



**Royal
Osteoporosis
Society**

Better bone health for everybody

Raising awareness of Osteoporosis

Welcome and Contents

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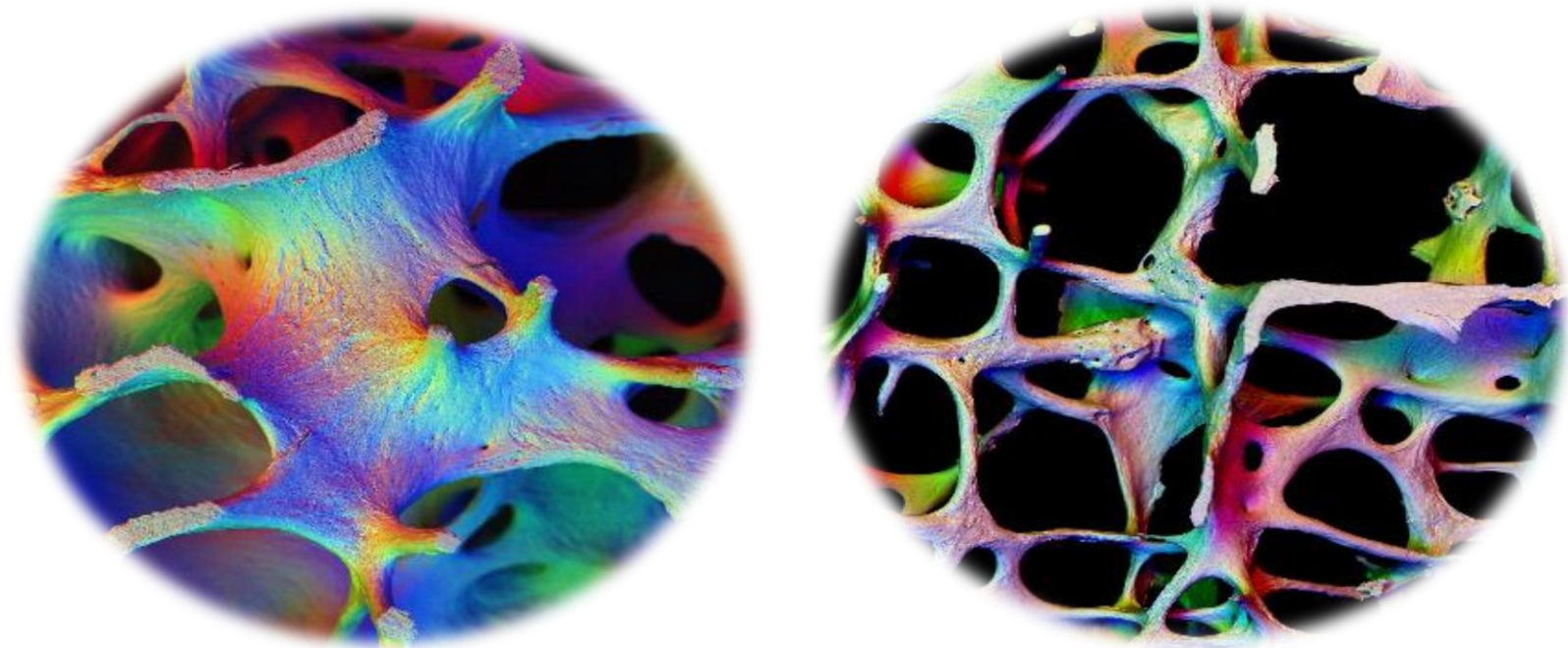
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The ROS is the UK's largest national charity dedicated to improving bone health and beating osteoporosis. The charity is there for anyone affected by or interested in the condition, regardless of whether they have a diagnosis or not.

What is osteoporosis?

Osteoporosis is a condition when bones are fragile and more likely to break easily.

This slide shows how the inner mesh of bone looks microscopically; with healthy bone on the left and osteoporotic bone on the right.

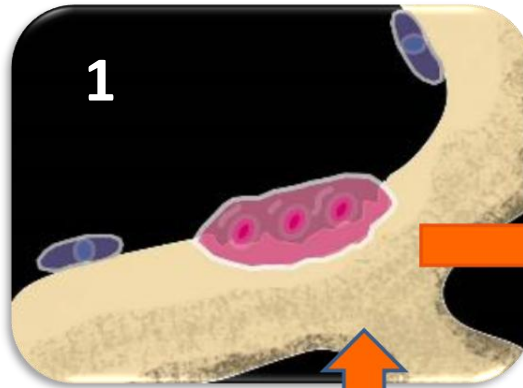


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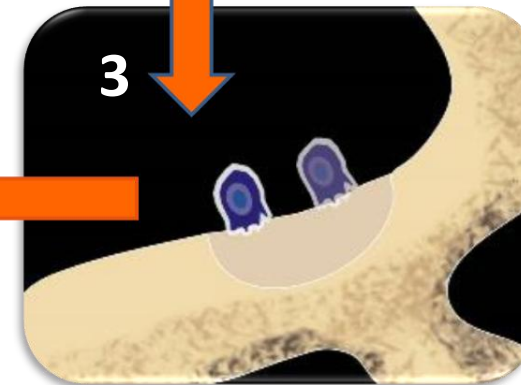
The living skeleton

Bone is a living tissue that is constantly changing or 'remodelling' throughout life. Bone is made up of different cells.

