

Osteoporosis

Osteoporosis is a metabolic bone disease that affects 15–25 million people in the US alone.

Osteoporosis is marked by a decrease in the amount of bone tissue, producing brittle, fragile bones that can result in fracture.

Bones constantly change. They are living tissues. Part of their change process is controlled by your metabolism which adds new bone cells (osteoblasts) and removes and remodels bone by special cells (osteoclasts). Growing children have a greater preponderance of osteoblasts but also have osteoclasts. At the older end of the spectrum there are a greater preponderance of osteoclasts at work. Metabolic bone diseases occur when there is a change in that breakdown and build up process.

In osteoporosis, either too much bone is broken down without being replaced or your body is just not able to carry on the process the way it should. In either case, it means you have too little bone mass. And, too little bone mass puts you at greater risk for broken bones — even from something as simple as lifting a box.

All bones can be affected in the disease. But, the most common sites for fractures are the spine, wrist, and hip.

In very rare cases, children may suffer from osteoporosis. If this happens, most often another disease is to blame or sometimes a medication the child takes is at fault.

Causes of Osteoporosis?

Osteoporosis is mainly caused by too little estrogen or too little calcium.

Risk factors include:

- Being female
- Early menopause
- Being Caucasian
- Not having enough calcium
- Cigarette smoking
- Being underweight
- Family history of osteoporosis
- Eating disorders such as anorexia or bulimia
- Lack of physical exercise

Symptoms of Osteoporosis?

Some people who have osteoporosis may have no symptoms until their bones start to break.

Sometimes, in the early stages of the disease people may have a backache and start slowly to become round shouldered.

Once the disease has begun to worsen, a loss of height can occur. And, of course, bones start to break with only minor injuries.

Treatment

If your doctor thinks you might have osteoporosis, she or he will most likely take a complete medical history and do a complete physical exam first. Then, you might need some bone x-rays and even a bone densitometry test. This test measures the density of your bones to see if some mass has been lost.

Treatment of osteoporosis does not cure it. Instead, it helps to minimize bone loss.

Estrogen replacement therapy (ERT) is one of the more common treatments of osteoporosis. It both prevents and treats bone loss and increases bone density in the hip and spine.

Calcitonin is another drug that is sometimes used to decrease bone loss.

The National Research Council recommends 800 mg of calcium each day, yet the average person consumes only about 450 to 550 mg. Milk and dairy products provide the best sources of calcium. But, there are also calcium supplements that you can buy to increase your intake of calcium. Along with the need for calcium, you also need vitamin D to make sure that you absorb the calcium you are getting.

There are also some newer drugs that hold promise for the disease. Some of these are:

- Eli Lilly & Co.'s Evista® has been shown to greatly reduce the number of new spinal fractures in women with osteoporosis.
- Raloxifene can be taken to increase bone mineral density in the spine and hip. It lessens the risk of spinal fracture, too.
- Fosamax® by Merck is for men and women who need daily steroids and who also have some loss of bone density. The drug can help increase hip and spinal bone mass density.