

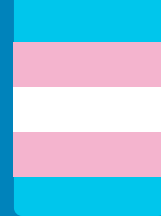
# Estrogen and Anti-Androgen Hormone Consent

Gender Pathways Clinic

NAME:

MEDICAL RECORD #:

DATE OF BIRTH:



## Risks and Side Effects of Feminizing Hormone Therapy

### Overview

Each person responds differently to hormone therapy medications. Like all medications they can cause side effects. Most side effects are mild. Others are more serious. We don't yet know all the side effects of taking these medications for a long time. In rare cases they can cause severe complications. Using these medications for the purpose of gender affirmation is an off-label use.

This means that: It has not been approved by the Food and Drug Administration (FDA). The medicine and dose (amount) recommended for you is based on your clinician's judgment and experience. Before we prescribe these medications, we will talk to you about:

- The risks and side effects.
- How to lower your risk of serious side effects.
- Identifying early signs of serious side effects so we can address them.

These medications can interact with other drugs and substances and cause medical problems that can be life-threatening. We need to know everything you take or use, including:

- Prescription medications
- Alcohol
- Diet supplements (Example: biotin)
- Herbs
- Other hormones
- Nonprescribed legal or illegal drugs
- Nicotine products

We need to know this information for your safety. This will not affect your ability to receive medical care.

## Medication Options

### Estrogen

The sex hormone estrogen causes physical characteristics that are typically female. We can prescribe it as:

- A patch on the skin that is changed once or twice a week (recommended for women over 40 or who have other medical conditions).
- A pill dissolved under the tongue once or twice a day.
- An injection every 1 to 2 weeks.

### Androgen blockers

Androgen blockers can reduce the effects of testosterone on the body. Androgen is the male sex hormone (testosterone). These medications may also be described as:

- Antiandrogens
- Testosterone blockers

Spironolactone is the androgen blocker most commonly used in the United States. It is relatively safe and effective at blocking the effects of testosterone.

Estrogen therapy and androgen blockers are most effective when taken together. Androgen blockers lower testosterone levels. This allows the estrogen to cause more changes.

## Medication Dosage

Hormone doses (amounts) vary from person to person. How much you take will depend on:

- How your body reacts to the medications.
- Your treatment goals. People have a wide range of goals related to how they want to look and feel. Talk with your clinician about your desired outcomes. Together we will develop a hormone treatment plan to help you achieve your goals safely. Working closely with your clinician will ensure that your hormones are in a healthy range for you.

Taking higher doses of hormones than prescribed:

- Does not increase the effects.
- Can increase the risk that you will develop serious side effects.

## Physical Changes

The amount of change and how long it takes is different for each person. It may take a few months or longer before you notice changes.

Effect Expected	Onset	Expected Maximum Effect
Body fat redistribution	3-6 months	2-5 years
Decreased muscle mass/ strength	3-6 months	1-2 years
Softening of skin/ decreased oiliness	3-6 months	Unknown
Decreased libido	1-3 months	1-2 years
Decreased spontaneous erections	1-3 months	3-6 months
Male sexual dysfunction (absent erections, infertility)	Variable	Variable
Breast growth	3-6 months	2-3 years
Decreased testicular volume	3-6 months	2-3 years
Decreased sperm production	Variable	Variable
Thinning and slowed growth of facial and body hair	6-12 months	>3 years
Male pattern baldness	No regrowth, loss stops 1-3 months	1-2 years
Mood changes	1-3 months	Variable

\*The timing of changes listed in table above are based on typical adult dosing. Changes with youth dosing will likely occur at different time periods. Check in with your doctor about your progress if you have any questions or concerns.

## Breast Development

Most people taking estrogen will have an increase in breast tissue. It can take several years for breasts to get to their full size, and the size can vary greatly. Any breast tissue that develops is permanent and will not go away even if you stop taking estrogen.

You should schedule:

- Regular breast health checks.
- Mammograms when recommended by your personal physician. It's not known at this time if taking estrogen increases the risk of breast cancer.

Some people notice a milky discharge from the nipples. Tell your physician if this happens. Estrogen can cause this, but we will need to rule out other causes.

## Other Effects

These medications cause some physical changes that are usually not permanent if you stop taking the medications. These include:

- Facial and body hair changes. Hair may be thinner and grow more slowly, but will not stop completely even if you take the medicines for years.
- Redistribution of body fat. Most people notice an increase of fat on the buttocks, thighs, and hips. You may lose some abdominal fat.
- Reduction in scalp hair loss (male pattern baldness). Estrogen may slow the process of hair loss, but cannot grow hair back.
- Decreased muscle mass and tone. Your upper body and arms may not be as strong as before.
- Softened skin.

Your body will make less testosterone. This may decrease your:

- Sex drive.
- Erections (how often and how hard).
- Testicle size. They may shrink to half their size.
- Semen volume (decreases).
- Fertility.

Some things won't change:

- Your facial hair will not go away completely. Electrolysis and laser hair removal are the most effective treatments to reduce or remove facial hair.
- The cartilage around your voice box ("Adam's apple") will not shrink.
- Your voice will not increase in pitch as a result of hormones. Some people find that speech therapy can help their voice and speaking style better match their gender identity and expression.

## Fertility

Having less testosterone in your body will affect your fertility in different ways. You may - or may not - be able to produce sperm mature enough to cause pregnancy. It is possible these changes will be permanent.

If you're having sex that could result in a pregnancy, continue using birth control if pregnancy is not desired.

Talk to us about any plans or hopes about starting a family, so we can discuss your options.

You might consider collecting and freezing sperm if you're interested in having biologically related children in the future. The best time to store sperm is before you begin taking hormones.

