

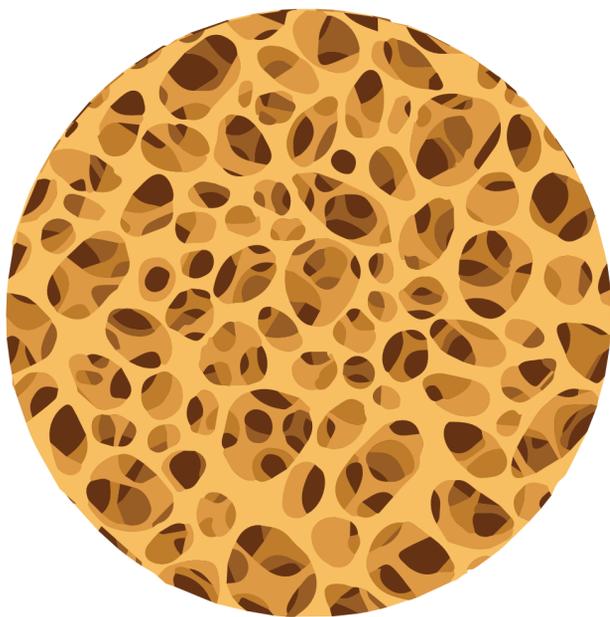
Osteoporosis

Preventing and reversing bone loss with exercise.

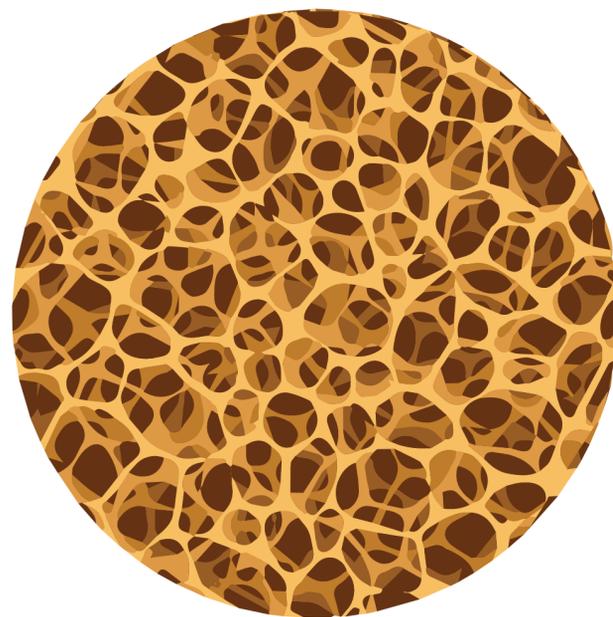
Osteoporosis is the thinning of bones, which increases the chance of fracture.

Like all the tissue in the body, bones are constantly being torn down and rebuilt. In a year and a half to two years every cell in our bone structure will be replaced.

However the bones don't necessarily rebuild the same as they were. They rebuild on "use it or lose it" basis. When the loads on the bones have been going down, from decreased activity, the bones will rebuild lighter than before – this is what causes osteoporosis.



Normal



Osteoporosis

As activity decreases, the body determines that our current bone strength is no longer necessary and so the body rebuilds lighter bones. Over time, this constant process of rebuilding lighter leads to a marked reduction in bone strength.

Never in the four million years of humankind's existence have we lived without regular strenuous activity. Our bodies have no evolutionary experience with this situation and therefore have not developed a stopping point. The body just keeps rebuilding lighter and lighter until a bone may break from something as easy as stepping off a curb.

It is widely believed that many of the hip fractures that “happened when the person fell,” actually happened first, causing the fall. In this instance the bones had deteriorated so badly that they literally collapsed from the stress of walking!

Researchers have been searching for many years to try and find a drug that will increase bone density without exercise. Despite their efforts it is questionable whether any of the “osteoporosis” drugs actually add bone and there is much concern over the side effects of these drugs.

The U.S. Food and Drug administration warned in October 2010 that women with osteoporosis who take biophosphonates, such as alendronate (Fosamax), ibandronate (Boniva), and risedronate (Actonel) for a minimum of five years may actually face an increased risk of bone fractures. The next generation of drugs required a warning limit of 24 months due to concerns that it may cause bone cancer as it did with lab animals. Ironically the drugs the pharmaceutical companies are saying will “improve” bone strength may in fact be making the situation worse.

Research has clearly shown that bone thinning can be halted and reversed at any age with strengthening exercise.

“Exercise may be the greatest stimulator that bone ever gets, and may maintain and even increase your bone mass,” says Dr. Everett L. Smith, Director of the Biogerontology Lab, Department of Preventive Medicine at the University of Wisconsin.

Contrary to popular belief, loss of bone mass is not a “normal” part of the aging process. It is simply a response to a less active lifestyle. Research clearly indicates that in addition to osteoporosis, many health problems are falsely attributed to aging, while inactivity is the real cause.

Bone, like muscle, responds to exercise by growing stronger, although a bit slower than muscle. We generally are unaware of our bone strength, since unlike muscle, it is invisible and difficult to measure. You can be sure if your muscle strength is decreasing your bone strength is also decreasing.



Since bone is constantly in the process of tearing down and rebuilding, it is possible to reverse the deterioration by sending the message to the body to rebuild stronger bones. This is done by rebuilding the muscles.

Age has much less effect on a person's response to exercise than has been commonly believed. In a study performed with seniors of both sexes, ranging in age from 85 to 99, using strength machines, the group more than doubled their muscular strength in 10 weeks. When proper strengthening exercise and nutrition are initiated, muscle and bone strengthening absolutely can be achieved at any age.

The key is the right kind of exercise. Exercises like yoga or cardiovascular activities such as walking, swimming, cycling, or running are excellent for heart and over all health. But research has shown them to be ineffective for maintaining building bone. They do not provide the necessary loads on the bones to prevent or reverse bone loss.

Strengthening exercise with free weights or machines have proven to be effective for bone building. Anyone any age can participate in a strengthening program, as long as they begin with light weights. When the proper equipment is used, the resistance can be reduced to almost nothing and moved up in small increments. For anyone beginning a strengthening program an appointment with a trainer is a good idea, to get started right.

The American College of Sports Medicine recommends incorporating weight bearing exercise as an essential part of a fitness and health-care program. Ideally don't wait until you have a problem. Keep your muscles and your bones strong and healthy by including a weight-bearing exercises in your regular exercise routine.

In addition to reversing osteoporosis, strength training helps prevent joint pain, back problems, type 2 diabetes and a long list of other health problems.

If you have a concern, speak to us. We can establish a balanced weight bearing exercise program that can take as little as 15 minutes twice a week and lead you to a stronger, longer future!

- Mike Arteaga

Owner, founder (1973), health and fitness consultant