Stage 1 shows **osteoclasts** wearing away the surface of a bone strut creating a cavity



Stage 2 shows **osteoblasts** creating new bone



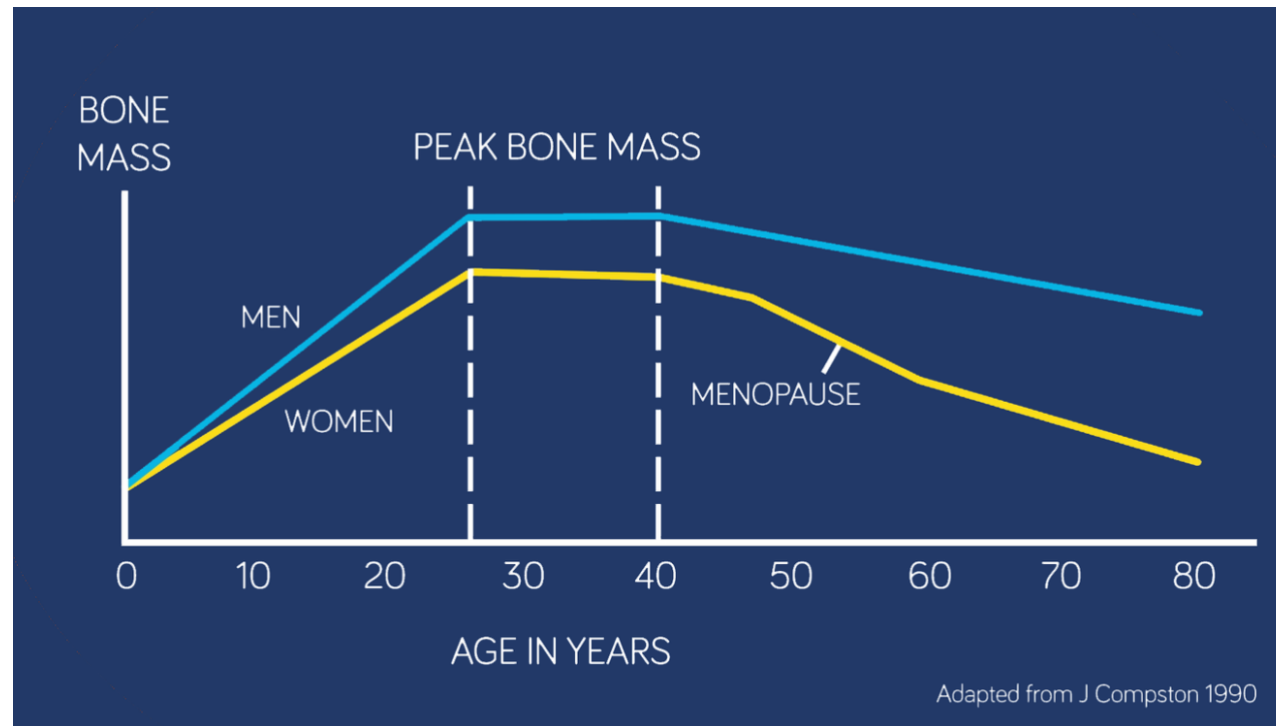
Stage 3 shows **new bone** filling up the cavity



Stage 4 shows **bone resting** before the process starts again

Changes in bone mass with age

This graph shows that losing bone is a normal part of aging. Lifestyle factors such as **nutrition** and **exercise**, as well as our **genetic make up**, will affect the amount of bone laid down in our early years and the pattern of bone loss in later life.



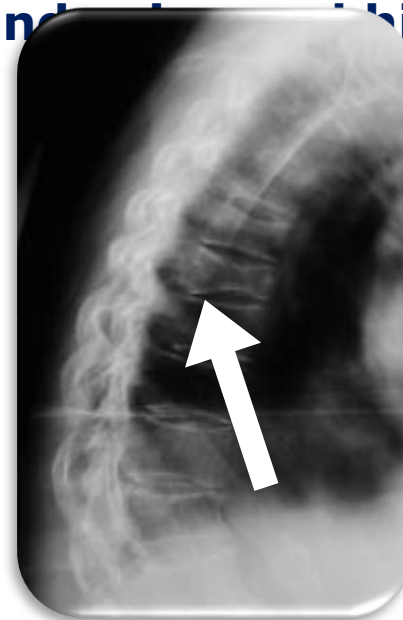
Some people lose bone much faster than normal. This can lead to osteoporosis and an increased risk of broken bones.