## When Estrogen is Not the Best Choice

Estrogen may not be the best choice if you have certain medical conditions. It should not be used by anyone who has had or has:

- An estrogen-dependent cancer. This means that cancer cells grow in response to estrogen.
- Blood clots that could, or did, travel to the lungs.
- End-stage chronic liver disease (cirrhosis).

We are careful about prescribing estrogen to anyone who uses nicotine products or is obese. It should also be used with caution by anyone who has:

- A strong family history of breast cancer.
- A family history of other cancers that grow more quickly when estrogens are present.
- Diabetes.
- Eye problems such as retinopathy.
- Heart disease or heart valve problems. This includes a tendency for blood to clot easily.
- Hepatitis (Inflammation of the liver)
- High cholesterol.
- Kidney or liver disease.
- Migraines or seizures.

You are most likely to have dangerous side effects if you:

- Smoke (or use other nicotine products)
- Are overweight
- Are over 40 years old
- Have a history of blood clots
- Have a history of high blood pressure
- Have a family history of breast cancer

## Blood Clots

Estrogen is associated with a risk of blood clots. Blood clots can cause a number of problems including:

- Chronic problems with veins in the legs.
- Heart attack.
- Blood clot in the lung (pulmonary embolism). This may cause permanent lung damage or death.
- Stroke. A severe stroke can cause permanent brain damage or death.

There are a number of ways to reduce your risk:

- Stop smoking. Smoking greatly increases your risk for developing blood clots, especially if you are over 40. We strongly recommend that you stop smoking completely if you want to start taking estrogen. We can help you quit.
- Use the patch. People who receive estrogen through a patch on the skin are less likely to develop blood clots.

Get blood tests. We will order lab tests to monitor your blood levels of estrogen. Keeping those levels in the safe range can reduce the risk of a blood clot.

## Common Side Effects of Estrogen

Common side effects of estrogen include:

- Mood changes. Many people notice that they feel more emotional after starting estrogen. However, if you feel depressed or hopeless, please let us know so that we can offer support and treatment.
- Nausea and vomiting. Some people report this when they begin taking estrogen. Nausea can occur if we adjust your dose. We can treat these symptoms by reducing the dose or prescribing a different form of estrogen. An anti-nausea medication may also help.
- Headaches or migraines. This symptom is more likely to develop in people who already have migraines. It's important to talk to your doctor about your migraines before you begin estrogen therapy or if you develop them after you start estrogen.

## Less Common Side Effects of Estrogen

Abnormal liver blood tests. Estrogen can cause abnormal liver blood tests. This is usually temporary. However, these medications can cause liver damage. You should be checked for possible liver damage as long as you take them.

Gallstones. You may need surgery to remove your gallbladder.

Diabetes. This is more likely if you have other risk factors for diabetes, like a family history of diabetes or obesity.

High blood pressure and heart disease. We will check you for high blood pressure before estrogen treatment begins. We can work with you to control high blood pressure with diet, lifestyle changes, and/or medication.

Noncancerous tumor of the pituitary gland. This is very rare and it's not yet known if taking estrogen increases this risk. It is not usually life-threatening but can damage vision and cause headaches. Estrogen can cause your pituitary gland to produce more of the hormone prolactin. We can monitor the level of prolactin to screen for problems with the pituitary gland if you have any of these symptoms.

## Risks and Side Effects of Androgen Blockers

Spironolactone affects the balance of water and salts in the kidneys. This may:

- Increase the amount of urine you produce.
- Increase thirst.
- Reduce blood pressure.
- Rarely, increase potassium levels in the blood. This can cause heart rhythm changes that may be life-threatening.

Some of these medications can make it difficult to determine the results of prostate cancer tests. If you are over 50 years old or have a strong family history of prostate cancer, we will schedule annual prostate checks as your clinician recommends.

Other side effects of lowered testosterone may include:

- Decreased libido
- Decreased frequency and quality of erections
- Fatigue
- Depressed mood
- Low bone density

## Preventing Medical Complications

To get the best and safest results from feminizing hormone medications, it's important for you to:

- Take the medications as prescribed. Taking a higher dose than prescribed will not make changes happen faster and can increase your risk for serious health problems and other undesired effects. Your clinician will prescribe hormones based on your goals and what is safest for you. Everyone's body responds differently to these medications. If you feel your dose is too low, talk with your clinician.
- Tell your clinician if you have any problems or are unhappy with the treatment.
- Follow through with all scheduled physical exams and blood tests to check for any side effects. Your clinician may request an appointment with you every few months in the beginning, to help ensure your hormone levels are in the desired range and you are getting the desired effects.
- Talk with your clinician if you have or develop any of the conditions that make it risky to take these medications. Your physician can determine whether it's safe to start or continue them and may suggest you change the way you take your medication or stop the medications. This may happen if the side effects are severe or there are health risks that cannot be controlled.
- Stop taking estrogen 2 weeks before any major surgery or when you may not be active for a long time. This will lower the risk of getting blood clots. You can start taking it again a week after you are back to normal or when your clinician says it's okay.
- If you decide to stop taking hormone therapy, discuss it with your clinician.

It is important to keep others safe from these medications.

- Do not share the medications with anyone.
- Keep them in a safe location away from children.
- Do not share needles with anyone or use them more than once. Dispose of needles properly in the proper sharps containers.

**Based on all this information:** (check one)

- ☐ I want to begin taking feminizing hormone therapy
- ☐ I do not want to begin taking feminizing hormone therapy

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PATIENT SIGNATURE

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DATE

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CLINICIAN SIGNATURE

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DATE