

# Transgender (trans) people and osteoporosis

## What is osteoporosis?

Osteoporosis occurs when the struts that form the mesh-like structure inside bones become thin. This causes the bone to become fragile and break easily, even after a minor bump or fall. You might hear these breaks described as 'fragility fractures'. The terms 'fracture' and 'broken bone' mean the same thing.

Fractures can occur in many parts of the body, but they are most common in the wrists, hips and spine. These broken bones can cause pain. Spinal fractures can also cause height loss and a curved spine.

Transgender or 'trans' people (people with gender dysphoria) have an intense desire to live and be accepted as a member of the opposite sex of their birth gender.

You may be uncomfortable with your gender and wish to have treatment to make your body correspond to that of your preferred sex. This gender confirmation treatment might involve surgery or sex hormone therapy.

## Sex hormones and bones

Sex hormones are important for regulating the growth of our skeleton and maintaining the strength of our bones. The female hormone oestrogen and the male hormone testosterone have positive effects on bone in both men and women.

These sex hormones are responsible for changes in bone growth and development during childhood and adolescence. Later in life, though, levels of these hormones decline naturally.

Some drug treatments or surgery might affect hormone levels too, and low levels of oestrogen in particular can result in continuing bone mineral loss and an increased risk of breaking a bone (fracture).

In general, women are more at risk of developing osteoporosis because the reduction of sex hormone at the menopause is more rapid and profound than the age-related decline in testosterone in men. Nevertheless, osteoporotic fractures are frequent in both sexes.

## Does treatment for gender dysphoria increase the risk of osteoporosis?

Surgical treatment for gender dysphoria removes the natural source of sex hormones and will result in osteoporosis unless hormone therapy, sometimes called cross-sex hormone treatment is taken. If the level of these hormones is inadequate, the risk of osteoporosis will be increased.

To help maintain your bone strength your hormone replacement treatment (testosterone for trans men and oestrogen for trans women) will be monitored carefully, and may be continued long-term. If your hormone replacement is stopped or your levels of replacement become too low, your doctor may need to reassess your bone health.

Your individual risk of fracture will depend on your particular pattern of hormone replacement alongside any other general risk factors for osteoporosis you may have. To assess your individual risk your doctor or other health professionals advising you, will consider your bone density, in combination with all the other risk factors that research has shown are linked to an increased risk of fracture. This might be referred to as a 'fracture risk assessment'.

When a trans woman reaches the normal age that menopause would occur, a decision will be made about continuing treatment. This decision will depend on your feelings and having discussions with your consultant.

The long-term effects of these medications on the risk of breaking a bone isn't yet fully known.

Some recent research shows that treating children or young people with drug treatments that lower their hormone levels may delay them reaching a peak or maximum bone mass.

For more information on other risk factors, read our booklet, '**Getting your bones checked to keep them healthy**', or visit our website.

## Should I have a bone density scan to see if I might have problems with my bones?

Not necessarily. So long as you are continuing your hormone treatment you'll be doing the best for your bone health. Scanning can be useful in some situations, so you might need to discuss this with the doctor who's looking after you. The scan itself is simple, painless and safe.

## Will I have any adverse effects from taking cross-sex hormone replacement therapy?

There aren't many side effects. Most people are comfortable on the hormones they are prescribed, but there might be small risks. You may want to discuss any worries with your doctor.

Hormone therapy should only be used with medical supervision where its effects can be monitored.

## Will I need an additional treatment to reduce my fracture risk?

If you have an increased risk of fracture, then your doctor might recommend an osteoporosis drug treatment to reduce this risk.

These treatments are only available from GPs or consultants.

Lifestyle factors too can influence your bone health. A well-balanced healthy diet with enough calcium is important as well as, adequate vitamin D. Weight bearing and resistance exercise too, is important in maintaining healthy bones so it's helpful if you can find a variety of sports activities or exercise that you can enjoy on a regular basis.

For more information on healthy living for strong bones and osteoporosis, read our booklet, '**Better bone health for everybody**' or visit our website.

## Getting more information and support

We hope this fact sheet will help you feel more informed and more confident when discussing your bone health with your medical team.

For more information about osteoporosis and bone health, including fact sheets on all available drug treatments, visit our website at [theros.org.uk/info](https://theros.org.uk/info) or order more of our printed publications.

If you need more information or support, talk to your healthcare professional.

You can also call our specialist Helpline nurses with any questions or concerns about bone health or living with osteoporosis, for free, on **0808 800 035**, or email them at [nurses@theros.org.uk](mailto:nurses@theros.org.uk)

You may also find the following organisations helpful:

### The Gender Trust

Advice and support for transgender people, and for their partners, families, carers, and allied professionals and employers.

[gendertrust.org.uk](https://gendertrust.org.uk)  
[gina@gendertrust.org.uk](mailto:gina@gendertrust.org.uk)

### Gender Identity Research & Education Society (GIRES)

Information for transgender people, their families and the professionals who care for them.

3 Queen Anne's Gardens, Leatherhead,  
Surrey KT22 7JE

[gires.org.uk](https://gires.org.uk)



## Content reviewed: March 2018 (updated December 2021)

This information is based on the latest evidence and clinical practice. It should not replace advice from your own healthcare professionals.

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**01761 471 771**



[info@theros.org.uk](mailto:info@theros.org.uk)

To contact our specialist nurses:



**0808 800 0035**



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