Common fracture sites

The most frequent fractures linked with osteoporosis are of the **wrist and hip**



Wrist fractures tend to occur at a younger age and can be an early signal that an individual may have fragile bones.

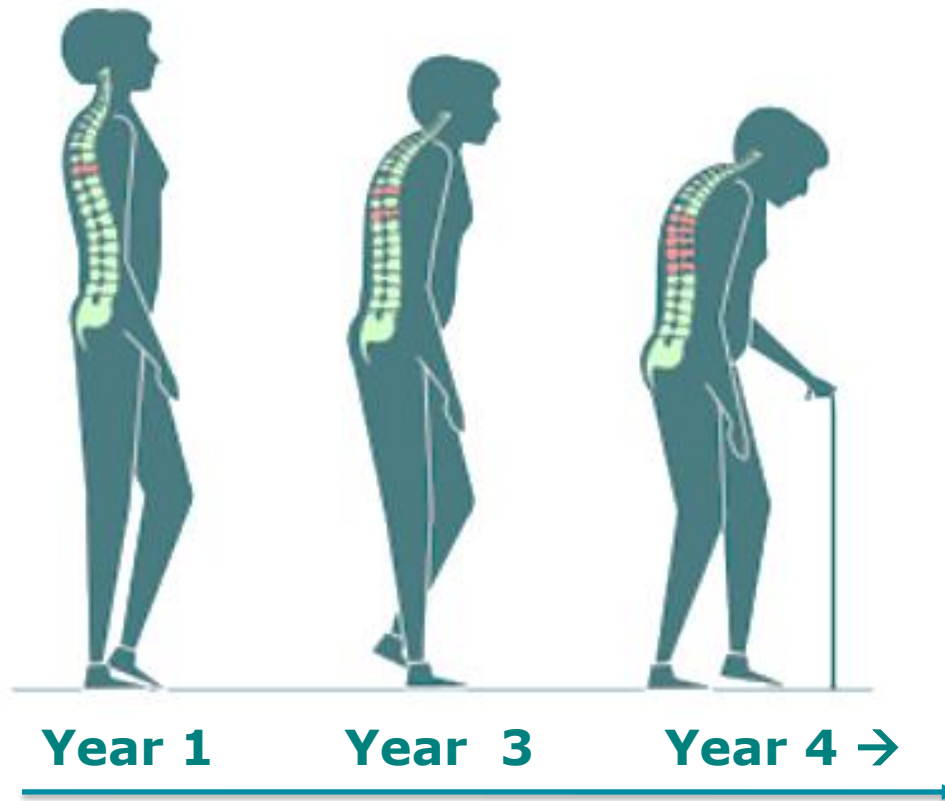


Vertebral compression fractures (spinal fractures) usually NOT a consequence of a fall and may occur following routine daily activities such as bending or lifting.



Hip fractures commonly affect older people and can severely reduce quality of life.

The impact of vertebral compression fractures (spinal fractures)



Progression over time

Over 4 years, the individual could experience **height loss** and **curvature of the spine**.

Changes to their rib cage and diaphragm **can cause problems with breathing and digestion**.

Changes in posture can impact **mobility, affect stability and increase risk of falls**.

Changes can't usually be reversed.

Osteoporosis – How common is it?

Over 3.5 million people are living with Osteoporosis in the UK.
Half of all women and one in five men over 50 will break a bone due to poor bone health

Osteoporosis causes over half a million broken bones every year in the UK
(that's almost one broken bone every minute!)



>3.5 m in UK



500,000 fractures pa
costing >£4.5 billion



Lifetime fracture risk at 50
1 in 2 women, 1 in 5 men



4,000 people in NHS
bed with hip fracture



Age, Gender and Race

The older you get, the greater your risk of osteoporosis.

Women have a higher lifetime risk of fracture because they lose bone more rapidly at the menopause and live longer than men.

You're at greatest risk of osteoporosis if you're **White or of Asian descent.**

Risk Factors for developing osteoporosis

PERSONAL RISK FACTORS	LIFESTYLE RISK FACTORS
Broken bones	Smoking
Family history	Diet
Medical Conditions	Alcohol
Medicines	Physical Inactivity
Low Sex Hormones	Low Body Weight

You can make positive changes to your lifestyle to reduce the risk of developing osteoporosis.

