



## Information on Testosterone Therapy

Persons in the female-to-male spectrum who wish to become more masculine may use testosterone to reduce gender dysphoria and facilitate a more masculine gender presentation. While there are risks associated with taking testosterone, when appropriately prescribed it can greatly improve mental health and quality of life.

Please review the following information to make sure that you understand the benefits, risks, and changes that may occur from taking testosterone. If you have any questions or concerns about the information below, please talk with the people involved in your care so you can make fully informed decisions about your treatment. It is your right to seek another opinion if you want additional perspective on any aspect of your care.

### Masculinizing Effects

1. Testosterone reduces female physical characteristics and masculinizes the body.
2. The masculinizing effects of testosterone can take several months or longer to become noticeable, the rate and degree of change is unpredictable. Changes may not be complete for 2-5 years after testosterone treatment is started.
3. The following changes will likely be permanent even if one stops taking testosterone:
  - Lower voice pitch (i.e., voice becoming deeper).
  - Increased growth of hair, with thicker/coarser hairs, on arms, legs, chest, back, and abdomen.
  - Gradual growth of moustache/beard hair.
  - Hair loss at the temples and crown of the head, with the possibility of becoming completely bald.
  - Genital changes may or may not be permanent if testosterone is stopped. These include clitoral growth (typically 1-3 cm) and vaginal dryness.
4. The following changes may reverse if one stops taking testosterone:
  - Acne, which may be severe and can cause permanent scarring if not treated.
  - Fat distribution may change (less on buttocks/hips/thighs, more on abdomen).
  - Increase in muscle mass and upper body strength.
  - Increase in libido (sex drive).
  - Menstrual periods typically stop within 1-6 months of starting testosterone.

5. The effects of testosterone on fertility are unpredictable.
  - If you stop taking testosterone you may or may not be able to get pregnant in the future.
  - Even after menstrual periods stop it may still be possible to get pregnant.
  - Birth control/contraceptive options are available (if applicable).
  - Testosterone must not be taken during pregnancy.

6. There are some aspects of the body that testosterone will not change:

- Breasts may appear slightly smaller due to fat loss, but will not substantially shrink.
- Although voice pitch will likely drop, other aspects of speech will not become more masculine.

Other treatments are available that may be helpful. Referrals can be made to specialists for other gender affirming care and procedures.

## Risks of Testosterone

7. The medical effects and safety of testosterone are not fully understood. There may be long-term risks that are not yet known.
8. Taking more testosterone than prescribed increases health risks. Taking more testosterone will not make masculinization happen more quickly or increase the degree of change. In fact, extra testosterone can be converted to estrogen, which may slow or stop masculinization.
9. Testosterone can cause changes that increase the risk of heart disease, including:
  - decreasing good cholesterol (HDL) and increasing bad cholesterol (LDL)
  - increasing blood pressure
  - increasing deposits of fat around internal organs

The risk of heart disease is greater if there is a family history of heart disease, if one has extra fat tissue on the abdomen.

Smoking increases the risk of heart disease, cancer, and other medical problems.

Periodic heart health checkups, including monitoring of weight and cholesterol levels, are important while taking testosterone.

10. Testosterone can contribute to damage in the liver, possibly leading to liver disease. Labs may be needed to monitor for liver disease for people at higher risk.
11. Testosterone can increase red blood cells and hemoglobin, and while the increase does not usually pose health risks, a higher level can cause potentially life-threatening problems such as stroke and heart attack. It is important to be tested periodically for these changes while taking testosterone. Your dose of testosterone may need to be lowered if your hemoglobin and hematocrit are too high.

12. Testosterone can increase the risk for diabetes by decreasing the body's response to insulin, causing weight gain, and increasing deposits of fat around internal organs. It is important to test fasting blood glucose periodically while taking testosterone, especially if there is a family history of diabetes.
13. Testosterone can increase the chance of developing or worsening Obstructive Sleep Apnea, especially if this condition runs in the family. This is a condition in which the airway is intermittently blocked while sleeping, sometimes many times an hour. If untreated, it contributes to heart disease and stroke risks.
14. Testosterone is converted to estrogen by various tissues in the body. It unknown whether this increases the risks of ovarian cancer, breast cancer, or uterine cancer.
15. Testosterone can lead to the cervix and the walls of the vagina becoming more fragile, and that this can lead to tears or abrasions that increase the risk of sexually transmitted infections (including HIV) with vaginal sex – no matter what the gender of the partner. Talk with your health care provider about sexual practices to determine how best to prevent and monitor for sexually transmitted infections.
16. Testosterone can cause headaches or migraines. Talk with your health care provider if having frequent headaches or migraines, or the pain is unusually severe.
17. Testosterone can cause emotional changes, including increased irritability, frustration, and anger. Talk with your health care provider about finding resources to explore and cope with these changes.
18. Testosterone will result in changes that will be noticeable by other people. People have experienced harassment, discrimination, and violence, while others have lost support of loved ones. Talk with your health care provider about finding advocacy and support resources.
19. Testosterone may increase the risk of Venous Thrombo-Embolicism, including Deep Vein Thrombosis (DVT) and Pulmonary Embolism (PE). This is more likely to occur with use of Tobacco. It is more likely to occur if there are family members with such problems.

## **Prevention of Medical Complications**

20. Take testosterone as prescribed and tell your health care provider if you are not happy with the treatment or are experiencing any problems.
21. The dose or type of medication prescribed may not be the same as for someone else.
22. Physical examinations and regular blood tests will be needed to check levels and to check for negative side effects of testosterone.
23. Testosterone can interact with other medication (including other sources of hormones), dietary supplements, herbs, alcohol, and street drugs. Tell your health care provider about other things you are taking to help prevent medical complications that could be life threatening. You will continue to get medical care no matter what information you share.

24. Some medical conditions make it dangerous to take testosterone. You may need further testing if your health care provider suspects one of these conditions before deciding to start or continue testosterone.
25. You can choose to stop taking testosterone at any time, but do this with the help of your health care provider to make sure there are no negative reactions to stopping. Your health care provider may suggest reducing or stopping testosterone if there are severe side effects or health risks.
26. Dispose of any needles used for injectable medication in a sharps box or other hard sided container to avoid injury. Some pharmacies will accept sharps boxes for disposal, or will have a policy for returning the box when full.
27. Testosterone is an FDA (Federal Drug Administration) monitored Controlled Substance. This means it is a felony to give or sell it to someone else, even in the context of wanting to help out a friend. Keep testosterone prescriptions in a secure place and do not share or sell it.

**My signature below confirms that:**

- I have read the Information on Testosterone Therapy.
- My clinician has talked with me about the benefits and risks of testosterone, the possible or likely consequences of hormone therapy, and potential alternative treatment options.
- I understand the risks that may be involved.
- I understand that this form covers known effects and risks and that there may be long-term effects or risks that are unknown.
- I have had sufficient opportunity to discuss treatment options with my clinician. I have no further questions.
- I believe I have adequate knowledge on which to base informed consent to the provision of testosterone therapy.

**Based on this:**

\_\_\_\_\_ I wish to begin taking testosterone.

***Whatever your current decision is, please talk with your clinician any time you have questions, concerns, or want to re-evaluate your options.***

\_\_\_\_\_  
Patient Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Prescribing Clinician Signature

\_\_\_\_\_  
Date