UAMS
For a Better State of Health

Testosterone for Transgender Patients

Client Information for Informed Consent

You want to take testosterone to masculinize your body. Before taking it, there are several things you need to know about. They are the possible advantages, disadvantages, risks, warning signs, and alternatives. We have listed them here for you. It is important that you understand all of this information before you start. We are happy to answer any questions you have.

What is testosterone?

It is the sex hormone that makes certain features appear typically male. It builds muscle and causes the development of facial hair and a deeper voice.

How is testosterone taken?

It is usually injected every one or two weeks. It is not used as a pill because the body may not absorb it properly. Some people use skin creams and patches, but they tend to be more expensive.

The doses used for injection are different for everyone. You will start with a lower dose and will increase based on your results, lab values, and side effects.

Injections: {*May be subcutaneous or intramuscular*}There are no differences in how the testosterone works if you inject it under the skin or into a muscle. Some people find that under the skin is less painful. Others are more comfortable with the muscle injection. Either is fine.

If you decide to use the cream or patch, you will apply it daily. Be VERY careful not to let the cream transfer to others around you, especially children.

Warning—Who Should Not Take Testosterone?

It should *not* be used by anyone who is pregnant or has uncontrolled coronary artery disease. It should be used with caution and only after a full discussion of risks by anyone who:

- has a family history of heart disease or breast cancer
- has had a blood clot
- has high levels of cholesterol
- has liver disease
- has a high red-blood-cell count
- smokes cigarettes

Benefits

- amenorrhea (absence of menstrual periods)
- appearing more masculine:
  lower voice*
  more body hair*
  more facial hair*
  more muscle mass
  bigger clitoris*
  coarser skin
  more strengths
- protection against bone thinning (osteoporosis)

*These are permanent changes.

Risks

- acne (may permanently scar)
- blood clots (thrombophlebitis)
- emotional changes—for example, more aggression
- headache
- heart disease
- high blood pressure (hypertension)
- high cholesterol
- increased red-blood-cell count
- infertility
- inflamed liver
- male pattern baldness
- obstructive sleep apnea
- thinning of vaginal skin (vaginal atrophy)
- weight gain

It is important to screen your body parts for cancer. If you have a cervix, you will need regular pap smears. If you have breasts, you will need regular exams and mammograms when recommended. If you have those organs removed, your screening recommendations will change.

Masculinizing

_____ I know that testosterone may be prescribed to make me appear and feel more masculine.

_____ I know it can take several months or longer for the effects to become noticeable. I know that no one can predict how fast--or how much—change will happen. I know that the changes may not be complete for two to five years after I start.

_____ I know that the following changes are likely and permanent even if I stop taking testosterone:

- bigger clitoris—typically about half an inch to a little more than an inch
- deeper voice
- gradual growth of moustache and beard
- hair loss at the temples and crown of the head—possibility of being completely bald
- more, thicker, and coarser hairs on abdomen, arms, back, chest, and legs

Masculinizing, *continued*

_____ I know that the following changes are usually not permanent—they are likely to go away if I stop taking testosterone:

- acne (may permanently scar)
- menstrual periods typically stop one to six months after starting
- more abdominal fat—redistributed to a male shape: decreased on buttocks, hips, and thighs; increased in abdomen—changing from "pear shape" to "apple shape"
- more muscle mass and strength
- more sex drive
- genital dryness

_____ I know that the effects of testosterone on fertility are unknown. I have been told that I may or may not be able to get pregnant even if I stop taking testosterone. I know that I might still get pregnant even after testosterone stops my menstrual periods. I know about my birth control options (if applicable). And I know that I can't take testosterone if I am pregnant.

_____ I know that some aspects of my body will not be changed:

- Losing some fat may make my breasts appear slightly smaller, but they will not shrink very much.
- Although my voice will deepen, other aspects of the way I speak may not sound masculine.

_____ I know that there are other treatments that may be helpful to make my breasts smaller or my speech manlier. If I have concerns, I know you can give me referrals to help me explore treatment options.

Sexual Health, Contraception and Fertility Preservation

• When you start taking testosterone, you will no longer have periods. You may also stop ovulating regularly. This does not mean you cannot become pregnant while taking testosterone. If you have sex with a partner that could cause an unwanted pregnancy, you should be using some form of birth control.
• If you would like to have genetic children in the future, you may choose to harvest and store your eggs. This procedure is expensive, but is the best way to ensure you have healthy eggs in the future.
• If you choose NOT to harvest and store your eggs, you can stop testosterone and see if your ovaries resume ovulation. However, the risk to the eggs that have been exposed to testosterone has not been studied. We do not know what risks, if any, are elevated in children born from those eggs.
• If you harvest and store your eggs, you can carry a future pregnancy yourself, have a partner carry the pregnancy, or have a gestational carrier (or surrogate) carry the pregnancy.
• If you decide you want to become pregnant, you will need to stop your testosterone for at least 3 months prior to trying to conceive. You should discuss this with your physician.
• There are many legal aspects to consider if trying to conceive with a known sperm donor who is not going to act as the child's parent. Please talk to your doctor or a lawyer before pursing this on your own.
• Vaginal atrophy is the thinning of the vaginal skin. It can cause discomfort, itching, or burning with urination. It can also cause increased bladder infections. If you use your vagina for sex, you may notice dryness, skin tearing or pain. You can use a moisturizer to the vaginal skin, such as coconut oil, olive oil, or Vaseline to improve these symptoms. If you still are experiencing discomfort, speak to your physician.

Risks of Testosterone

_____ I know the medical effects and the safety of testosterone are not completely known. There may be long-term risks that are not yet known.

