

# Am I at risk of osteoporosis and fractures?



## For osteoporosis information and support contact our Helpline:

-  **0845 450 0230** or **01761 472721**
-  **nurses@nos.org.uk**

## To order an information pack or other publications:

-  **0845 130 3076** or **01761 471771**
-  **info@nos.org.uk**

**Our publications are available free of charge, but as a charity, we would appreciate any donation you are able to give to support our work. Or why not join us as a member to receive our quarterly magazine, packed with useful information, tips and the latest medical news?**

-  **01761 473287**
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## What can I do if any of these risk factors apply to me?

- Make lifestyle changes such as keeping active and exercising to increase muscle strength and improve balance and coordination to prevent falls.
- Discuss medicines that cause osteoporosis with your doctor.
- Discuss pre-existing medical conditions.
- Discuss whether investigations for diseases are needed.
- Talk to your doctor about a fracture risk assessment.
- Talk to your doctor about whether a bone density scan is needed.
- Discuss whether an osteoporosis drug treatment is needed.

If you have said yes to a few of the risk factors overleaf you may be at increased risk of breaking bones, especially as you move into later life. You may be referred for a bone density scan to help decide if drug treatments are needed. When doctors are deciding who needs a drug treatment to reduce their risk of a fracture, they are now using a fracture risk assessment rather than simply diagnosing osteoporosis on a bone density scan. This assessment uses combinations of risk factors such as those described overleaf, as well as bone density scan results, to assess an individual's risk of breaking a bone. Depending on the results of this assessment, drug treatments might then be prescribed to help strengthen bones and make fractures less likely. These drugs have been proved to reduce the risk of fractures occurring.

## Other factors which increase the risk of broken bones include:

### Previous fractures

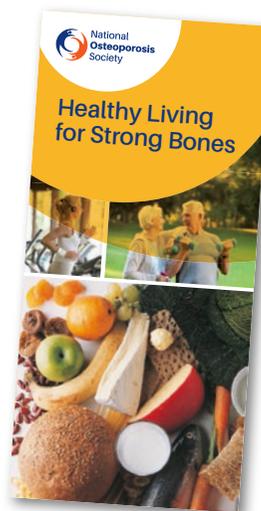
If you have already broken bones easily, including in the spine, then this means it is very likely that your bones are fragile and you are more likely to have fractures in the future. This is one of the most significant 'risk factors' for breaking another bone.

### Falling

Older people who are at risk of falling are more likely to have fractures, especially of the hip, after the age of 75 years.

### Inadequate Calcium and/or vitamin D

Calcium and vitamin D are essential for building and maintaining strong bones. Some people don't get enough of these nutrients. For further information please see our leaflet *Healthy Living for Strong Bones*.

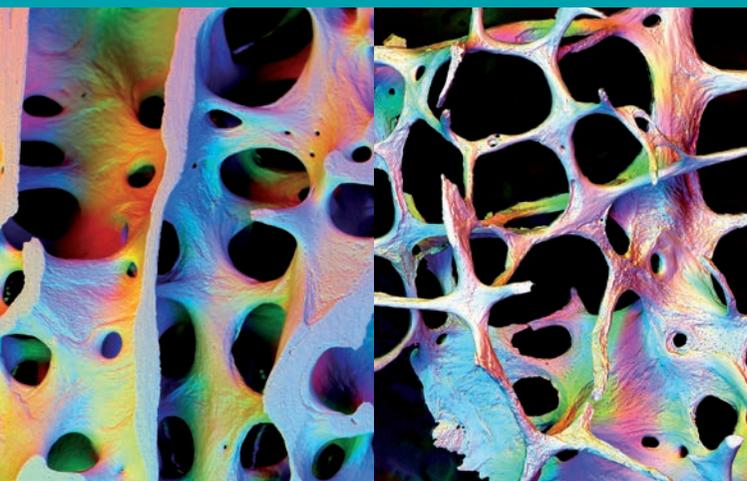


# What is osteoporosis?

Osteoporosis occurs when the struts which make up the mesh-like structure within bones become thin causing them to become fragile and break easily 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.

Strong dense bone.

Fragile osteoporotic bone.



There are many factors that can increase your risk of osteoporosis and broken bones. These include:

- Genes** Bone health is dependent on inherited genes from our parents.
- Age** As we get older, bones become more fragile and more likely to break.
- Race** People who are of Afro-Caribbean origin are at lower risk than those of Caucasian or Asian origin.
- Gender** Women are at greater risk than men because they have smaller bones and experience increased bone loss around the time of menopause.
- Low body weight** If you have a low BMI (body mass index) below 19kg/m<sup>2</sup> you are at greater risk of developing osteoporosis and fractures. The practice nurse at your doctor's surgery will be able to help you with this.
- Smoking** Current smokers are more likely to break bones.
- Alcohol** Excessive alcohol consumption appears to be a significant risk factor for osteoporosis and fractures. The current daily recommended limit, as suggested by the Food Standards Agency, is two to three units for women and three to four units for men. (A unit equals one small glass (125ml) of wine or half a pint (300ml) of beer or cider.)

## Some medical conditions:

- Rheumatoid arthritis.
- Low levels of the sex hormone oestrogen in women due to:
  - Anorexia nervosa
  - Early hysterectomy (before 45) with removal of ovaries
  - Turner syndrome
  - Excessive exercise.
- Low levels of the sex hormone testosterone in men can occur for a number of reasons including following surgery for some cancers. Some rare conditions that men are born with (such as Klinefelter's disease or Kallman's syndrome) also lower testosterone levels.
- Hyperthyroidism, when levels of thyroid hormone are abnormally high.
- Parathyroid disease, when levels of parathyroid hormone are abnormally high.
- Conditions that affect the absorption of food such as Crohn's or coeliac disease.
- Conditions that cause long periods of immobility such as stroke.

Other conditions may be associated with osteoporosis such as diabetes and HIV (AIDS). Organ transplant recipients and people with some respiratory diseases may also be at more risk. People who have undergone gender re-assignment may also be at increased risk.



## Some medicines increase your risk:

- Taking corticosteroid tablets e.g. prednisolone, for longer than three months for other medical conditions.
- Anti-epileptic drugs e.g. phenytoin.
- Breast cancer drugs such as aromatase inhibitors e.g. anastrozole.
- Prostate cancer drugs that affect either the production of the male hormone testosterone e.g. goserelin, or the way it works in the body.

## Other medicines may increase risk but more research is needed:

- Drugs to reduce inflammation of the stomach and oesophagus called proton pump inhibitors (PPIs).
- Diabetic drugs in the glitazone group (including rosiglitazone and pioglitazone).
- Injectable progestogen contraceptives – medroxyprogesterone acetate, known as Depo Provera.
- Some drugs used for mental health problems including depression.