

STRENGTHEN YOUR BONES

THERE IS NO CURE FOR OSTEOPOROSIS BUT PREVENTION CAN HELP

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BONES are constantly being demolished and rebuilt. If reconstruction lags behind demolition, then bone is lost. Osteoporosis is a disease in which the bones thin and become more porous. The disease generally progresses without pain until a bone fractures. Risk factors for osteoporosis include a small body frame, excessive alcohol consumption, cigarette smoking, loss of estrogen, family history of osteoporosis, low dietary calcium intake, and use of some medications such as prednisone and other steroids.

For patients who have osteoporosis, exercise is an essential part of the treatment. Just as regular workouts build muscle, they also maintain and may even increase bone strength. By strengthening your muscles and bones and improving your balance, exercise can reduce the risk of falls and resulting fractures. Exercise works well with estrogen or other medications that increase bone density and strength. Exercise, medication, and proper diet combat osteoporosis more effectively together than any one treatment alone could do. Remember that you're never too old to exercise.

Here are some tips on how to start a programme of weight-bearing exercise and resistance training that will benefit your bones and muscles and also help your general health. Two types of exercises are important for building and maintaining bone mass and density: weight-bearing and resistance exercises.

Weight-bearing exercises are those in which your bones and muscles work against gravity. This is any exercise in which your feet and legs are bearing your weight. Jogging, walking, stair climbing, dancing and soccer are examples of weight-bearing exercise with different degrees of impact. Swimming and bicycling are not weight-bearing. For most people who have osteoporosis, brisk walking is ideal. The full benefits of walking come from a regular schedule—at least 15 to 20 minutes three to four days per week. But if you haven't been active for years, you may need to start gradually. Start at whatever level is comfortable to you. Walk briskly enough to become slightly short of breath. A little puffing shows that you're working your body hard enough to improve your fitness. If you have certain lung, heart, or other medical conditions, you should consult your

doctor about a safe level of activity.

Resistance training exercises are those that use muscle strength to improve muscle mass and strengthen her. These activities include weight lifting, such as using 1 weights and weight machines found at gyms and health clubs. Lifting weights or using strength training machines strengthens bones all over your body, except if you exercise all of the major muscle groups in your arms, and trunk. Following a programme designed by your doctor or a physical therapist is important. Strength training is a slow process, so start at a low level and build up gradually over several months.

Force is a living tissue that responds to exercise by becoming stronger. Just as a muscle gets stronger and bigger the more you use it, a bone becomes stronger and denser when you put demands on it. Thus, a lack of exercise, particularly as you get older, may contribute to lower bone mass or density.

Building strong bones, especially before the age of 30, can be the difference against developing osteoporosis and a healthy lifestyle can be critical important for keeping bones strong.



osteoporosis

calcium from the foods you eat, and it will have to take calcium from the bones.

Vitamin D comes from two sources through the skin following direct exposure to sunlight and from the diet. Experts recommend a daily intake between 400 and 800 IU per day which also can be obtained from fortified dairy products, egg yolk, saltwater fish and liver.

Although there is no better cure for osteoporosis than exercise, currently bisphosphonates (alendronate and risedronate), calcitonin, strontium, parathyroid hormone and raloxifene are approved by the US Food and Drug Administration (FDA) for the prevention and/or treatment of osteoporosis. A Bone Mineral Density test (BMD) is the only way to diagnose osteoporosis and determine your risk for future fractures.

Since osteoporosis can develop undetected for decades until a fracture occurs, early diagnosis is important. A BMD measures the density of your bones (bone mass) and is necessary to determine whether

you need medication to help maintain your bone mass, prevent further bone loss and reduce fracture risk. A BMD test is a special type of test that is accurate, painless and noninvasive.

Two-thirds of those who break a bone due to osteoporosis will never fully recover and require their previous level of functioning. People have to be careful not to fracture their spine. Often



A person going to check-up done

There are several steps you can take to prevent osteoporosis. Prevention of this disease is very important because, while there are treatments for osteoporosis, there is currently no cure. There are four steps to prevent osteoporosis. No one step alone is enough to prevent osteoporosis but all four can help you:

- A balanced diet rich in calcium and vitamin D
- Weight-bearing exercise
- A healthy lifestyle with no smoking or excessive alcohol use
- And bone density testing and medications at regular intervals.

People of all ages require calcium as part of a good diet. Dairy products are good sources of calcium. People who avoid dairy products can obtain calcium from other foods and from calcium supplements. Calcium is needed for the heart, muscles and nerves to function properly. Calcium deficiency is thought to contribute to the development of osteoporosis. Depending on your age, an appropriate calcium intake falls between 1,000 and 1,300 mg a day. Vitamin D is needed for the body to absorb calcium. Without enough vitamin D, body will be unable to absorb

people tend to think of osteoporosis as an issue of women's health, however, it is still an exclusively female condition. Although the condition is more frequent among women, with one in three women over the age of 50 developing osteoporosis, up to one in 12 men will also be affected. Women are more likely to develop osteoporosis than men because women have smaller skeletons, their bone loss begins earlier, and menopause brings on a period of rapid bone loss. There are also factors that place men at a greater risk.

Preventing osteoporosis, diet, exercise, and good medical care are the best ways to do so. Many cases of osteoporosis can be prevented. Other cases can be controlled. Osteoporosis prevention has been described as a "three-legged stool," because it is based on diet, exercise, and good medical care. ■

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