this time, there is no evidence showing testosterone causes prostate cancer.
- There is evidence that having too high or too low of a testosterone is bad for your heart in the long run. That being said, if you have recently had a cardiovascular event (heart attack, stroke...) in the last 6 months please let your doctor know.

What treatment types are available?

Treatment for low testosterone involves administering controlled doses of testosterone hormone to your body. There are many treatment types available, including injections, gels, subcutaneous autoinjector, intranasal, and pills.

Injections - these are injections you give yourself at home typically every 7-10 days

Pros: usually cost effective even if not covered by insurance.

Cons: involves needles, higher risk of side effects relative to other formulations, sometimes symptoms can be “up and down” corresponding to your testosterone levels on the medication

Gels - these are applied directly onto the skin, typically every morning. The medication is absorbed by your body over the course of 1-2 hours

Pros: lower risk of side effects, better at maintaining a steady state in your bloodstream

Cons: a unique risk of gels is that they can rub off on other people. Applied properly, the risk is low, but is more of a concern in men that have young children in their household

Subcutaneous autoinjector (Xyosted) - this formulation comes in a pre-loaded autoinjector that you administer once per week in the fatty tissue next to your belly button.

Pros: easy to use, good symptom response, needle not visible

Cons: since new requires prior authorization with insurance

Intranasal (Natesto) - applied to the inside of each nostril, typically twice per day. This testosterone is shorter acting and more closely mimics your body's natural testosterone production over the course of the day.

Pros: no testicular shrinkage, preserves your native testicular function, preserves sperm function, low risk of side effects

Cons: have to do twice per day, since it's a newer medication requires prior authorization with your insurance

Pills (Jatenzo) - this is a testosterone pill you take twice per day

Pros: easy to take, low side effect risk

Cons: since it's a newer medication requires prior authorization.