



### 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 scan is like having an X-ray. It is completely painless, and it is not claustrophobic. You lie on your back for approximately 15 minutes while a bar moves back and forth above you.
- A DXA scan measures a person's bone mineral density, which tells the condition of the person's bone health.

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

- A DXA scan measures the bone density in the bones in your spine.
- DXA scans measure the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> Lumbar vertebrae, which are the bones in your lower back, below your belt line.
- The DXA machine scans one or both hips. The IOS (Irish Osteoporosis Society) recommends both hips, unless you have had a hip replacement.

#### What is a DXA with an LVA?

A DXA with an LVA (Lateral Vertebral Assessment) is a Lateral view (side view) DXA scan of your low, mid, and upper back. When having a DXA with an LVA, you will be asked to turn and lie on your side.



#### The IOS recommend a DXA scan with an LVA should be done if you have any of the following:

- You have been told you have broken bone/s in your back
- You have back pain (intermittent or constant)
- You have lost height (got shorter)
- Your head is protruding forward from your body
- Your shoulders have become rounded and/or a hump has started to develop on your back
- You have a scoliosis, or one has developed
- You have one or two hip replacements
- You are wheelchair bound or bed bound
- Your mobility (walking) is impaired.
- You have a present or past history of an eating disorder
- You have Osteoarthritis, as this can give a false higher reading in the area scanned on a DXA scan report, implying the bones are healthier than they actually are.

#### DXA scanning

Your DXA scan results will be sent back to the Doctor who sent in your DXA scan referral.

The IOS recommend re-scanning at a minimum every two years (preferably on the same machine). It is essential that your bone health and response to treatment is monitored.

When you are rescanned, your new results should be compared to your last DXA scan results, to ensure that your DXA scan results have not declined. Any decline should be investigated, contact us for further information.

#### Basic explanation of DXA scan results

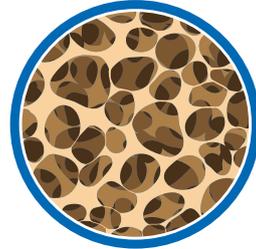
- Mild Osteopenia = T score of -1 to -1.49
- Moderate Osteopenia = T score of -1.5 to -1.99
- Marked Osteopenia = T score of -2 to -2.49
- Osteoporosis = T score of -2.5 or higher
- Severe Osteoporosis = T score of -3 or higher OR A broken bone from a trip and fall or less, unless proven otherwise.



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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?

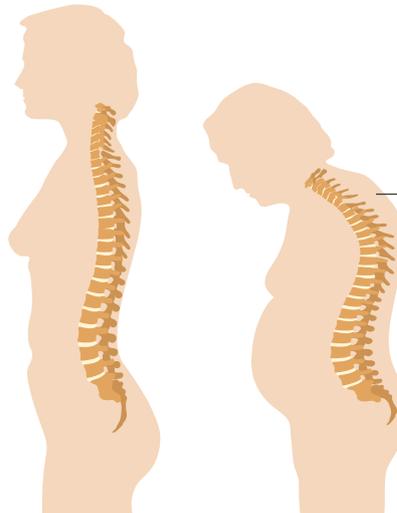
Anyone can develop Osteoporosis, as it affects women and men of all age groups and can even affect children. You will not feel the insides of your bones getting thinner, which is why everyone should check to see if they have risk factors for bone loss. Women over 65 are the highest risk group affected 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