What can I do to keep my bones strong and prevent fractures?



Eat a healthy, balanced, calcium-rich diet. Get safe exposure to sunlight to maintain vitamin D. Do regular weight-bearing exercise and maintain appropriate body weight.



Give up smoking and do not consume excessive alcohol



Have you already broken a bone?

An easily broken bone is often the first sign that your bones have lost strength.

Strong bones should be able to withstand a bump, or the impact of a fall from standing height.

So if you've broken a bone easily, speak to your doctor. This is especially important if you have other **risk factors for osteoporosis**.

Remember: People can live well with osteoporosis and there are good treatment options available.

Knowing your risks is the first step!

Check your bone health risk today

[theros.org.uk
/risk-checker](https://theros.org.uk/risk-checker)



**It's never too
early or too late to
act on
your bone health.**

In just five minutes our new
osteoporosis risk checker will
provide
people with free, tailored advice
about their risk and practical tips
on how to take action on their
bone health.

Osteoporosis – how is it diagnosed?



The scan uses low dose radiation. The scan is painless and silent.

Osteoporosis is diagnosed with a scan to measure bone density levels inside the bone.

The gold standard is a DXA scan and is used as part of an overall fracture risk assessment called FRAX.

Other scans/test may occasionally be used to diagnose Osteoporosis such as Ultrasounds, X-ray; MRI; CT; and Bone Markers Tests.

Osteoporosis – Fracture Liaison Service



NHS Fracture Liaison Services **actively finds individuals over the age of 50** who have fractured from a low trauma fall.

Fracture Liaison Service (FLS) is the gold standard for fracture care. They can be based at a doctor's surgery or more commonly a hospital.

Patients will be assessed and receive support from healthcare professionals such as nurses, therapists and doctors with expertise in osteoporosis and fracture prevention.

Osteoporosis – how is it treated?

For those who have been diagnosed with Osteoporosis, there are a range of **drug treatments** available in the UK and prescribed usually to reduce the risk in those with a high risk of fracture.

Treatments:



Tablets



Solutions



Inject



Infusions

Osteoporosis drug treatments help strengthen your bones and reduce your risk of breaking a bone.

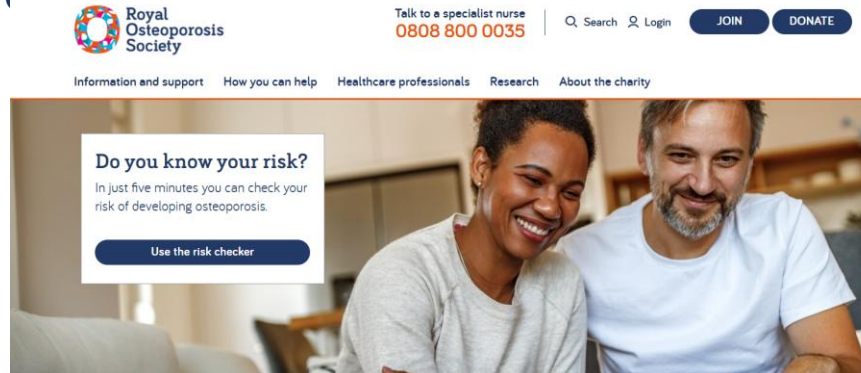
You may be offered medication if your risk of breaking a bone is significantly higher than normal.

After a diagnosis of osteoporosis or if you have risk factors, **you should do more exercise, rather than less.** Being physically active and exercising helps you in so many ways, and is very unlikely to cause a broken bone.

Where can I find out more?

For more information and support, please visit our website:
theros.org.uk

Videos and factsheets, online events, local support groups,
advice from our specialist nurses and more...



Nurses Helpline: Freephone 0808 800 0035

Opening hours: **Weekdays 9-12.30, 1.30-5pm**

Email address: **nurses@theros.org.uk**

Royal Osteoporosis Society, St James House, Bath, BA2 3BH



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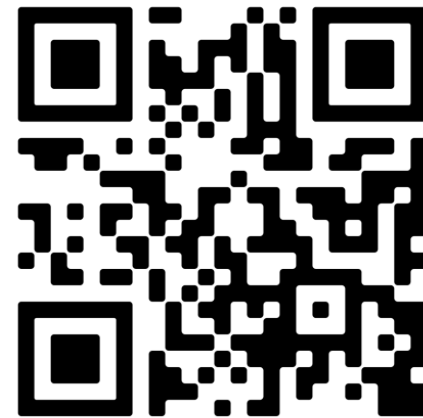
Better bone health for everybody

Questions?

A final reminder...

Check out your personal risk of osteoporosis today

[theros.org.uk
/risk-checker](https://theros.org.uk/risk-checker)



Check your bone
health risk today!



SCAN ME