



### National Experts in Osteoporosis

#### What can happen to a person if they have undiagnosed or untreated Osteoporosis?

Osteoporosis is preventable and treatable in most people, please make your bone health your number 1 priority.

Untreated Osteoporosis can lead to a person breaking multiple bones, which can lead to disfigurement, pain, incontinence, and loss of independence. It is estimated that only 19% of people with bone loss are diagnosed, which is why it is so important that you check to see if you have risk factors for bone loss.

#### How is Osteoporosis Diagnosed?

A DXA scan of your spine and hips is the only test we recommend for screening and diagnosing Osteoporosis.

#### DXA Scanning

- DXA can also be called DEXA; Dual-energy X-ray absorptiometry
- A DXA is similar to having an X-ray, it is completely painless and is not claustrophobic. You will be asked to lie down on your back for approximately 15 minutes, as a bar from the machine will move back and forth above you.
- A DXA scan measures your bone mineral density, which shows if you have lost bone in that area.

#### How much does a DXA scan cost?

The average price of a DXA scan is €120

#### What does a DXA scan take images of?

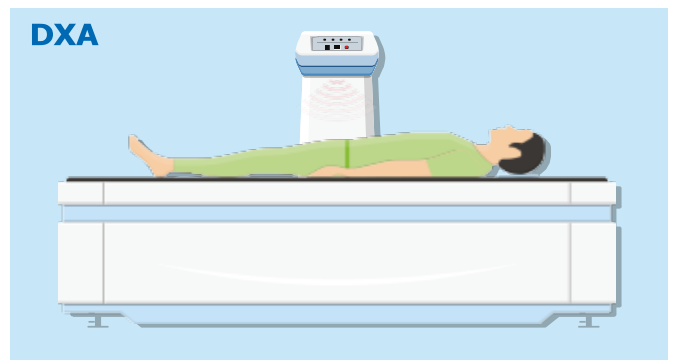
- A DXA scan takes an image of the inside of your bones.
- It scans the four bones in your lower back (L1, L2, L3 and L4), which are called lumbar vertebrae and are just below your belt line.
- The bone in your hip area will be scanned. They cannot scan a hip that has had a hip replacement.

#### DXA Scanning

Your DXA scan results will be sent back to the Doctor who referred you for the DXA scan.

The Irish Osteoporosis Society recommend that you have repeat DXA scans at a minimum every two years, preferably on the same DXA scan machine

Osteoporosis is a disease, which is why it is so important that your bone health is monitored by repeat DXA scanning. When you are rescanned on the same machine, your new results will be compared to your last DXA scan results. This will show if a decline has happened or if your bone health has improved. If a decline has happened, it is very important that the cause/s of your decline are investigated and addressed, NOT assumed.



#### Basic explanation of DXA scan results

- Mild Osteopenia = T score of -1 to -1.49
  - Moderate Osteopenia = T score of -1.5 to -1.99
  - Marked Osteopenia = T score of -2 to -2.49
  - Osteoporosis = T score of -2.5 to -2.99
- OR
- A Broken Bone from a trip and fall or less, unless proven otherwise
  - Severe Osteoporosis = T score of -3 or higher

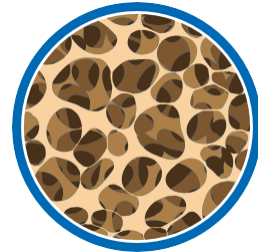
**NOTE:** If you have Osteoarthritis in your back, it can give a false higher reading in your back, implying your bones are healthier than they actually are.



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Normal bone



with Osteoporosis

#### What is Osteoporosis?

Osteoporosis is a disease that affects the inside of your bones, making them fragile. The images above show how Osteoporosis causes large holes to develop in the inside of your bones, which is why they break easily. Broken bones are also known as fractures. Example: You have been told that you have fractured vertebrae/ collapsed vertebrae/crushed vertebrae, which all mean you have broken bones in your back.

#### What is Osteopenia?

Osteopenia is the early stages of Osteoporosis. Research shows that most broken bones (fractures) occur in the moderate to marked Osteopenia range, which is a DXA scan T score result of -1.5 to -2.49. FYI: A person can be diagnosed with Osteopenia in their hips and Osteoporosis in their back or the reverse.

#### Are Osteoporosis and Osteopenia treatable?

Yes, it is very rare when a person cannot improve their bones. We know of 90-year-olds who have improved their bone health.

#### Who is at risk of developing Osteoporosis?

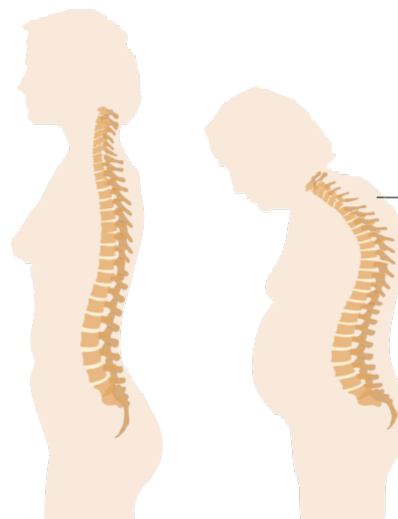
Anyone can develop Osteoporosis, as it affects women and men of all age groups and can even affect children. You will not feel the insides of your bones getting thinner, which is why everyone should check to see if they have risk factors for bone loss. Women over 65 are the highest risk group affected as they will have gone through the menopause, which is when a significant amount of bone can be lost. 90% of fractured hips (broken hips) are due to Osteoporosis and 7 out of 10 hip fractures happen to women.

#### What are the risk factors for losing bone?

There are approximately 200 causes of bone loss. Some causes are secondary effects from other diseases, treatments for other diseases and others are lifestyle choices. The following are some of the many risk factors, the Menopause, Family history especially of a broken hip, Radiation, chemotherapy and some treatments for breast and prostate cancer. Rheumatoid arthritis, Coeliac disease/Gluten sensitivity and Low levels of sex hormones in females and males. Anorexia/Bulimia, over exercising, Lack of weight bearing exercise, many medications such as protein pump inhibitors, others that contain cortisone such as steroid asthmatic inhalers, some anti-depressants and some water pills, Low calcium and/or Vitamin d levels, Physiological or psychological stress, smoking and excess alcohol.

#### The signs and symptoms of possible undiagnosed Osteoporosis

- A **broken bone** (fracture) caused by a trip and fall from a standing position or less, even if on cement or ice
- Upper, middle, or low back pain, intermittent or constant back pain
- Loss of height, you are getting shorter
- Your head is protruding forward from your body
- Your shoulders have become rounded
- A hump is developing on your back
- Your body shape is changing; a pot belly is developing



When bones collapse, posture is affected