

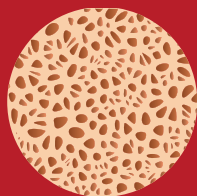
PATIENT INFORMATION

Osteoporosis and coeliac disease

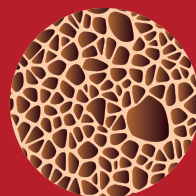


What is osteoporosis?

Osteoporosis is a condition in which bones become thinner and more fragile, making them more likely to break (fracture).



Normal bone



Osteoporotic bone



Broken bone

What is coeliac disease?

Coeliac disease is a genetically mediated autoimmune disease characterized by intolerance to gluten found in wheat, rye and barley. People affected suffer damage to the intestinal surface, which results in poor absorption of minerals and vitamins, and symptoms such as diarrhea and weight loss. The disorder must be controlled by strictly following a gluten-free diet, which allows the intestinal surface to heal and for nutrients to be properly absorbed again.



What is the impact of coeliac disease on osteoporosis?

The major causes of osteoporosis amongst people with coeliac disease include malabsorption of calcium, vitamin D, protein and other nutrients, and the accompanying weight deficit. The incidence of fractures reported in a large study of coeliac sufferers is higher compared to non-sufferers, with increases of 90% and almost 80% for hip and wrist fractures respectively.

By consistently adhering to a gluten-free diet, long-term bone health is likely to be unaffected.

Risk factors associated with coeliac disease

The following coeliac-related risk factors may also increase the risk of osteoporosis-related fractures due to reduced bone strength:

- Post-menopausal women with less estrogen
- Individuals diagnosed with coeliac disease in later adult life
- Failure to adhere to a gluten-free diet
- Lactose intolerance in combination with coeliac disease
- Being underweight
- Smoking regularly
- An overactive thyroid gland related to coeliac disease, may be linked to risk of osteoporosis

Am I at risk?

There are no specific screening recommendations for people with coeliac, but people with coeliac should talk to their doctors about whether they might be candidates for a bone density test. FRAX[®] calculations may also be used to predict 10-year risk of fracture based on individual risk factors.

Clinical guidelines relating to the prevention and treatment of osteoporosis in coeliac disease are available in Canada, Germany, UK and the United States.



“Coeliac disease can lead to osteoporosis, depression, infertility, repeated miscarriages and even some kind of cancers.”

(Tunde Koltai Association of European Coeliac Societies Board Chair)



Top Tips for good bone health in coeliac patients

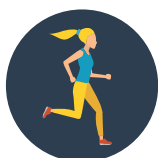
Early diagnosis of coeliac disease is essential as part of a healthy lifestyle. The following strategies can help people with coeliac disease to maintain healthy bones:

Following a strict gluten-free diet rich in calcium and vitamin D

Calcium is contained in various foods, and especially in dairy products. Vitamin D is produced in the skin upon exposure to sunlight. Although many people are able to obtain enough vitamin D naturally via sunlight, older people are often deficient in this vitamin due, in part, to limited time spent outdoors. They may require vitamin D supplements to ensure an adequate daily intake.

According to guidance from the British Society of Gastroenterology (2014), adults with coeliac disease are recommended a daily intake of at least 1,000mg of calcium.

Other general lifestyle factors are also important for people with coeliac disease in order to maintain healthy bones:



- **Regular bone strengthening exercise**

Regular weight-bearing and muscle-strengthening exercise can also help prevent bone loss and, by enhancing balance and flexibility, reduce the likelihood of falling and breaking a bone.

- **Healthy lifestyle**

Avoiding smoking and excessive alcohol intake, while maintaining a healthy body weight, is important for bone health.



- **Minimizing the risk of falling**

Two main steps to avoiding falls is wearing slip-proof shoes and fall-proofing the home. The latter may include installing hand rails on stairs and in bathrooms as well as ensuring that walkways are free of hazards (such as loose rugs).



I do not have bone pain. Does it mean that I don't have osteoporosis?

Osteoporosis is a painless disease unless a fracture occurs. So if you do not have pain, it does not necessarily mean that you do not have osteoporosis. Individuals could definitely be osteoporotic even if they have not had a fracture at all.



Will taking calcium and vitamin D protect my bones?

Calcium and vitamin D are important for bone health. An adequate intake of calcium can be achieved through dietary intake or, if this is not possible, by taking supplements. Most of our vitamin D is obtained by exposure of the skin to sunlight and supplements are sometimes necessary, particularly in people who do not go out of doors much or do not expose their skin to sunlight. Vitamin D is also available in some foods (www.iofbonehealth.org). IOF recommends vitamin D supplementation in adults aged 60 and over for falls and fracture protection.



Although it is important to ensure that you have enough calcium and vitamin D, your doctor may consider that you also need additional treatment to prevent or treat osteoporosis.