



INFORMED CONSENT FOR ESTROGEN/ TESTOSTERONE BLOCKER THERAPY

- The use of hormone therapy for gender transition/affirmation is based on many years of experience treating trans persons.
- Research on hormone therapy is providing us with more and more 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 handout is given to you to help you consider the expected benefits and the possible side effects of hormone therapy so that you can decide, with your health care provider, if hormone therapy is right for you.
- Estrogen (usually estradiol) is used to feminize the body; estrogens can also decrease the amount and effect of testosterone.
- You and your health care 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.
- Androgen (testosterone) blockers are used to decrease the amount and/or block the effect of testosterone on and reduce the number of masculine features of the body.
- Each individual person responds to hormone therapy differently, and it is difficult to predict how each person will respond.

The Expected Effects of Feminizing Hormone Therapy

The feminine changes in the body may take several months to become noticeable and usually take up to 3 to 5 years to be complete.

Expected Timeline for PERMANENT feminizing effects of HRT **these will not go away, even if you decide to stop hormone therapy:**

	Expected onset	Expected maximum effect
Decrease in testicular size <ul style="list-style-type: none"> • The testicles will get smaller and softer 	3-6 mo	2-3 yr
Decreased sperm production (likely permanent) <ul style="list-style-type: none"> • The testicles will produce less sperm. • The ability to get someone pregnant may decrease significantly or stop (infertility). If you want to have biological children in the future, we can discuss sperm banking. • The time this takes and whether infertility becomes permanent varies greatly from person to person. • Fertility may or may not return after stopping estrogen • Because the effect on sperm production is hard to predict, if you have penetrative sex with someone who could get pregnant, you and your partner should still use birth control (e.g. condoms or some other method). 	Unknown	>3 years
Breast growth & development <ul style="list-style-type: none"> • Breast size varies. Some of this is genetic and somewhat predictable based on the size of the breasts of your mother, sisters, or aunts. • Breasts may look smaller on a broad chest. If you stop taking estrogen your breasts may shrink some but will not go away completely. 	3-6 mo	2-3 yr

Expected Timeline for TEMPORARY Feminizing effects of HRT –

Changes that are NOT PERMANENT and will likely reverse if hormone therapy is stopped:

	Expected onset	Expected maximum effect
Decreased spontaneous erections <ul style="list-style-type: none"> Decreased strength of erections or inability to get an erection. The ejaculate will become thinner and watery and there will be less of it. 	1-3 mo	3-6 mo
Decreased sex drive <ul style="list-style-type: none"> Your sex drive may decrease anywhere from slightly to a significant amount 	1-3mo	3-6 mo
Inability to get/maintain erections <ul style="list-style-type: none"> If the ability to get/maintain erections is important to you, please let us know so we can plan your meds accordingly. 	Variable	variable
Redistribution of body fat <ul style="list-style-type: none"> Fat will tend to go to the buttocks, hips and thighs, rather than the abdomen and midsection, making the body look more feminine 	3-6 mo	2-3 yr
Decrease in muscle mass & strength	3-6 mo	1-2 yr
Softening of skin/decreased oiliness & acne	3-6 mo	Unknown
Scalp and body hair <ul style="list-style-type: none"> Male pattern baldness of the scalp may slow down or stop, but hair will not regrow. The medications Finasteride may help with this. Familial scalp hair loss may happen if estrogens are stopped. Facial and body hair will get softer and lighter and grow more slowly, however, hair growth will not stop. Some people will choose to have other treatments (electrolysis or laser therapy) to remove unwanted hair 	Variable	Variable
Mood changes <ul style="list-style-type: none"> Changes in mood or thinking may occur Some people may feel increased emotional reactions and others may feel more balanced or less emotional. 	Variable	variable

Things that will NOT change on hormone therapy

Voice changes and bone structure <ul style="list-style-type: none"> Your Adam's apple will not shrink; the pitch of your voice will not automatically change. If desired, surgery can reduce the size of your Adam's apple and voice coaching may be helpful to raise your voice. Hormone therapy will not change the bone structure of the face or body. Surgery will be necessary to do this.
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OTHER RISKS AND POSSIBLE SIDE EFFECTS OF ESTROGEN THERAPY

