

Pilates Osteoporosis Notes

What is osteoporosis?

Osteoporosis literally means 'porous bones'. It occurs when the struts which make up the mesh-like structure within bones become thin. This causes them to become fragile so that they are more likely to break, usually after a minor bump or fall.

Who does osteoporosis affect?

It affects around three million people in the UK. 1 in 2 women and 1 in 5 men over the age of 50 will break a bone as a result of osteoporosis. Most susceptible are those with:

- a family history of osteoporosis
- a low body mass index (BMI is a measure of weight in relation to height)
- certain medical conditions such as malabsorption problems
- long-term use of certain medications
- heavy drinking and smoking

How do I know if I have osteoporosis?

Osteoporosis is most often diagnosed after the weakening of the bones has led to a fragility fracture, usually in the hip, wrist or spine. A bone density (DXA) scan can also be used. Scan results include a T-score which is a measure of how your bone density compares with the normal average for young, healthy adults. If it is:

- between 0 and -1 this is considered to be **normal**
- between -1 and -2.5 this is termed **osteopenia**
- below -2.5 this is classed as **osteoporosis**

You can work out if you're at risk of developing osteoporosis and breaking a bone in the next 10 years using an online Fracture Risk Assessment Tool (FRAX) at www.shef.ac.uk/FRAX/tool.aspx.

What should I do if I have been diagnosed with osteopenia or osteoporosis?

If you have been diagnosed with or are at risk of developing osteoporosis, you can make these **lifestyle changes** to help keep your bones healthy:

- take regular exercise
- eat a well-balanced diet with foods rich in calcium and vitamin D
- take a daily 10mcg vitamin D supplement – in the summer months you can also boost your vitamin D from sunlight, by spending time outside
- avoid smoking
- keep alcohol consumption within the recommended limits

Exercise

Bone density loss can be slowed and potentially halted by doing weight-bearing and resistance exercises. There is little evidence that bone density already lost can be reversed.

Weight-bearing exercises are those where your body supports your weight. This can include brisk walking, keep-fit classes or a game of tennis. Swimming and cycling are not weight-bearing exercises.

Resistance exercises are those that use muscle strength, where the action of the tendons pulling on the bones boosts bone strength. Examples include press-ups, weight lifting or using weight equipment at a gym.

Falls Prevention

Falls are not inevitable as you get older. Factors such as poor eyesight, certain medications, and poor muscle strength and balance, can be identified and treated.

How can Pilates help?

Pilates is beneficial to those with osteopenia or osteoporosis because it includes both weight-bearing and resistance exercises. It can also improve your balance and coordination, which helps to prevent falls.

In private sessions in the studio, you benefit from the use of the large equipment, which has springs to provide resistance and the exercises are tailored to your needs.

In mat classes, you must avoid some exercises to reduce the risk of fracture from doing repetitive movements using vulnerable areas of your body. Exercises to avoid include those which involve flexion, lateral flexion or rotation of your spine (forward and side bends or twists). Your teacher should offer you alternatives. Spine extension (back bend) exercises are generally beneficial.

If you have been diagnosed with osteoporosis or osteopenia and have had a fracture, please get medical permission before starting Pilates.

Where can I get more information?

For osteoporosis information and support contact the National Osteoporosis Society helpline 0808 800 0035 or visit their website nos.org.uk.

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