Eat a healthy, balanced diet: Aim to eat meals that incorporate a wide variety of foods from the four main food groups. These are fruit and vegetables; carbohydrates such as bread, potatoes, pasta and cereals; dairy and alternatives; beans, pulses, fish, eggs, meat and other proteins.

**Ensure you get enough calcium:** Calcium is vital for strong teeth and bones because it gives them strength and rigidity. As well as dairy products, calcium can be found in green leafy vegetables, dried fruit such as figs and tinned fish containing bone.

Get plenty of Vitamin D: You need vitamin D to help your body absorb calcium. Adequate vitamin D will also keep muscles strong and help prevent falls in older people. You can get vitamin D by the action of sunlight on your skin, from food and drink containing vitamin D naturally or added-in ('fortified') or from dietary supplements. You should try to get short periods (about 10 minutes) of sun exposure to your bare skin, once or twice a day, without sunscreen and taking care not to burn. Get outside between the end of March/April and the end of September when the sun's rays produce vitamin D.

To ensure you get enough, in addition to sensible sunlight exposure, you need 10 micrograms (sometimes described as 10 µg or 400 international units (IU)) of vitamin D every day from food (naturally of fortified) or supplements. You will need a supplement all the year round if you aren't exposed to much sunlight – for example, if you cover up your skin for cultural reasons; you are frail, housebound or confined indoors for long periods or you use sunblock for medical reasons. In the winter months we rely on foods and supplements to get adequate amounts of vitamin D so a supplement will often be useful.

#### Do plenty of regular weight-bearing exercise:

Another way your skeleton can grow stronger is if you do regular weight-bearing exercise. This is any kind of physical activity where you are supporting the weight of your own body, for example jogging, tennis and brisk walking. Research shows that older men who keep fit and active are less likely to have fractures caused by osteoporosis.

**Stop smoking:** Smoking has a toxic effect on bone by stopping the construction cells in the bones from doing their work. It's another good reason to try to give up.

For osteoporosis information and support contact our Helpline:



To order an information pack or other publications:

() 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?





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## Osteoporosis in Men



#### What is osteoporosis?

Osteoporosis is the fragile bone disease, which causes painful and debilitating fractures. It occurs when the struts which make up the mesh-like structure within bones become thin causing bones to become fragile and break easily following a minor bump or fall. These broken bones are often referred to as fragility fractures. The terms 'fractures' and 'broken bones' 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

## Isn't osteoporosis a woman's disease?

No, although the disease is more common in women, one in five men over the age of 50 will break a bone mainly due to osteoporosis.



## Why do men get osteoporosis?

In nearly half of all men with osteoporosis, the causes of the condition are unknown and more research is needed to discover why excessive bone loss occurs. Our risk of osteoporosis is largely hereditary, with genetic factors dictating up to 80 per cent of our likelihood of developing the disease.

Men with a close family history of osteoporosis generally have lower than expected bone mineral density (the strength of the bone tissue) and an increased risk of breaking bones.

Other major causes of osteoporosis in men are low levels of the male hormone testosterone (hypogonadism) and taking a glucocorticoid ('steroid') tablets for conditions such as asthma. Alcohol abuse also accounts for a significant number of cases. Other conditions such as secondary hyperparathyroidism (excessive levels of parathyroid hormone), hyperthyroidism (caused by an over-active thyroid gland) and medical conditions which affect the absorption of nutrients from food, such as coeliac disease or Crohn's disease, can also result in osteoporosis. If you have any of these conditions you should discuss your risk of osteoporosis and fragility fractures with your doctor.

### Bob's story:

Bob Rees was 43 when he was diagnosed with osteoporosis. Bob was on a family holiday in the Dominican Republic in June 2002, when he collapsed in agony.

In March 2003, nine months later and after extensive tests, Bob was diagnosed with compression fractures in the spine caused by osteoporosis. He remembers his relief at being told that he didn't have bone cancer, as had been suspected, but his relief was short-lived when he was told he had the bones of an 80-year-old.

#### How is the condition treated?

Men who are found to have a high risk of fracture or who have already broken a bone will normally be referred to specialist centres for assessment and discussion of potential treatments. This is because the diagnosis is more complex in men and some treatments are only licensed to be used for postmenopausal women or men on corticosteroid therapy.

Three of the bisphosphonates, alendronate 10mg (Fosamax), risedronate 35mg (Actonel once weekly) and zoledronic acid (Aclasta), have a specific licence for men as does a form of parathyroid hormone treatment called teriparatide (Forsteo). Strontium ranelate (Protelos) is licensed for men in England and Wales although it is not authorised for male use in Scotland, Denosumab (Prolia) is a treatment that is licensed for use in men with bone loss caused by treatments for prostate cancer. It may also be prescribed for osteoporosis in men with other causes. Although not licensed for men, the bisphosphonates alendronate 70mg (Fosamax once weekly) and ibandronate (Bonviva) are sometimes prescribed. In practice it is likely that the generic form of alendronate - alendronic acid - will be the first choice treatment for men

## What can I do to improve my bone health?

Our genes are the key to deciding the potential size and strength of our skeleton but there is plenty you can do to improve your bone health. Turn over to find out more...

Bob turned to the National Osteoporosis Society for support and was a Volunteer Ambassador for the charity. He finds that talking to other people with osteoporosis helps him deal with his own pain, and he



advises anyone who has recently been diagnosed with osteoporosis to try and keep active. He says, 'Don't sit back and give in. Small lifestyle changes such as walking can help to keep bones healthy.'