

## **Osteoporosis - Are You at Risk?**

### **What is osteoporosis?**

Osteoporosis refers to thinning of bones or porous bones. This disease causes a reduction in the quality and density of bone. The loss of bone is a silent and progressive occurrence, and often no symptoms are noticed until the first fracture happens. Since osteoporosis makes the bones more fragile and porous, the risk of fracture is greatly increased in people suffering from it. Bones of people with osteoporosis usually become so brittle that a fall or even mild stresses like coughing or bending over can trigger a fracture. Fractures caused by osteoporosis most commonly occur in the hip, spine or wrist, but other bones such as the pelvis or arm too can be affected.

### **People at risk**

Though osteoporosis can affect women and men of all races, studies have shown that Asian and white women, particularly those who are past menopause, are most prone to it. Statistics reveal that around the world, 1 in 5 men and 1 in 3 women are at risk of an osteoporotic fracture. Some studies even estimate that in every 3 seconds, an osteoporotic fracture is occurring somewhere in the world.

There are certain risk factors that increase your chances of being affected by osteoporosis. While some of these risk factors cannot be changed (such as gender or age), some others linked to your personal lifestyle choices are modifiable.

Here are some fixed risk factors:

- Female gender
- Age
- Family history of osteoporosis
- Ethnicity
- Previous fractures
- Having osteopenia (where BMD or bone mineral density is lower than what's normal)
- Long term glucocorticoid therapy
- Hysterectomy/Menopause
- Primary/secondary hypogonadism (in men)
- Rheumatoid arthritis
- Intake of certain medicines

Some modifiable risk factors include:

- Smoking
- Intake of Alcohol
- Insufficient exercise
- Low body mass index
- Vitamin D deficiency
- Poor nutrition
- Eating disorders

- Recurrent falls
- Low dietary calcium intake

### **How to identify if you have osteoporosis**

Since osteoporosis is a silent disease that develops slowly over several years and often doesn't have any warning signs or symptoms until a bone is fractured by a minor fall or sudden impact, you might not know you suffer from it until you break a bone. It's advisable that anyone above 60 years should consult the doctor to get himself/herself tested for osteoporosis.

In older people, one visible sign of osteoporosis is the distinctive stooping (bent forward) position. It occurs when the bones in the spine are fractured, which makes it difficult to support the body's weight.

A bone mineral density (BMD) test is the best way to check whether you have osteoporosis. Apart from helping you know about your bone health, this test can also give information that would help your doctor determine which prevention or treatment steps, if any, are required.

Some other diagnostic tests to determine if you have osteoporosis include:

- DEXA Scan: This dual X-ray absorptiometry measures a person's hip, spine, or total body bone density to estimate fracture risk.
- Blood Test Markers: Whether you are being treated or screened for osteoporosis, your doctor may order a urine or blood test to see the metabolism of bone. The test results would provide indications about the risk factors or progression of your disease.
- Other BMD Tests: Ultrasound and QCT (quantitative computed tomography) are used to check bone density and assess your risk of being affected by osteoporosis.

It's important to remember here that even when you are diagnosed with low bone mineral density, it may not necessarily indicate that you have a high risk of fracture. However, consulting your doctor is the ideal way to know about all your risk factors for broken bones and osteoporosis, and learn about the preventive/positive steps that can help improve your bone health.

### **Prevention**

Doctors suggest certain nutritional and lifestyle advice for building strong bones and maintaining good bone health, which in turn would help people steer clear of osteoporosis. Some of these advices include:

- Ensuring adequate calcium and vitamin D intake
- Taking a nutritious diet
- Avoiding under-nutrition, especially the effects of eating disorders and severe weight-loss diets
- Exercising regularly
- Participating in regular weight-bearing activities
- Avoiding smoking and passive smoking
- Avoiding heavy drinking