

# Osteoporosis

## What is osteoporosis?

Osteoporosis is a condition in which the body's bones become less dense and are more likely to break. It is diagnosed by assessing bone mineral density (BMD), which is a measure of the strength of bones. People with osteoporosis have low BMD.

## Am I at risk?

Many people with coeliac disease have reduced BMD when they are first diagnosed, and some will go on to develop osteoporosis. Men and women are both at risk.

Peak BMD is reached when adults are in their early to mid-thirties, and is dependent on a number of variables, among them calcium absorption. For people who are diagnosed with coeliac disease as adults, it is likely that the ability to absorb calcium has been impaired for some time, due to the gut damage caused by eating gluten. Decreased calcium absorption increases the risk of developing osteoporosis.

For the majority of people who are diagnosed with coeliac disease as adults, bone density will usually improve once they commence a gluten free diet. This can be more difficult to achieve for women diagnosed after menopause. Children and teenagers with coeliac disease who follow a gluten free diet will generally achieve a normal bone density.

There is an increased risk of osteoporosis in women after menopause, and this risk is increased in women who have coeliac disease, especially if it was diagnosed later in life. Increasing age also increases the risk of osteoporosis, and this is made worse by cigarette smoking and having a low bodyweight.

## Should I be tested?

Osteoporosis is diagnosed by a bone density (DEXA) scan which measures BMD. If it has not already been discussed with you by your specialist, check with your GP about whether it might be necessary for you to have a DEXA scan.

## How is osteoporosis treated?

If osteoporosis is identified then treatment with medication will be commenced. Bisphosphonates are the group of drugs most commonly used to treat osteoporosis, as they slow down the rate of bone loss. However, depending on individual circumstances, other drug treatments may be needed.

Your GP or gastroenterologist will advise you if you need medication to lower the risk of breaking your bones in the future.

## How do I minimise the risk of developing osteoporosis?

If your bone density is low, but osteoporosis has not yet developed, then it is important to take steps to prevent this happening.

Although there are many factors which play a role in the development of osteoporosis, having a healthy lifestyle can help delay the onset. For people with coeliac disease the most important factor is following a gluten free diet. This will allow the gut to heal and improve the absorption of calcium.

Whatever a person's BMD, following a healthy balanced gluten free diet that is rich in calcium is important for maintaining healthy bones, along with some sunlight (follow the Cancer Society's guidelines for this) for Vitamin D. This is especially important when bone density is already starting to decline.

People with coeliac disease seem to have an increased need for calcium compared to the general population. It is recommended that adults with coeliac disease should have between 1000 milligrams (mg) and 1300mg of calcium each day.

The following list includes some good sources of calcium that are gluten-free:

- 250ml cup of calcium-enriched trim milk (yellow lid) = 500mg
- 250ml cup of Trim milk (green lid) = 330 – 375mg
- 250ml cup of Super Trim or extra trim milk (light green lid) = 350 – 375mg
- 250ml cup of Lite milk (light blue lid) = 312 – 350mg
- 250ml cup of calcium enriched soy milk = 300 – 400mg
- 250 ml cup of calci plus soy milk = 500mg
- 250ml cup of calcium enriched rice milk = 125 - 300mg
- 250ml cup of lactose free milk = 290 - 332mg
- 40grams Edam or cheddar cheese = 280 – 310mg
- 1 pot yoghurt 125grams = 165mg
- 1 pot soy yoghurt 125grams = 150mg
- Tofu 200grams = 270mg \_ ½ cup kidney beans = 30mg
- Salmon half a tin including bones = 250mg
- Sardines small can = 450mg \_ 1 cup broccoli = 60mg
- 1 cup cooked spinach = 130mg
- 1 orange = 35mg
- 10 almonds = 30mg

Source: NZ Nutrition Foundation and manufacturers labels

To absorb enough calcium the body needs vitamin D. Most people make enough vitamin D from exposing their skin to sunlight, while good food sources of vitamin D are margarine, eggs and oily fish but it is not usually possible to get enough Vitamin D from food alone.

Some older people, those who are housebound, and those who cover their skin completely when outside, may need to take vitamin D supplements. Similarly, people with low calcium levels who can't get all the calcium they need from their diet may need to take a calcium supplement. Some calcium supplements are combined with vitamin D.

**If you think you may need supplements, speak to your doctor or dietitian and they will provide further advice. If necessary you may be prescribed supplements.**

**Other ways to help look after your bones include:**

- Regular weight-bearing exercise, such as jogging, walking, gardening, dancing
- Stopping smoking
- Avoiding excessive alcohol intake
- Avoid excessive caffeine intake
- Maintain a healthy body weight - being underweight increases risk

For further information on osteoporosis contact Osteoporosis New Zealand at [www.bones.org.nz](http://www.bones.org.nz) or call their helpline on (04) 499 4862.

*This information is for guidance only and should not replace advice given by your medical professional*