- Possible increased risk of developing blood clots.
 - Risks are uncertain overall, with higher risks in those with a family or personal risk of blood clots, and those using high doses of or some forms of estrogen (i.e., Premarin).
 - Other research shows lower risks with other forms of estrogen (patches).
 - Your risk will be higher if you smoke, are exposed to second hand smoke, or use other forms of tobacco while taking estrogen therapy.
 - Risks include developing blood clots in the legs or arms (DVT); blood clots in the lungs (pulmonary embolus); blood clots in the arteries, including the arteries of the brain. Blood clots to the lungs, heart, or brain could result in death.
- Possible increased risk of developing cardiovascular disease, a heart attack, or stroke.
 - This risk may be higher if you use tobacco products, are over age 45, or already have high blood pressure, high cholesterol, diabetes, or a family history of cardiovascular disease, and if you have low physical activity.
- Possible increase in blood pressure which might require medication for treatment.

- May cause or worsen headaches and migraines
- May cause elevated levels of prolactin (a hormone made by the pituitary gland); a few persons on estrogen for hormone therapy have developed prolactinomas, a benign tumor of the pituitary gland that can cause headaches and problems with vision and cause other hormone problems.
- Possible changes in mental health
 - Some people may feel their mental health and social comfort increases and others may feel it declines.
 - There is no clear evidence that estrogen therapy is directly responsible for causing or making worse any mental health conditions.
 - If you have a history of depression, anxiety, or other mental health diagnoses, discuss these with the clinic staff to explore modifications to hormone therapy and other supports and services are best to meet your needs

THE RISKS AND POSSIBLE SIDE EFFECTS OF TESTOSTERONE BLOCKERS (SPIRONOLACTONE)

- Increased urine production and needing to pee 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). Lab tests for potassium levels will be ordered to be done a few weeks after you start or change doses of spironolactone.
- If used without estrogen therapy, testosterone blockers may cause hot flashes and low mood or energy.
- Long-term use of testosterone blockers to fully block testosterone without additional hormone therapy may result in bone loss.

THINGS THAT CAN AFFECT THE RISKS AND SIDE EFFECTS OF FEMINIZING THERAPY

- 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 provider will increase your risk of side effects and may not produce better feminizing effects.
- Some surgeons may suggest you stop taking hormones for a few weeks before and after any surgery to decrease the risk of blood clots.
- You may choose to stop taking hormone therapy at any time or for any reason. You are encouraged to discuss this decision with your health care provider.
- If necessary, your provider may decrease the dose of estrogen or androgen blockers or stop prescribing hormone therapy because of medical reasons; you can expect that your provider will discuss the reasons for all treatment decisions with you.

Your responsibilities for your health care. You agree to:

- Take testosterone blockers and/or estrogens only at the dosage and in the form that your health care provider prescribes.
- Inform your health care provider if you develop any new physical symptoms, new medical conditions, or if you feel like you are having any negative side effects from your medications.
- Keep regular follow up appointments. **We may refuse to refill your meds if you are not getting regular visits as we had agreed upon.**
- 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 that your hormone therapy is safe and effective.
- Contact us at least 48 hours before you need a medication refill (more if it is over a weekend). **We cannot guarantee refills will be granted before you run out if refills are requested with less notice.**

VERBAL CONSENT TO BEGIN ESTROGEN/TESTOSTERONE BLOCKER THERAPY

By verbally consenting to start therapy, you are saying that:

- During a telehealth visit, my provider has talked with me about:
 - the benefits and risks of taking estrogen and testosterone blockers
 - the possible or likely physical changes related to hormone therapy
 - potential additional treatments
- I understand the known risks that may be involved. I also understand that there may be unknown long-term effects and risks.
- I have had enough of an opportunity to discuss treatment options with my provider.
- All of my questions have been answered to my satisfaction.
- I believe I know enough to give informed consent to begin or continue therapy with estrogen and/or testosterone blockers.

The patient gives their verbal consent to begin HRT.

Reviewing clinician _____
Provider signature Date