



What is osteoporosis?

Osteoporosis occurs when the struts which make up the mesh-like structure within bones become thin causing them to become fragile and break easily, often following a minor bump or fall. These broken bones are often referred to as 'fragility fractures'. The terms 'fracture' and 'broken bone' mean the same thing. Although fractures can occur in different parts of the body, the wrists, hips and spine are most commonly affected. It is these broken bones or fractures which can lead to the pain associated with osteoporosis. Spinal fractures can also cause loss of height and curvature of the spine.

Transgender/Trans people (people with gender identity disorder) 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 (gender dysphoria) 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 in regulating the growth of our skeletons and for 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 particularly oestrogen can result in a 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 identity disorder 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 children/young people treated with drug treatments that reduce hormone levels may delay reaching a peak or maximum bone mass.

For more information on other risk factors read the 'All about osteoporosis and bone health' book from the charity or see 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, 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 because of taking cross-sex hormone replacement therapy?

There aren't too many side effects. Most people are comfortable on the hormones they are prescribed however there might be small risks. You might 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 a healthy living for strong bones and osteoporosis drug treatments read the 'All about osteoporosis and bone health' book from the charity or see our website.

The **National Osteoporosis Society** is the only UK-wide charity dedicated to improving the prevention, diagnosis and treatment of osteoporosis and fragility fractures. The Charity receives no Government funding and relies on the generosity of individuals to carry out its vital work.

For osteoporosis information and support contact our Helpline:

 **0808 800 0035**

 **nurses@nos.org.uk**

To become a member or make a donation:

 **01761 473 287**

 **join online at www.nos.org.uk**

To order an information pack or other publications:

 **01761 471 771**

 **info@nos.org.uk**

or download from our website at www.nos.org.uk

Useful Contacts

The Gender Trust

76 The Ridgeway Astwood Bank Redditch
Worcestershire B96 6LX

Tel: 01527 894838

www.gendertrust.org.uk

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

Gender Identity Research & Education Society (GIRES)

Melverley, The Warren, Ashted, Surrey KT21 2SP

Tel: 01372 801554

www.gires.org.uk

Provides information for transsexual people, their families and the professionals who care for them.

This fact sheet is one of a range of publications produced by The National Osteoporosis Society. If you would like more general information about osteoporosis see our booklet *All about Osteoporosis*.

This information reflects current evidence and best practice but is not intended to replace the medical advice provided by your own doctor or other health professional.