

# Brakes guide to Bone health

## Bone health

The human skeleton is made up of 206 bones that protect the internal organs, work with muscles to allow movement, store minerals such as calcium, and contain bone marrow which is where red blood cells are made. Bone is living tissue and the adult skeleton is completely replaced every 7-10 years. Strong bones together with strong muscles, can help people to live a healthy, active and independent life.

## Osteoporosis

Losing bone is a normal part of the ageing process but some people lose bone faster than normal. This can lead to a condition called osteoporosis where bones become fragile, brittle and more likely to break. Osteoporosis develops slowly over a number of years and can cause bone fractures even after a minor trip, fall or even a sneeze! Women are more at risk of developing osteoporosis than men, because the hormone changes that happen during the menopause directly affect bone density.

## Calcium

Calcium is the most abundant mineral in the body - 98% is in the bones, 1% in your teeth and the other 1% circulates around in your blood stream. Adults need 700mg calcium each day but after the menopause, women need even more, about 1200mg calcium a day. Calcium is an important nutrient for healthy bones and teeth.

It's also needed for normal blood clotting and plays a role in nerve and muscle function too. Calcium is found in green leafy vegetables, some nuts and canned fish with bones but the calcium found in dairy foods is the easiest for our bodies to absorb.



### Sources of calcium:

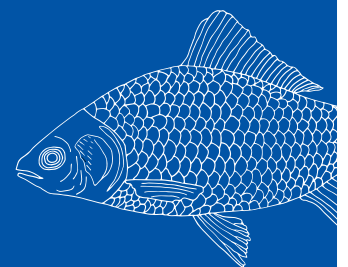
- Dairy foods; milk, cheese, yogurt
- Green leafy vegetables
- Canned sardines/pilchards
- Almonds
- Tofu
- White flour (fortified)

## Vitamin D – the sunshine vitamin

Vitamin D is an essential nutrient for bone health because it helps the body to absorb calcium from foods. We get most of our vitamin D from sunlight, it's made under the skin when you're outside during daylight. In the winter, the sun isn't strong enough in the UK to make enough vitamin D.

It's recommended that everyone should take a vitamin D supplement, especially during the autumn and winter months. Vitamin D deficiency is known as osteomalacia in adults and rickets in children. It can be found in small amounts in the following foods:

- Oily fish, such as salmon and sardines
- Eggs (the yolk)
- Fortified fat spreads
- Fortified breakfast cereals



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## Meal/snack ideas to incorporate calcium rich foods:

- Cereal with milk or yogurts
- Canned fish sandwiches/on toast
- Variety of green leafy veg with meals
- Yogurt, milk and custard-based desserts
- Milky drinks
- Cheese & crackers, yogurt or nuts as a snack
- If using dairy alternatives – make sure they are fortified with calcium

## Top tips for bone health

Eat a healthy balanced diet – including foods rich in calcium and vitamin D

Take a daily supplement containing 10 micrograms of vitamin D

Take regular exercise to keep bones as strong as possible

Lifestyle changes – if relevant, give up smoking and reduce alcohol consumption



## Trips and falls

The majority of hip fractures happen as a result of a trip or fall.

The following factors can significantly increase the risk of falls and subsequent fractures:

- Poor eyesight
- Hazards on the floor – wires, rugs, loose carpet, equipment
- Loss of balance/poor immobility
- Poor lighting
- No handrails on walkways and staircases
- Inappropriate footwear
- Medication – some can cause drowsiness or unsteadiness

