

Solving problems, Finding Solutions.



1 in 2 women
and 1 in 5 men
over the age of 50
will have a fracture
due to low bone
strength.

Royal Osteoporosis Society

Osteoporosis affects over 3 million people in the UK.

What is osteoporosis?

Osteoporosis is when there is decreased bone strength leading to increased risk of fracture. The inside of the bone becomes thinner and weaker.

Osteoporosis affects men as well as women.

Most common areas for
osteoporosis fractures:

Spine
Hip
Wrist

This booklet aims to provide you with the information to identify if you are risk of osteoporosis. It will tell you how you can prevent your bones from weakening and the treatments that are available if you have osteoporosis.

This information is aimed at people in their 40s and 50s to give you the information to take action to strengthen your bones before your risks increase.

Solving Problems:

Are you likely

to get

Osteoporosis?

What puts someone at risk of osteoporosis?

There are many known risks for osteoporosis. Look through the list—if you have several of them you may be at increased risk of developing osteoporosis. There are changes you can make to reduce your risk and effective treatments for preventing fractures we're going to look at these in the next section.



Things you can't change:

- Aged 50 or more with a new fragility* fracture or vertebral fracture.
- Aged 65 or more with more than 2 falls in the past year
- Parental history of fracture
- Inherited low bone density
- Immobile due to disability
- Premature menopause <45 years
- Previous fragility fracture

Medical conditions - rheumatoid arthritis, inflammatory bowel disease, cystic fibrosis, hyperthyroid, COPD

Medications - corticosteroids, aromatase inhibitors, androgen therapy, anti-epileptic medication

Things you might be able to change:

- Low body mass index <19
- Vitamin D insufficiency
- Alcohol >3 units per day
- Smoking
- Falls

* a fragility fracture is a broken bone caused by low strength bones

Finding Solutions:

Five actions to reduce your risk of osteoporosis.

1 Put on weight.

It's not often you hear a health professional recommend weight gain but if your body mass index is **less than 19** you are at increased risk of osteoporosis.

What is my Body Mass Index?

You can calculate your body mass index like this:

Your weight in kg divided by your height multiplied by itself.

E.g. Weight = 56kg Height = 1.6 metres

$$56/(1.6 \times 1.6) = 21.9 \text{ kg/m}^2 \text{ BMI}$$

The NHS has a calculator to help you can find it here:

<https://www.nhs.uk/live-well/healthy-weight/bmi-calculator/>

An ideal BMI is between 18.5 and 24.9 but for reducing risk of osteoporosis it needs to be over 19.

How can I gain weight?

Gaining weight through maintaining a **healthy calorie intake** and **strengthening muscles** may reduce your risk.

The average man needs 2500 kcal per day and the average woman 2000 kcal per day.

Gaining weight by eating high fat, high sugar foods is not recommended. Making small changes like using full-fat milk, adding cheese to meals, and making sure you eat regularly can all help improve your BMI.



2 Get enough Vitamin D and calcium

Vitamin D

You get vitamin D from being in the **sunlight**. It is a very important vitamin for bone health. It helps to absorb calcium and promote bone growth.

Recommended dose of sunshine

From May to September you should try to expose your arms and face to the sun for **two 10 minute sessions** per day. Take care not to put yourself at risk of sunburn.

What about the winter?

In the UK in the winter it is not possible to get enough vitamin D from the sunlight. Public Health England recommends taking a **vitamin D supplement**, particularly from **September to May**.

People who are particularly at risk are the elderly, people with low sunshine exposure, people with darker skin, and children under 3 years.



Calcium

Calcium is important for bone and teeth health. It also is needed for blood clotting, moving muscles and keeping your heart beating.

How much calcium do you need?

You should try to have at least **700mg of calcium per day**.

What foods contain calcium?

The table below shows examples of the calcium in some foods. **Dairy products and sardines** are the highest. You can find out more about foods on the Royal Osteoporosis Society website. www.theros.org.uk

Food	Quantity	Amount Calcium
Milk	200ml	200mg
Cheese	Edam (40g), Cheese omelette, Quiche	300mg
Yoghurt	125g	200mg
Sardines	50g	200mg
Sesame seeds	1 tbsp	100mg
Soya milk	200ml	200mg
Almonds	10 nuts	50mg
Dried Apricots	8	50mg
Cabbage, broccoli, watercress (40g), green beans	~ 90g	50mg



3 Exercise

Weight bearing and resistance exercises are the most effective.

Weight bearing exercise

Weight bearing exercise means exercise when you are standing on your feet:

You should aim to do around **150 minutes** of exercise per week as an adult.



- Dance
- Aerobics
- Walking
- Running
- Skipping
- Climbing stairs
- Tennis

Resistance Exercise

Resistance exercise is exercise lifting weights—even if that is your own body weight—for strengthening. The worldwide recommendation is that you do **2 sessions of strengthening** exercises per week.

4 Drink less alcohol

Women should not drink more than 2-3 units per day

Men should not drink more than 3-4 units.

Drinking higher amounts of alcohol affects the body's ability to make bone and can increase bone breakdown.



5 Stop smoking

Smoking has been identified as a risk factor for osteoporosis for years.

There are a lot of resources to help you with stopping smoking and there will usually be help available through your GP surgery.

Public Health England states that:

- Using **will power alone** is the **least effective** method
- Using nicotine replacement therapies—patches, gum or e-cigarettes makes it 1.5 times more likely you will succeed
- Using a stop smoking medication prescribed by a GP or pharmacist Doubles your chances of quitting
- Using **free Local stop smoking services** available through the NHS makes it **4 times as likely you will successfully quit**.



Get advice, testing and treatment

Advice

If you have realised that you are at high risk for osteoporosis seek advice from a health professional. This may be due to a medical condition or medication you are taking or simply that you have a lot of the risk factors.

There are research tested questionnaires that health professionals can use to predict your percentage risk of fracture. If you are at high risk then you may need further tests or to start treatment.

Testing

Bone density can be measured using a DEXA scan. This is a safe and painless test that measures the strength of your bones at different sites in your body.

Medication

There are several medications prescribed for those at risk of osteoporosis.

Women may be recommended to go on HRT as they pass through the menopause. The most widely used medications are called bisphosphonates. They are particularly effective for people who have been on long term steroids.



What you may have learnt.

There are some actions you can take to reduce your risk of osteoporosis. If you have relatives who have had fractures due to osteoporosis think about what you might be able to do differently from them. We've looked at 5 actions you can take to reduce your risk of osteoporosis:

1. Put on weight (if your BMI is low)
2. Get enough vitamin D and calcium
3. Exercise
4. Drink less alcohol
5. Stop smoking

Decide what change you are going to make and commit to making that change a habit for life—take one step at a time.

If you are worried that you are at high risk and have many of the risk factors listed at the beginning of this booklet see a health professional for further advice.

If you have any questions or would like some advice please do get in touch with Deborah at Pain Puzzle.



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