



## Masculinizing Hormone Therapy

People that are born with a female body can take hormones and medications that give them a more masculine appearance. Here is a short overview of how these medication works.

### What's Involved?

There are a number of different ways of taking testosterone hormone therapy including injections, gels, patches, and implants. While many people prefer to avoid needles, injectable testosterone is by far the cheapest method and therefore more commonly used. You can do your weekly injections yourself or have a friend or family member do them for you. We will teach you and/or your support people how to give injections safely, and your prescription will come with plenty of sterile supplies. It is really important that you do not share needles and always inject as safely as possible. If cost isn't a barrier, we are happy to provide information about prescriptions for gels, patches, and implants.

### What Changes Can You Expect?

Masculinizing hormone therapy causes a bunch of emotional and physical changes – you might be really excited about some of them and you might not like others. Also, not everyone will have the same changes. A lot depends on your family background, ethnicity, lifestyle, and other factors. While there is no way to pick and choose how your body will change on hormone therapy, there is a lot you can do in terms of diet, exercise, and herbal supplements to take good care of your body and lessen any unwanted side effects. Below are common changes seen with masculinizing hormone therapy.

#### Skin

Within the first few weeks of hormone therapy, your skin will become oilier and thicker, and you will probably have new or worse acne. Your pores will become bigger and create more oil. Your skin may feel pain, temperature, and other sensations differently than before. Also, within the first few weeks you will start sweating more and your body odor and urine will smell different.

#### Hair

In the first year after starting hormones you may begin growing new, thicker, and darker body hair on your chest, stomach, arms and legs. Facial develops more slowly with full growth taking up to four years. Keep in mind that facial and body hair growth in both transgender and cis-gendered men vary significantly based on ethnic background – look to the men in your family to get a sense of what you might expect. Some people on hormones may also experience male pattern baldness, usually after several years of hormone therapy. Even more common is a receding hairline at the temples.

#### Body Shape

Changes in where your body stores fat will begin in the first few months on hormones and increase over time. Fat will shift from your hips, bottom and chest to your stomach, giving you a less soft and rounded body shape. An increase in the amount of muscle on your body will also give you a more angular shape. Changes in body fat storage will make your face look different. This happens more slowly, over one or two years. Eventually, your face will have a more angular look.

#### Chest

Some people will notice that their chest becomes slightly smaller while others will have no change in chest size at all. If the size of your chest causes you a lot of discomfort, surgery is an option although it can be expensive. If you decide to have surgery, consider waiting until you have been on hormones for six months so that any size changes that are going

to happen have had a chance to occur. If you bind your chest, try to use a good compression vest or binder, or wear several layers of sports bras. Binding with wraps, bandages and tape can cause pain and bad skin infections. No matter what you use to bind, make sure you are getting enough unbound time each day, and be sure not to bind too tight. Very tight chest binding can cause health problems, reduce the amount of air you are able to get in, and cause changes to breast tissue that make top surgery more difficult later.

## **Voice**

Most people start to have voice cracking and deepening in the first 3-6 months of therapy. It takes at least a year for your voice to fully “drop”. The level of deepening varies from person to person – for example, some people eventually read as male over the phone while others continue to be read as female over the phone.

## **Physical Strength**

You will start to gain muscle mass within the first few months of hormone therapy. You will also start to notice an increase in your upper body strength. Although you will feel strong, you should be careful to increase your workouts gradually. If you lift weights, you can prevent serious damage to your tendons by increasing weight slowly. Focus more on number of repetitions than weights lifted.

## **Emotions**

Every person responds differently to starting hormones, but all you need to do is think back to puberty to remember how rough big emotional changes can be. Since this change is a welcome one which you have some control over, you probably won't feel like a teenager all over again. But you may feel a lot of emotions, and you may notice that some of your interests and ways of interacting with others will begin to change. Remember that it's never a bad idea to get the support of a therapist when major changes are going on in your life, even if they are changes you have worked hard to make happen.

