

Exercising with Osteoporosis

Osteoporosis has become a part of our normal vocabulary these days; it seems we all know someone who has this significant loss of bone mass, or its precursor, osteopenia (low bone mass). All of us experience some small degree of bone loss every year, after we're thirty-five, but it is very common amongst older adults in industrialized countries. Once the bone begins to lose mass, it takes on a "honeycomb" appearance, and it loses its ability to withstand fracture. Seniors are much more likely than, say, a young adult, to sustain a fracture through a minor fall or even a sneeze. More women seem to develop primary osteoporosis in their post-menopausal years, about 50-75 years old, due to the normal estrogen deficiency, and the rate of bone loss exceeds the rate of bone formation. This disease tends to show up in men in their 70's. Secondary osteoporosis can develop because of various medications, such as ongoing prednisone (glucocorticoid) therapy.

But menopause and medication are not the only risk factors for this disease; some others are:

Low body mass index (BMI), being too thin

Not enough exercise, being sedentary

Smoking

More than 3 alcoholic drinks per day

Not enough Vitamin D (helps to absorb calcium into the bones)

Taking in too much protein, caffeine, sodium and Vitamin A

Diseases such as anorexia, bulimia, celiac disease and rheumatoid arthritis (RA)

People with this disease are likely to be quite deconditioned, due to their physical limitations and fear of injury and falling. However, regular physical activity, such as walking, aerobic activity and resistance training can improve the bone mineral density (BMD) in this population. Exercise also provides significant improvements in cardiovascular health, stronger muscles, and better balance. Stronger muscles also help safeguard bone mass.

Ideally, someone with osteoporosis should consult with both a physician and a personal trainer certified in dealing with exercise as treatment for this disease. An exercise program should include:

Exercises to improve balance

Exercises for the upper and lower body, and the core muscles – adaptations in bone are site specific, so all areas of the body must be worked

Core exercises that do NOT include forward flexion or twisting of the spine, such as crunches, sit-ups, and bicycle crunches. Exercises that flex the spine forward increase the risk of fractures in the vertebrae.

Exercises that limit weight bearing – doing water-based exercise, swimming, or chair exercises may be better choices than traditional exercise programs

Start with light weights and more reps; as bone mass and muscle strength improve, you may be able to progress to heavier weights and fewer reps

Your workout environment should be evaluated for tripping hazards, such as mats or obstacles on the floor. Wall railings and side rails on cardio equipment are useful in protecting you from falls.

Regular physical activity, modified correctly, is crucial to dealing effectively with osteoporosis, as it is a long-term and ongoing condition.

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