

# Anorexia nervosa and osteoporosis

## Consumer Factsheet



Osteoporosis is a condition in which the bones become fragile, leading to a higher risk of breaks or fractures. A minor bump or fall can be enough to cause a break in someone with osteoporosis. People with anorexia nervosa are at increased risk of developing osteoporosis. This factsheet explains how anorexia nervosa can affect your bones, how to find out if you are at risk of osteoporosis, and what you can do to help protect your bone health.

### The importance of building a strong skeleton

The health and strength of our bones in adulthood depends largely on how we look after them in childhood and adolescence. The growing skeleton is very demanding – bones need good nutrition and a healthy lifestyle to build strength while they grow. When we reach middle age, the bones start to weaken. Women who have just been through menopause lose bone particularly rapidly. Looking after our bones and building up a good bone 'deposit' during our early years goes a long way towards reducing the impact of natural bone 'withdrawals' as we age. Anorexia nervosa can have a major impact on the ability of the skeleton to achieve its peak bone mass and optimal strength, with potential adverse effects on bone health and an increase in fracture risk in later life.

### The link between anorexia and osteoporosis

People of any age who have anorexia nervosa (or have suffered from it in the past) are more likely than the general population to have poor bone health. There are several reasons for this:

#### Hormones

The hormone estrogen is very important for bone growth, particularly in girls going through puberty. Low body weight causes the body to stop or drastically reduce estrogen production (menstrual periods often stop when this happens), adversely affecting bone growth and strength. Levels of other growth-related hormones may fall because of weight loss during anorexia nervosa, with similar effects on bone health. Low hormone levels (including low testosterone) also affect the bone health of men and boys with anorexia nervosa.

#### Low body weight

Body weight has a direct effect on bone strength, and we know that people with very low body weight are at increased risk of osteoporosis.

#### Poor nutrition

Bones need a well-balanced diet to grow, gain strength and stay healthy. Adequate calcium is crucial. People with anorexia are unlikely to be getting enough calcium, vitamin D, protein and other important nutrients from the diet that are needed to build and maintain bone strength.



### Could I be at risk of osteoporosis?

If you have low body weight due to anorexia nervosa, particularly if your periods have stopped for several months, you may be at increased risk of osteoporosis. If you have suffered from anorexia nervosa in the past but have since recovered, you may still be at risk of poor bone health. The impact on your bones will depend on the severity of your anorexia and how long you have suffered from it. Other medical problems and any family history of osteoporosis will also have an impact on your overall risk of developing osteoporosis, particularly as you grow older.



It is important to discuss with your doctor the effects that anorexia nervosa and your general health may have had on your bones so that action can be taken to protect your bone health into the future.

## Testing for osteoporosis

Your doctor may refer you for a bone density test. This simple scan measures the density of the bones in the hip and spine. The results will indicate if your bone density is normal, mildly reduced (*osteopenia*), or if you have osteoporosis. Most people don't know they have osteoporosis until they have a fracture. That's why it's vital to discuss your bone health with your doctor so you can take action to help prevent broken bones before they occur.



## Do I need osteoporosis medication?

The most effective treatment for poor bone health in anorexia nervosa is to tackle the eating disorder itself, so that body weight increases and hormone levels are restored. This usually requires the help of a team of professionals – doctors, nurses, mental health professionals and dietitians. The type of treatment you receive will be specific to your individual needs. You may need vitamin and mineral supplements, particularly calcium and vitamin D. Hormone treatments to improve bone health in anorexia nervosa are still under research, and are not yet recommended for young people with this disorder. Special osteoporosis medications may occasionally be given, but little research has been carried out into the effectiveness of these medications in younger people with anorexia. Your own individual circumstances will determine whether an osteoporosis medication is needed.

## Exercise and bones

Weight-bearing and resistance exercise is crucial for the maintenance of bone health, but it is important to get the right amount. Excessive exercise, particularly if body weight is already low, may actually harm your bone strength in a similar

way to anorexia nervosa. Your medical professional team should advise you on suitable types and levels of exercise, depending on your individual needs and circumstances.

## What else can I do for my bone health?

Healthy lifestyle habits are important for keeping bones strong. Go outdoors for short periods on most days – exposing your skin to the sun is the best way of getting the vitamin D that your bones need. Don't smoke and keep your alcohol intake low. More information about lifestyle choices for healthy bones can be found on the Osteoporosis Australia website.