## **Sexual Function**

Within a month of starting hormone therapy your clitoris will begin to grow and you will probably feel an increase in your sex drive. Your orgasms may feel different, and you may feel yourself drawn to different sex acts than in the past. It can be fun to explore different ways of being sexual, different ways of reaching orgasm, and just get a feel for what is going to work for you. You can do this with your sexual partner(s) and also by yourself – masturbation can be very helpful during this time of change.

Your clitoris will continue to grow over the first year of hormone use – the total amount of clitoral growth varies a lot from person to person. The inside of the vagina also changes with hormone therapy. You may be less “wet” during sex and the skin inside your vagina may get flatter and thinner. This is called atrophy which means that the cells of vaginal tissue are shrinking. If atrophy causes pain with penetration, or an uncomfortable dryness during the day, estrogen cream can be put inside the vagina without undoing or stopping the masculinizing effects of hormone therapy.

## **Periods**

Most people stop having their periods one to six months after starting hormones. The lining on the inside of your uterus with thin out and your ovaries may or may not stop releasing eggs each month. Before your periods stop, however, you may have a few weird or heavy periods. Once you have stopped having monthly bleeding you should let your healthcare provider know if you start bleeding again despite taking your hormones on time.

## **Reproductive Function**

It is important for you to know that the changes to your uterus and ovaries can make it difficult or impossible to have biological children. This reduced fertility can be permanent. There is no way to know for sure if you will regain full fertility, so you should plan ahead with the assumption that you won't. Even though you should take the likelihood of infertility seriously, you can't rely on this for a method of birth control. If you are having sex with someone capable of getting you pregnant, you should use a reliable birth control method. It is possible to get pregnant while taking testosterone, and high levels of testosterone can cause serious problems for a developing fetus. Unfortunately, removing and freezing your eggs before starting hormone therapy is not very realistic at this time – But see the “What's Permanent and What's Not” section below for more information on conception after masculinizing hormone therapy!

## How Might it Impact Your Health?

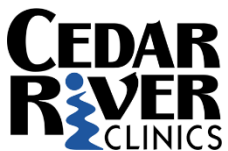
There is very limited research on the long term effects of masculinizing hormone therapy but it's always likely that it may worsen cholesterol problems, obstructive sleep apnea (along with the snoring that comes with it!), obesity, and acne. It is also believed to increase your risk of cardiovascular disease, and diabetes to be more like that of a cisgender male. You will have a higher risk of stroke, as testosterone can cause your blood to become thicker. With smoking, that risk becomes even higher. Sometimes an unhealthy thickening of the uterine lining occurs with testosterone use and requires monitoring or treatment. Your risk for cervical cancer and breast cancer does not change with hormone therapy – cervical cancer risk is directly related to your sexual practices, and breast cancer is based on many things including family history. You are still at risk for breast cancer even if you have chest surgery, so you should continue to have chest exams done by your health provider once a year. Your risk for ovarian cancer may increase slightly on hormones.

In order to protect your health, it is important that you eat a healthy diet, stay active, quit or reduce smoking, and come to all of your follow up appointments. Because taking testosterone can cause worsening of existing mental health conditions, it is also important to let us know if you experience major changes in mood while taking hormones.

## What's Permanent and What's Not?

Many of the physical changes caused by masculinizing hormone therapy are permanent. Body shape, muscle mass, and physical strength may change back completely or partially if you stop taking hormones. Voice changes, facial hair growth, and male pattern baldness usually do not change back.

There has been no research on the long-term impact of hormone therapy on fertility, so we do not know if your fertility would return to normal after stopping hormone therapy. We do know that a growing number of people are having successful pregnancies after getting off testosterone, which is great news. If you want to get pregnant, it is important to stop taking hormones before you start trying. It may or may not be easy to get pregnant. For some people, testosterone causes changes to the ovaries which make it harder for them to release eggs for fertilization, but there are medications and fertility treatments that can help. If you are considering pregnancy, let us know – we are happy to help you plan for a family!



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