



Testosterone

What is the goal of testosterone therapy?

Testosterone has two main jobs: It causes masculinizing changes to occur throughout the body, and it suppresses the production of estrogen. Some of the changes caused by testosterone are permanent and others are reversible.

How is testosterone administered?

Testosterone is available as injections, patches, gel, and pellets. Injections are administered every 1-2 weeks, usually in the layer of fat underneath the skin. Nursing staff provides injection training. Gel and patch forms are applied daily and absorb through the skin. Pellets are inserted under the skin during a minor procedure and are inserted every 3 months.

What are the permanent effects of testosterone?

Testosterone causes the following permanent changes: voice deepening, clitoral growth, body/ facial hair growth, and sometimes balding. Testosterone may also irreversibly affect fertility, though the likelihood of this is not known. Fertility goals should be considered prior to starting testosterone, as fertility preservation may be an option. We work with Lurie's fertility preservation team to provide these services.

What are the reversible (non-permanent) effects of testosterone?

Testosterone causes increased muscle tone, fat redistribution (hips, thighs, stomach area), skin oiliness and acne. It can cause an increase in body odor and sweat. Mood changes (often irritability, having a "shorter fuse") and heightened sex drive may occur. Menstrual cycles will change and eventually stop. There may be genital changes like thinning of the tissue or dryness caused by low estrogen levels.

What are the side effects and risks of taking testosterone?

Testosterone may impact your metabolic health – that is, the risk for conditions including diabetes, high cholesterol, and high blood pressure. These things can increase risk for heart disease. People who take testosterone should have monitoring for these conditions and should focus on strategies to prevent these conditions, like eating well, exercising, and avoiding smoking cigarettes.

Testosterone causes an increase in the red blood cells in the body. If this number becomes very high, it can increase the risk of stroke or blood clot, so this is monitored for people taking testosterone.

Testosterone can also cause increase in appetite, weight gain, headaches, and acne.

How is testosterone treatment monitored?

Blood tests are collected prior to starting testosterone and every 3 months for the first year of treatment. In the second year, labs are checked every 3 months. After that, test frequency depends on



the patient but is usually every 6-12 months. Testing includes cholesterol, diabetes screening, hormone levels, and blood counts. These can be drawn at Lurie or another facility closer to home.

How long will I need to take testosterone?

Many people plan on taking testosterone for an indefinite time period because some of the effects of testosterone are not permanent and can reverse if testosterone is stopped. But the decision to take testosterone is individual, and there is not one right amount of time to take it for everyone. We support patients in continued decision making about testosterone during their treatment.

How quickly will changes develop?

It's normal to want to see changes occur quickly, but these changes take time. Most changes start in about 3-6 months but can take years to develop. The table below explains the expected timeline. Remember – everyone's experience on testosterone is different and can be influenced by your individual body composition and genes. It's impossible to predict *exactly* how your body will change with testosterone.

The right dose of testosterone is different for different people. It's important to take the prescribed dose of testosterone and talk with your provider if you have concerns about the effects of testosterone.

Change	Beginning of change	Maximum effect
Fat redistribution	3-6 months	2-5 years
Oily skin and acne	1-6 months	1-2 years
Facial and body hair growth	3-6 months	3-6 years
Increased muscle mass and strength	6-12 months	2-5 years
Periods stop	2-6 months	Not applicable
Deeper voice	3-12 months	1-2 years
Clitoral growth	1-6 months	1-2 years
Scalp hair loss and balding	12 months or more (not everyone experiences this)	Varies

Table information is based on guidelines from the World Professional Association for Transgender Health