Overview

Osteoporosis causes bones to become weak and brittle. In fact, bones can become so brittle that a fall or even a relatively mild stress like coughing can cause a broken bone (technically known as a bone fracture). Osteoporosis-related fractures most commonly occur in the hip, wrist, or spine. Perhaps most astonishingly, many of those with osteoporosis—and even resultant fractures—are totally unaware they have a problem. Consider this: the bones of the back (the vertebrae) are the most common site for osteoporotic fractures. Two-thirds of the time these fractures occur without the person realizing it. However, over a period of months or years, height loss or a progressively more hunched posture can bear the tell-tale signs of silent osteoporotic fractures.

Osteoporosis has a “cousin” called osteopenia. This is a state of low bone mass, which is significantly lower than that of a person with strong, healthy, well-mineralized bones—but not low enough to qualify for osteoporosis. Recent data indicate just how common these conditions are. Fifty-two percent of the US population has osteopenia or osteoporosis of either or both their spine and hips—and more than 300,000 Americans sustain hip fractures annually. However, this is just the tip of the iceberg when it comes to a truly escalating global problem. Worldwide there were 1.66 million hip fractures in 1990. That figure is expected to balloon to 6.26 million by 2050. Clearly, we all need to be concerned about bone health.

Basic Bone Physiology

Bone is living tissue that is constantly being broken down and replaced. Separate cells coordinate these functions: osteoclasts break down bone while osteoblasts build it up. This breaking down and building up serves an extremely important purpose: your bones are designed to have optimal strength with minimum weight. Constant remodeling of bone tissue allows the body to add strength to bones that are being heavily used or stressed, and to remove bone tissue from areas where strong, heavy bones do not appear to be needed. Osteoporosis occurs when the creation of new bone doesn’t keep up with the removal of old bone.

Our bones reach their optimal strength and mineralization when we achieve our peak bone mass. This typically occurs by the age of 30. However, peak bone mass may occur somewhat later in selected individuals. For this reason, physicians often use the age of 40 as the age at which peak bone mass is attained. The key message from this is obvious: we should focus on building better bone mass when we are young. However, don't despair: it is never too late to help your bones be healthier.
**Natural Treatments for Osteoporosis**

**Exercise.** Use your bones. As we have seen, bone is actually designed to respond to stress. Gentle stress like walking or appropriate weight lifting can play a role in stimulating the osteoblasts to build up your bone. But the effects are more than short-lived. The more exercise you do, the stronger your muscles become, and those stronger muscles put more stress on your bones, further strengthening them.

One of the biggest mistakes made by those with osteoporosis is to limit their activity due to fear of breaking a bone. This is actually a common concern following a fracture. However, judicious exercise is a vital component of any program to prevent future bone damage. If you have a question as to what is safe, check with a health professional such as a physician or physical therapist.

Want to stress your bones even when not doing formal exercise? Why not check out a weighted vest, sometimes simply known as a *weight vest*. Worn under or over your clothing, these devices typically feature adjustable weights that put additional weight on your frame. Research studies have shown that such vests can actually improve bone health—you guessed it, by giving a moderate increase in stress to your bones. Looking to purchase such a vest? Just plug “weighted vest for osteoporosis” into a search engine. You'll find a myriad of options.

**Fresh air.** When it comes to healthy bones, cigarette smoking is public enemy number one on the air quality front. Research indicates that smoking even one pack per day throughout one's adult life can translate into an up to ten percent reduction in bone density. That may not sound like a huge amount, but because bone density steadily declines after our age of peak bone mass, even small percentage decreases in density add to steadily weakening bones. Furthermore, the negative effects of smoking are powerful enough to totally erode the benefits of at least one common medication used to help bone health.

**Temperance.** Temperance is the principle of using things that are good in moderation—and completely avoiding that which is harmful. From our discussion on addiction, it is obvious that cigarette smoking should be classed with those items to totally avoid.

When it comes to the consumption of alcoholic beverages which aspect of temperance should be brought to play: total avoidance or moderate use? In the bone health department there is no question that heavy alcohol consumption undermines bone health. Many health professionals stop there—and assume moderate alcohol consumption is safe. However, if we really take a broad perspective on bone health, the balance swings in the total avoidanace direction. Consider one reason why: even moderate use of alcohol increases breast cancer risk. In addition to being one of the most common and devastating female cancers—breast cancer is a real contributor to thousands of bone fractures annually (breast cancer has a tendency to spread to bone, further weakening its structure).

A variety of cancers that don't typically spread to bone are also increased by moderate drinking. This data (combined with alcohol's known connection with fractures from increased risk of unintentional injuries) provides enough evidence for us to recommend total alcohol avoidance.

**Food.** Calcium is essential for healthy bones, with some 70 percent of bone weight being made up of calcium pyrophosphate crystals. All experts agree that calcium intake is vital for the prevention and treatment of osteoporosis. However, the question often revolves around what is really an optimal daily intake. In a number of research studies that documented better bone density with calcium supplementation, participants were taking up to 2,000 mg of calcium per day (when supplements and dietary intake were combined). Some feel this is still a reasonable target, encouraging those with osteoporosis to shoot for 1,500 to 2,000 mg/day. However, individuals with a history of kidney stones or heart disease may want to shoot for a lower target such as 1,000–1,200 mg per day. Check with your health care providers if you have questions.

Should we get our calcium from food or supplements? We feel the best source for calcium is cooked green leafy vegetables like kale, mustard greens, and collard greens. Consider some of our rationale:
1. Whole foods give a host of nutrients as opposed to merely the calcium one gets from a pill.

2. Some evidence indicates our bodies may get more benefit from the calcium in some greens than in milk (this is due to something called better bioavailability, which means our bodies can absorb more of the calcium—this is not true, however, of high-oxalate vegetables like spinach and Swiss chard).

3. Some medical research links higher protein intake with weakened bones; going with greens tends to keep your protein intake lower than if you’re emphasizing dairy products.

**Sunlight.** Vitamin D is vital for bone health. Whether you’re getting it from the sun or from supplements, you need the sunshine vitamin for optimal bone health.

**Optimal sleep** is good for your bones. One of the hormones that helps promote bone health is human growth hormone (GH)—and GH production is optimal only if we are getting adequate sleep. Getting to bed early and not having eaten in close proximity to bed time also appear to be important for ensuring optimal GH production. Therefore, we recommend not eating within several hours of retiring for the day—and being asleep by 10 PM.

**Summary**

Natural, lifestyle-based strategies found in the Life-Start acronym provide some of the keys to achieving optimal bone health. Learn more about these nine strategies by visiting the LifeStart Seminars website and downloading the FREE LifeStart eBook. For best results, consult with your healthcare providers and find a local support center where you can interface with supportive peers. Our online directory can help you locate such individuals in your community. Furthermore, our website provides a variety of additional resources to help you in your pursuit of better bone health. These resources include physician-recommended books, DVDs, and other health products to help you prevent osteoporosis naturally.

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