_____ I know not to take more testosterone than prescribed. I know it increases health risks. I know that taking more than I am prescribed won't make changes happen more quickly or more significantly. I know by body can convert extra testosterone into estrogen, and that can slow down or stop my appearing more masculine.

_____ I know that testosterone can cause changes that increase my risk of heart disease. I know these changes include having:

- less good cholesterol (HDL) that may protect against heart disease and more bad cholesterol (LDL) that may increase the risk of heart disease
- higher blood pressure
- more deposits of fat around my internal organs

_____ I know that my risk of heart disease is higher if people in my family have had heart disease, if I am overweight, or if I smoke.

_____ I know that I should have periodic heart-health checkups for as long as I take testosterone. I know that means I must watch my weight and cholesterol levels and have them checked by my clinician.

_____ I know testosterone can damage the liver and possibly lead to liver disease. I know I should be checked for possible liver damage for as long as I take testosterone.

_____ I know testosterone can increase my red blood cells and hemoglobin. I know that the increase is usually only to what is normal for a man. I know that would have no health risks. But I also know that a higher increase can cause problems that can be life-threatening. These problems include stroke and heart attack. That's why I know I need to have periodic blood checks for as long as I take testosterone.

_____ I know that taking testosterone can increase my risk for diabetes. It may decrease my body's response to insulin, cause weight gain, and increase deposits of fat around my internal organs. I know that I should have periodic checks of my blood glucose for as long as I take testosterone.

_____ I know my body can turn testosterone into estrogen.

_____ I know taking testosterone can thin the tissue of my cervix and the walls of my vagina. This can lead to tears or abrasions during vaginal sex play. I know it doesn't matter if my partner is a woman or a man. This raises my risk of getting a sexually transmitted infection, including HIV. I know I should speak frankly with my clinician about my sex life to learn the best ways to prevent and check for infections.

Risks of Testosterone, *continued*

_____ I know that testosterone can give me headaches or migraines. I know that it's best to talk with my clinician if I get them a lot or if the pain is unusually severe.

_____ I know that testosterone can cause emotional changes. For example, I could become more irritable, frustrated, or angry. I know that my clinician can help me find resources to explore and cope with these changes.

_____ I know that testosterone causes changes that other people will notice. Some transgender people have experienced harassment, discrimination, and violence because of this. Others have lost the support of loved ones. I know my clinician can help me find advocacy and support resources.

Prevention of Medical Complications

_____ I agree to take testosterone as prescribed. And I agree to tell my clinician if I have any problems or am unhappy with the treatment.

_____ I know that the dose and type of medication that's prescribed for me may not be the same as someone else's.

_____ I know I need periodic physical exams and blood tests to check for any side effects.

_____ I know testosterone can interact with other drugs and medicines. These include alcohol, diet supplements, herbs, other hormones, and street drugs. This kind of interaction can cause complications. I know that I need to prevent complications because they can be life-threatening. That's why I need to be honest with my clinician about whatever else I take. I also know that I will continue to get medical care here no matter what I share about what I take.

_____ I know that it can be risky for anyone with certain conditions to take testosterone. I agree to be evaluated if my clinician thinks I may have one of them. Then we will decide if it's a good idea to start or continue using testosterone.

_____ I know that using testosterone to appear more masculine is an off-label use. I know this means it is not approved by the government. I know that the medicine and does that is recommended for me is based on the judgment and experience of the health care provider.

_____ I know that I can choose to stop taking testosterone at any time. I know that if I decide to do that, I should do it with the help of my clinician. This will help make sure there are no negative reactions. I also know my clinician may suggest that I cut the dose or stop taking it at all if certain conditions develop. This may happen if the side effects are severe or there are health risks that can't be controlled.

Alternatives

There are alternatives to using testosterone to help people appear more masculine. If you are interested in alternatives to testosterone therapy, talk to your clinician about your options.

My signature below confirms that:

- My doctor has talked with me about:
  - the benefits and risks of taking testosterone
  - the possible or likely consequences of hormone therapy
  - alternative treatment options
- I understand the risks that may be involved.
- I know that the information in this form includes the known effects and risks. I also know that there may be unknown long-term effects or risks.
- I have had enough opportunity to discuss treatment options with my clinician.
- All of my questions have been answered to my satisfaction.
- I believe I know enough to give informed consent to take, refuse, or postpone testosterone therapy.
- I am 18 years old or older.

Based on all this information:

_____ I want to begin taking testosterone.

_____ I do not want to begin taking testosterone at this time.

_____ _____

Patient Signature Date

_____ _____

Prescribing Clinician Signature Date

Your health is important to us. If you have any questions or concerns, please call us at _____. We are happy to help you.

Resource: SouthWind Women's Center

Testosterone, continued

Alternatives

There are alternatives to using testosterone to help people appear more masculine. If you are interested in alternatives to testosterone therapy, talk to your clinician about your options.

My signature below confirms that:

- My doctor has talked with me about:
  - the benefits and risks of taking testosterone
  - the possible or likely consequences of hormone therapy
  - alternative treatment options
- I understand the risks that may be involved.
- I know that the information in this form includes the known effects and risks. I also know that there may be unknown long-term effects or risks.
- I have had enough opportunity to discuss treatment options with my clinician.
- All of my questions have been answered to my satisfaction.
- I believe I know enough to give informed consent to take, refuse, or postpone testosterone therapy.
- I am 18 years old or older.

Based on all this information:

_____ I want to begin taking testosterone.

_____ I do not want to begin taking testosterone at this time.

_____ _____

Patient Signature Date

_____ _____

Prescribing Clinician Signature Date

Your health is important to us. If you have any questions or concerns, please call us at _____. We are happy to help you.

Resource: SouthWind Women's Center