

Feminizing Hormone Therapy

Information

The use of hormone therapy for gender transition/affirmation is based on many years of experience treating transgender people. Research on hormone therapy continues to provide information on the safety and efficacy of hormone therapy, but all of the long-term consequences and effects of hormone therapy may not be fully understood.

This information will help you to consider the expected benefits of hormone therapy and the possible side effects of hormone therapy. You can decide, with your medical provider, if hormone therapy is right for you.

Hormone Therapy

Each individual person responds to hormone therapy differently. It is difficult to predict how each person will respond. You agree to take the androgen blockers and/or the estrogen only as prescribed and to discuss your treatment with your medical provider before making any changes.

Androgen (testosterone) blockers are used to decrease the amount and/or block the effect of testosterone and reduce the male features of the body.

Estrogen (usually estradiol) is used to feminize the body; estrogens can also decrease the amount and effect of testosterone. Your medical provider will determine the form of estrogen (pills, patches, gels or shots) and the dose that is best for you based on your personal needs and wishes, as well as considering any medical or mental health conditions you might have.

Expected Effects of Feminizing Hormone Therapy

Feminine changes to your body may take several months to become noticeable and usually take up to 3 to 5 years to be complete.

PERMANENT CHANGES - these will not go away, even if you decide to stop hormone therapy:

- Breast growth and development. Breast development and size may vary, and many patients also opt for top surgery.
- The testicles will get smaller and softer.
- The testicles will produce less sperm, and you may become infertile (unable to get someone pregnant); how long this takes to happen and whether it becomes permanent varies from person to person.
- You may consider banking sperm prior to beginning hormone therapy.
- Because sperm production can be hard to predict, if you have penetrative sex with a natal female partner, you or your partner should still use birth control (e.g. condoms).

NOT PERMANENT CHANGES - these are likely to go away if hormone therapy is stopped:

- Loss of muscle mass and decreased strength, particularly in the upper body.
- Weight gain. If you gain weight, this fat will tend to go to the buttocks, hips and thighs, rather than the abdomen and mid-section, making the body look more feminine.

- Skin will become softer and acne may decrease.
- Facial and body hair will get softer and lighter and grow more slowly; usually, this effect is not sufficient, and most women will choose to have other treatments (electrolysis or laser therapy) to remove unwanted hair.
- Male pattern baldness of the scalp may slow down or stop, but hair will generally not regrow.
- Reduced sex drive.
- Decreased strength of erections or inability to get an erection. The ejaculate will become thinner and watery and there will be less of it.
- Changes in mood or thinking may occur; you may find that you have increased emotional reactions to things. Some people find their mental health improves after starting hormone therapy. The effects of hormones on the brain are not fully understood.

Hormone therapy will not change the bone structure of your face or body; your Adam's apple will not shrink; the pitch of your voice will not automatically change. You may want to try other treatments to address these areas.

Risks of Hormone Therapy

- **Increased risk of developing blood clots.** Blood clots in the legs or arms (DVT) can cause pain and swelling; blood clots to the lungs (pulmonary embolus) can interfere with breathing and getting oxygen to the body; blood clots in the arteries of the heart can cause heart attacks; blood clots in the arteries of the brain can cause a stroke. Blood clots to the lungs, heart or brain could result in death. Note: transdermal estrogen has lower thromboembolic risks than oral.
- **Possible increased risk of having cardiovascular disease, a heart attack or stroke.** This risk may be higher if you smoke cigarettes, are over 45, or if you have high blood pressure, high cholesterol, diabetes, or a family history of cardiovascular disease. Note: transdermal estrogen has lower cardiovascular risks than oral.
- **Possible increase in blood pressure.** This might require medication for treatment.
- **Possible increased risk of developing diabetes.**
- **Nausea and vomiting** especially when starting estrogen therapy.
- **Increased risk of gallbladder disease and gallstones.**
- **Changes in blood tests for the liver.** Estrogen may possibly contribute to damage of the liver from other causes.
- **May cause or worsen headaches and migraines.**
- **May cause elevated levels of prolactin** (a hormone made by the pituitary gland). A few people on estrogen for hormone therapy developed prolactinomas, a benign tumor of the pituitary gland that can cause headaches and problems with vision and cause other hormone problems.
- **May worsen depression or cause mood swings.**
- **May increase the risk of breast cancer.** The risk is probably higher than in natal men but lower than in natal women; the risk is probably related to how long you take estrogen therapy.

The Risks and Possible Side Effects of Androgen Blockers (Spironolactone)

- Increased urine production and needing to urinate more frequently; possible changes in kidney function.
- A drop in blood pressure and feeling lightheaded.

- Increased thirst.
- Increase in the potassium in the blood and in your body. This can lead to muscle weakness, nerve problems and dangerous heart arrhythmias (irregular heart rhythm).

You understand that:

- Smoking may greatly increase the risks of taking hormone therapy, especially the risk of blood clots and cardiovascular disease. If you smoke, you should try to cut back or quit. If you have other risks for blood clots or cardiovascular disease, your provider may ask you to quit smoking before you start on hormone therapy.
- Taking estrogen in doses that are higher than recommended by your doctor will increase your risk of side effects and may not produce better feminizing effects.
- You may need to stop taking hormones for a few weeks before and after any surgery.
- Treatment with estrogen is expected to be lifelong. If you've had an orchiectomy; suddenly stopping estrogen treatment after you have been on it for a long time may have negative health effects.
- You may choose to stop taking hormone therapy at any time or for any reason. You are encouraged to discuss this decision with your medical provider.
- Your provider may decrease the dose of estrogen or androgen blockers or stop prescribing hormone therapy because of medical reasons and/or safety concerns; you can expect that the medical provider will discuss the reasons for all treatment decisions with you.
- Hormone therapy is not the only option for transitioning or gender affirming care; your medical provider and/or a mental health provider can help you think about other options.

You agree to:

- Take androgen blockers and/or estrogens only at the dosage and in the form that your medical provider prescribes.
- Inform your medical provider if you are taking or start taking any other prescription drugs, dietary supplement, herbal or homeopathic drugs, street drugs or alcohol so that you can discuss possible interactions with and effects on your hormone treatment.
- Inform your medical provider of any new physical symptoms or any medical conditions that may develop before or while you are taking hormone therapy and discuss the evaluation of these conditions. Inform your provider if you think you are having bad side effects from the medications.
- Keep regular follow up appointments; this may include appointments for mammograms and prostate exams.
- Have regular monitoring blood testing done. Your provider will discuss with you what tests are necessary in order to monitor for potential harmful effects and to ensure your hormone therapy is safe and effective.