BMJ Best Practice

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Gender dysphoria in adults: hormone treatment

Some people feel deeply unhappy living as a person of the gender that they were born. When these feelings cause constant distress, it's called gender dysphoria.

Most people with gender dysphoria 'cross-dress' some of the time. Others wish to live and be accepted as the gender of their choice all the time.

Why hormone treatment?

Many people challenge the accepted rules of how the different sexes (genders) should behave and live at some time in their lives. This is called gender non-conformity.

Gender dysphoria is different. It means that someone feels so uncomfortable being the gender that they were born that it causes them constant distress and unhappiness. For more background information on gender dysphoria, see our leaflet *Gender dysphoria: what is it?*

Some people seek medical treatment to help them live as their chosen gender. This can include hormone treatment.

Hormones are substances that help to control most of the major functions in the body. For example, some of them control growth and others help strengthen the immune system.

Some hormones are linked to gender and to sexual development and behaviour.

The most important 'female' hormone is **oestrogen**. This hormone affects young women's sexual development during puberty. For example, among other things it helps with the growth of ovaries and breasts.

The most important 'male' hormone is **testosterone**. It plays a role in men's sex drive, in the production of sperm, and in the growth of strong muscles.

Having hormone treatments for gender dysphoria means taking supplements of the opposite sex hormone to your birth gender. This means that:

• if you were born female and you have hormone treatment for gender dysphoria, you will take testosterone, and

• if you were born male and you have hormone treatment for gender dysphoria, you will take oestrogen.

Hormone treatments can help people with gender dysphoria look and feel more like their gender of choice. These people usually feel unhappy having the body of someone of the sex they don't want to be. For example:

- someone with gender dysphoria who was born female might be deeply unhappy about having breasts, and
- someone with gender dysphoria who was born male might feel deeply unhappy about having facial hair.

Before treatment

Having hormone treatment for gender dysphoria is a major decision, because it can cause long-term changes in your body. So if you choose to have this treatment you will have psychological support from gender identity specialists.

Your treatment team will help you understand:

- what hormone treatment involves, and
- what you can expect from it.

Your team will also need to be certain that the treatment is right for you. For example, your treatment team might not want you to start hormone treatment until you have changed gender role. Changing your gender role means:

- living as your chosen gender
- changing your name and sex on legal documents
- asking your friends, family, and colleagues to treat you as your chosen sex.

What does hormone treatment do?

When you have hormone treatment you take the sex hormone of the opposite sex. This:

- reduces your levels of the hormones of your birth gender, and
- increases your levels of the hormones of your chosen sex.

The result is that you will look and feel more like your chosen gender. These are the changes that you can expect and roughly how long those changes take.

For people born female taking male hormones

In the first six months of hormone treatment you will notice the beginnings of the following changes:

• Changes in your menstrual periods. Your periods will gradually stop happening altogether.

- Increased sexual desire.
- You will have more face and body hair. This can take up to five years to happen fully.
- Your skin will become more oily. This can cause acne in some people. The full effect takes a year or two.
- You will become more muscular. This takes between two and five years to happen fully.
- Your body fat will have more of a male distribution (spread). So you will probably have less breast and bottom fat, and possibly more around your middle. This takes between two and five years to happen fully.
- You will notice changes in your vagina, such as dryness, burning, and itching. This takes between one and two years to happen. This can be treated with special moisturisers.

You will notice the following changes starting within the first year:

- Your voice will get deeper. This takes a year or two for the full effect.
- Enlargement of the clitoris (called clitoromegaly). The full effect takes a year or two.
- You might notice some male pattern hair loss. This only affects some people.

For people born male taking female hormones

Within the first one to three months you will notice the following changes:

- You have reduced sexual desire. The full effect takes three to six months.
- You will have fewer sudden or 'random' erections. The full effect takes three to six months.

You will notice the following changes in the first three to six months:

- Your body fat will have more of a female distribution (spread). So you will probably have more breast and bottom fat, and possibly less around your middle. This takes between two and three years to happen fully.
- You will become less muscular and less physically strong. The full effect takes a year or two.
- Your skin will become softer and less oily.
- Your breasts will develop. The full effect takes two to three years.
- Your testicles will become smaller. The full effect takes two to three years.

Within the first six to 12 months you should notice reduced hair growth on your face and body. The full effect can take several years.

Other effects that take a variable amount of time include:

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

Safety of hormone treatment

Unfortunately, not everyone who wants hormone treatment can have it. This is because hormone treatment can have side effects that can make some medical conditions worse.

For example, whatever your birth sex, you will probably not be able to have hormone treatment if you have certain heart or blood-circulation problems. You can talk to your doctor about whether it is safe for you to have hormone treatment.

Fertility

Before you start hormone treatment you should be given the chance to store your eggs or sperm. This gives you the chance to have fertility treatment in the future if you choose to.

What will happen?

If you have hormone treatment you will have check-ups every few months for the first year, and every six to 12 months after that.

You need these check-ups to make sure that the treatment is working as expected, and to check for other things that can be affected by hormone changes, such as your cholesterol levels, and your bone strength.

Hormone treatments can cause problems with the heart and blood vessels in some people. So it's important that you live as healthy a lifestyle as possible by, for example, keeping active and not smoking.

If you would like to talk to other people about their experiences of transgender issues, there is a lot of support online. For example, in the UK, transunite.co.uk is a directory of more than 100 local support groups.

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

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