



Pushpanjali  
Crosslay Hospital

*Journey to Good Health*

# Osteoporosis



**Prevent it  
Before it Cripples You**

# The Silent Disease

## What is Osteoporosis?

Osteoporosis causes bones to become thin and brittle, making them more likely to break.

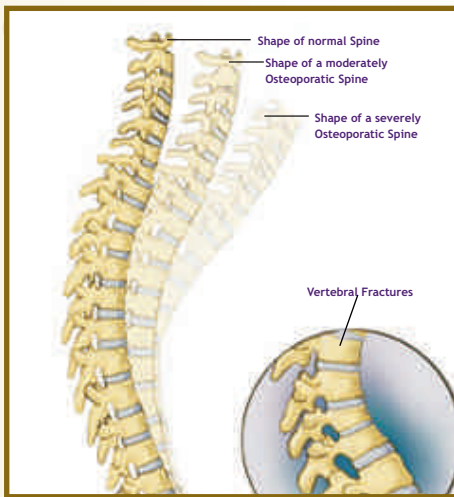
Bones naturally become thinner as age increases since old bone dissolve and are absorbed into the body faster than new bone is made. As this occurs, the bones lose minerals (such as calcium), heaviness (mass), and structure, making them weaker. The thicker the bones are, the longer it takes to develop osteoporosis.



Thus, though the bones are still the same size, they become fragile; increasing thereby the probability of breaking them (bone fracture).

## Symptoms of Osteoporosis

Osteoporosis itself has no specific symptoms. Its main consequence is the increased risk of bone fractures. Osteoporotic fractures occur in the vertebral column, rib, hip and wrist. Sudden back pain, multiple vertebral fractures leading to a stooped posture, loss of height, and chronic pain with resultant reduction in mobility, are some associated symptoms.



## What parts of the body are most affected by Osteoporosis?

The common sites of Osteoporotic fractures are the hips, spine and wrists. As far as spine fractures are concerned, the first fracture may go unnoticed as it may not be painful at all.

# Osteoporosis

## How is Osteoporosis diagnosed?

If diagnosed early, the fractures associated with the disease can often be prevented. Unfortunately, osteoporosis frequently remains undiagnosed until a fracture occurs. An examination to diagnose osteoporosis can involve several steps that predict chances of future fracture, diagnose osteoporosis, or both. It might include:

- an initial physical exam
- various x rays that detect skeletal problems
- laboratory tests that reveal important information about the metabolic process of bone breakdown and formation
- a bone density test to detect low bone density.

Currently, DEXA (Dual-Energy X-ray Absorptiometry) is recognized as an effective diagnostic method to accurately detect the severity of bone mass loss.

## What is DEXA?

DEXA, an imaging technique for measuring the amount of bone loss, is an extremely sensitive test that can detect even the tiniest fracture in the spinal column. It can detect as little as 1% bone loss in the spine, hips and extremities, usually the wrist. It is the gold standard of diagnosing bone mass and is instrumental in helping physicians find osteoporosis before a fracture occurs.

## How safe is DEXA as compared to other tests as it is a radiation based test?

A DEXA-Scan uses an extremely low dose of radiation -- one-quarter to one-tenth that of a regular chest X-ray - and is considered safe for use on any age patient. There are no risk factors or complications associated with the DEXA procedure. However, there are certain groups of people who should not undergo the test:

- Women who are pregnant or who think they might could be pregnant
- If another 'contrast x-ray' has been conducted within the last seven days (eg. upper GI test, CAT scan)
- If a nuclear scan has been conducted within the last seven days (eg. bone scan, thyroid study)

## How is the test performed?

The scan is a simple, painless and non-invasive procedure and takes about 15 to 30 minutes depending on the equipment used and the parts of the body being examined. During the scan the patient will be asked to wear a comfortable, two-piece outfit that has no metal buckles, buttons or zippers.

The patient will be asked to lie on their back on a padded exam table. At some point, the legs will be elevated. During the exam, an overhead arm which houses the camera will travel above the body to take the readings. It is most important that the patient lies completely still so that images are clear and crisp.



# Risk Factors

## Physical

- Age > 65 years
- Family history of osteoporotic fractures
- Past history of fragile fracture
- Asian ancestry
- Thin and small body frames

## Lifestyle

- Cigarette smoking
- Diet low in calcium
- Excessive alcohol consumption
- Lack of exercise
- Use of recreational drugs
- Poor nutrition and poor general health



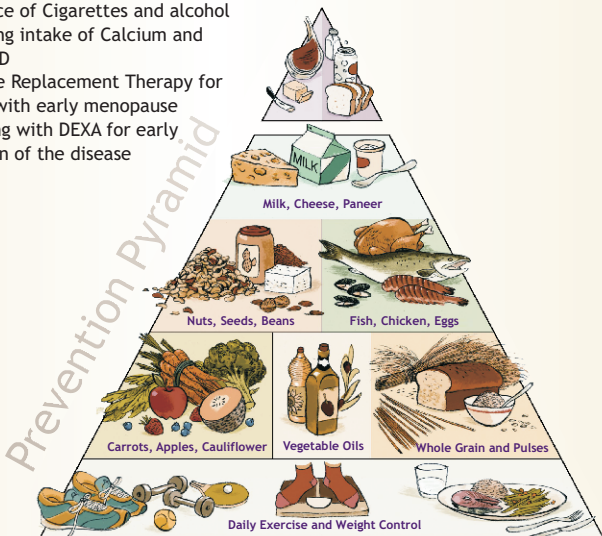
## Medical

- Amenorrhoea >1 year duration (other than pregnancy)
- Bone Measuring Index < 19
- Chronic inflammation, due to diseases (such as rheumatoid arthritis and chronic liver diseases)
- Disorders of the thyroid gland
- Family history of osteoporosis
- Immobility, such as after a stroke or from any condition that interferes with walking
- Low estrogen levels (due to menopause, early menopause or with early surgical removal of both ovaries)
- Past history of fragile fracture

# Prevention of Osteoporosis

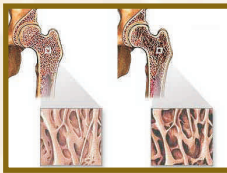
There are many measures that may be taken to reduce the risk of osteoporosis, and the earlier these measures are adopted the more likely it is that they will be effective in the fight against osteoporosis:

- Regular exercise
- Avoidance of Cigarettes and alcohol
- Increasing intake of Calcium and Vitamin D
- Hormone Replacement Therapy for women with early menopause
- Screening with DEXA for early detection of the disease



## Did you know?

- India is one of the largest affected countries in the world.
- Osteoporosis is a major health threat for more than 85 million Indians above the age of 45 years
- One in 3 women and 1 in 5 men in India is affected by Osteoporosis
- In most Western countries, while the peak incidence of Osteoporosis occurs at about 70-80 years of age, in India it may afflict those 10-20 years younger



## Osteoporosis Vulnerability Index

- Are you a menopausal or post-menopausal woman?
- Have you had an early / iatrogenic menopause?
- Did your menstrual period have a long break for reasons other than pregnancy or nursing?
- Is your diet low in milk/ milk products or other sources of Calcium?
- Do you lead a sedentary life?
- Do you consume alcohol regularly, or are a smoker?
- Are you on long term medications like steroids/ anti epileptics etc?
- Are you extremely thin?
- Do you have a family history of Osteoporosis or fractures?
- Are you suffering from any chronic disease related to the digestive

If the answer to any of the questions above is 'yes', you should visit an orthopedic facility as soon as possible.

# Location Map



**For Appointments Contact:**

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