

Patient information from BMJ

Last published: Aug 07, 2024

Gender-affirming care in adults: hormone treatment

For some people, their internal sense of gender identity may not match their birth sex. This is known as **gender incongruence**. When this causes a person distress, it's known as **gender dysphoria**.

People experiencing gender incongruence and gender dysphoria may take steps to live and be accepted as a person of their experienced gender. This is known as **gender transition**. For more background information on this, see our patient information titled: *Gender incongruence and Gender dysphoria in adults*.

Gender transition might involve medical or surgical treatment, but this varies and not every person will choose to have treatment.

The main treatments available are **hormone treatment** and **surgery**. Other treatments include: hair removal, speech and language therapy, and supportive counselling.

This patient information will focus on **hormone treatment** in **adults**.

What are hormones?

Hormones are substances that help to control major functions in the body. Some hormones are linked to sexual development (changes to your body that start happening at puberty) and reproduction (the process of having babies). These are known as **sex hormones**.

The main female sex hormone is **oestrogen**. This hormone works on different processes including the growth of breasts and body hair, and changes to body shape (e.g., wider hips).

The main male sex hormone is **testosterone**. This hormone plays a role in processes such as the production of sperm, growth of body hair, and development of muscle strength.

What is gender-affirming hormone treatment?

Hormone treatment can help people with gender incongruence and gender dysphoria look and feel more like a person of their experienced gender.

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It involves taking supplements of the sex hormone consistent with your experienced gender. This means that:

- if you are a **transgender man** and you have hormone treatment, you will take **testosterone**, and
- if you are a **transgender woman** and you have hormone treatment, you will take **oestrogen**. In some cases, you may also be treated with medicines that reduce the level of testosterone in your body.

Who is gender-affirming hormone treatment for?

Having hormone treatment is a major decision because it causes **long-term** changes in your body.

Choosing to have treatment is an individual and personal choice. Not everyone with gender incongruence and gender dysphoria will want hormone treatment.

If you decide you want this treatment, there are criteria that doctors use to help understand whether it is right for you. They will look at whether:

- you clearly have gender incongruence and how long you have had it for
- you are in the right state of mind to agree to hormone treatment
- other possible causes of gender incongruence have been ruled out
- you have any mental health or physical conditions that could affect your hormone treatment.

They will also make sure you understand that hormone treatment affects your ability to have children and that you've looked into your options.

In some cases, your doctor might not want you to start hormone treatment until you have **changed gender role**, even if they think you fit the criteria. Changing your gender role often means:

- living as a person of your gender identity
- changing your name and sex on legal documents (if possible, depending on where you live)
- asking your friends, family, and colleagues to treat you as a person of your gender identity.

Some doctors think this is useful because it allows you to experience what life might be like as a person of your experienced gender before hormone treatment. Regrets after treatment are rare, but do happen; this is more likely if you're struggling with changing your gender role.

If you do choose to have hormone treatment, you will have psychological support from a team of gender identity specialists.

Your treatment team will help you understand what hormone treatment involves, and what you can expect from it.

What does gender-affirming hormone treatment do?

When you have gender-affirming hormone treatment you take the sex hormone of the **other** sex. This:

- **reduces** the hormone level of your birth sex, and
- **increases** the hormone level of the other sex.

The result is that you will look and feel more like a person of your experienced gender. But it's important to keep in mind that these changes will be different for everyone.

Hormone treatment aims to bring out some of the physical changes of the other sex that happen with puberty. But it can't reverse the changes that have already happened to you because of puberty.

For transgender men taking testosterone (male sex hormone)

In the first **1 month to 6 months**, you may start to notice the following changes:[\[1\]](#)

- Changes to your menstrual cycle. Your periods will gradually stop happening altogether.
- Increased sexual desire.
- Increased skin oiliness (which can cause acne in some people).
- Changes to your body fat. You will probably have less fat around your bottom, and more fat around your middle.
- Changes in your vagina, such as dryness, burning, and itching. This can be treated with special moisturizers.
- Enlargement of the clitoris (called clitoromegaly).

You may notice the following changes starting within the first **6 months to 1 year**:

- More facial and body hair.
- Scalp hair loss. This only affects some people.
- Increased muscle mass and physical strength.
- Deepening of your voice.

The changes that occur with taking testosterone can take several years to reach their full effect. It's also important to remember these changes will be different for everyone.

For transgender women taking oestrogen (female sex hormone)

Within the first **1 month to 3 months**, you may start to notice the following changes:[\[1\]](#)

- Reduced sexual desire.
- Fewer sudden or 'random' erections.

Within the first **3 months to 6 months**, you may start to notice the following changes:

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- Changes to your body fat. The fat around your bottom will probably increase, and you may have less fat around your middle.
- Less muscle mass and reduced physical strength.
- More skin softness and less skin oiliness.
- Breast growth.
- Smaller testicles.

Within the first **6 months** to **12 months**, you should notice reduced hair growth on your face and body.

Other effects from taking oestrogen include:

- being less able to get an erection
- producing less sperm
- more hair growth on your head.

The changes that occur with taking oestrogen can take several years to reach their full effect. It's also important to remember these changes will be different for everyone.

Safety of hormone treatment

As with any treatment, gender-affirming hormones can increase your risk of certain conditions.

For **transgender men** taking testosterone, there is a higher risk of:

- polycythaemia (a condition where there is an abnormally high level of red blood cells in the blood)
- liver dysfunction (i.e., your liver stops working the way it should)
- coronary artery disease (a condition that affects the blood vessels to your heart)
- cerebrovascular disease (a condition that affects the blood vessels to your brain)
- breast or uterine cancer.

In some situations, transgender men **won't** be able to have treatment with testosterone at all. This will be the case if:

- you are pregnant
- you already have unstable coronary artery disease or polycythaemia.

For **transgender women** taking oestrogen, there is a higher risk of:

- thromboembolic disease (i.e., developing blood clots)
- developing a macroprolactinoma (a non-cancerous tumour in a small gland in the brain that produces the hormone prolactin) breast cancer
- coronary artery disease (a condition that affects the blood vessels to your heart)

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- cerebrovascular disease (a condition that affects the blood vessels to your brain)
- gallstones
- hypertriglyceridaemia (i.e., higher levels of fats in the blood).

Your doctor will discuss with you whether it is safe for you to have hormone treatment.

Fertility and contraception

Hormone treatment can affect your fertility. Before you start this treatment, you should be given the chance to store your eggs or sperm. This gives you the option of having fertility treatment in the future if you choose to.

Even though hormone treatment can affect your fertility, you can't rely on it as an effective form of contraception. So it's important you consider this if you are sexually active.

What will happen?

If you have hormone treatment, you will have **check-ups** every few months for the first year, and every 6 months to 12 months after that. You need these check-ups to make sure that the treatment is working as expected.

Hormone treatment can increase your risk of certain conditions so it's important that you live as **healthy** a lifestyle as possible by keeping active and not smoking, for example.

Transgender people may experience stigma and discrimination. This can affect mental health and make some personal and professional relationships difficult to deal with. If you would like to talk to other people about their experiences, there is a lot of **support**. For example, in the UK, transunite.co.uk - a directory of more than 100 local support groups - is available.

Your treatment team might be able to put you in touch with a support group in your area, or you could search online.

References

1. Hembree WC, Cohen-Kettenis PT, Gooren L, et al. Endocrine treatment of gender-dysphoric/gender-incongruent persons: an Endocrine Society Clinical Practice Guideline. *J Clin Endocrinol Metab*. 2017 Nov 1;102(11):3869-903.

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