

Hormone Resource Guide: Estrogen & Testosterone Blockers

What is Gender Affirming Hormone Therapy?

Gender Affirming Hormone Therapy, sometimes known as HRT, can increase the levels of estrogen and lower the levels of testosterone in the body. Hormones tell your body how to work and they regulate many of your body's functions, like growth, sex drive, hunger, thirst, digestion, metabolism, blood sugar, cholesterol, fat placement, hair growth, breast growth, voice changes, bone growth. The effects of Estrogen and/or Blockers as gender affirming hormone therapy in transfeminine and non-binary people, assigned male at birth include:

- Redistribution of body fat
- Breast growth
- Body hair growth may slow; pattern baldness may also slow
- Softening of skin and decreased oiliness of skin
- Decrease in muscle mass and strength
- Decreased sexual desire
- Decreased erections and/or changes in sexual function
- Decreased testicular volume
- Decreased sperm production

Changes may begin to occur after 1 to 6 months and up to 3 years after beginning to take estrogen and/or testosterone blockers. Some of the changes are permanent and irreversible.

The rate at which you experience changes will also depend on your dosage and even method of hormone use. Doses of estrogen and/or testosterone blockers vary from person to person and there is no, one right dose for everyone. Your dose and method of taking estrogen and/or anti-androgens ("blockers") may be different from another person's.

Gender affirming hormone therapy may affect someone's ability to produce viable sperm, or overall fertility. Someone who wishes to use their sperm for pregnancy should discuss fertility support with a medical provider or gender aware fertility specialist.

Estrogen and/or blockers will not stop pregnancy nor will they prevent against STIs. People taking gender affirming hormones should discuss appropriate contraception and STI prevention with their medical provider.

Some people experience changes to their mood or energy while taking gender affirming hormones, these changes vary from person to person and may impact any existing mental health concerns. Please share any changes to your mental health with your medical provider.

You can always stop taking transition-related medications at any time. If you have had a gender affirming orchiectomy, please talk with your medical provider about any necessary considerations before stopping hormones.

Possible Effects of Estrogen in AMAB Persons

Effect	Onset	Maximum	Reversible or Permanent
Redistribution of Body Fat	1 to 6 months	2 to 3 years	Reversible
Decrease Muscle Mass and Strength	3 to 6 months	1 to 2 years	Reversible
Softening of Skin/ Decreased Oiliness	3 to 6 months	Unknown	Reversible
Decreased Libido	1 to 3 months	3 to 6 months	Reversible
Decreased Spontaneous Erections	1 to 3 months	3 to 6 months	Reversible
Sexual Dysfunction	Variable	Variable	Reversible
Decreased Terminal Hair Growth	6 to 12 months	> 3 years*	Reversible
Breast Growth	3 to 6 months	2 to 4 years	Permanent
Decreased Testicular Volume	3 to 6 months	2 to 3 years	Possibly Permanent
Decreased Sperm Production	Unknown	> 3 years	Possibly Permanent
Scalp Hair	No Regrowth	**	
Voice Changes	None	***	

* Complete removal of hair requires electrolysis/laser

** Familial scalp hair loss may occur if estrogens are stopped

*** Treatment by speech pathologists for voice training is most effective

What are the common gender affirming hormones for for transfeminine and non-binary people?

The dosage appropriate for you will be determined in discussion with your provider.

- Estrogens
 - Estradiol pill (2.0-8.0 mg/day)
 - Estradiol patch (0.025-0.5 mg/day)—new patch placed every 3-5 days
 - Estradiol injectable (5-20 mg weekly)
 - Premarin pill (1.25-5mg)
- Testosterone blockers (anti-androgens)
 - Spironolactone (50-300 mg/day)
 - Finasteride (1mg/day-5mg/day)
 - Dutasteride (0.5 mg/day)
- Additional medications can include:
 - Bicalutamide (50mg/day)
 - Micronized Progesterone (100-200mg/day)

* Micronized progesterone is not the same as Depo Provera.

** Premarin is less frequently recommended as a first-line option

What is a hormone level check?

Hormone checks are a quick assessment of hormone levels in your body using a blood sample. We will provide you with your current hormone levels and a recommendation for you and your provider to consider in order to meet your desired goals.

Why do people check their hormone levels?

Checking estrogen and testosterone levels helps guide dosing changes in line with an individual's goals and helps ensure safety. Testosterone blockers (i.e. Spironolactone) can increase the risk of developing high levels of potassium in the body and low blood pressure. High potassium can be life-threatening and can cause muscle weakness, paralysis and abnormal heart rates. Periodic hormone and potassium level checks are important.

How often do people need to check their hormone levels?

Estrogen levels should be checked every 3 months during the first year you start taking estrogen and then every 6-12 months.

When is the best time to have hormone levels checked?

If you are taking gels, patches or pills, you may have your hormone levels checked at any time. If you are taking injectable hormones, like estradiol valerate, you may have your hormone levels checked 3-4 days after your last injection.

What are ideal hormone levels?

Everyone's body will process hormones a little differently, and your "ideal" level may look different than someone else's; it will vary depending on your dose, goals, and your baseline labs.

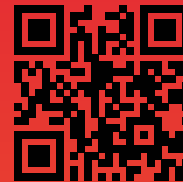
Often a medical provider might discuss that an estrogen level in a transfeminine or non-binary person may be less than 100-400 pg/mL though will vary person to person. Your result will be under Estradiol on your lab report. Depending also on your goals, a provider might say an ideal testosterone level for transfeminine or non-binary people may be <50-75ng/dL. Your result will be under Testosterone, serum on your lab report. Taking medication consistently can help keep testosterone suppressed.

Self Injection Training Videos

Courtesy of Howard Brown

Use your smartphone to scan the QR codes to launch each video.

Step 1: Drawing Up
youtu.be/ApWiQH4rzIA



Step 2A: Intramuscular Injection or IM
youtu.be/DJd02xCNNc0



Step 2B: Subcutaneous Injection of SubQ
youtu.be/FgCCO9Gqt1Q



Links to all 3 steps in English and in Spanish
bit.ly/3BdH8UI

