



## Inside this issue:

Healthy Bones	2
Heart-Healthy Foods	3
Arthritis Complications	4
The Story of Stress	5
Changes at TMA	6

## Osteoporosis Resources

- *National Osteoporosis Foundation* ([www.nof.org](http://www.nof.org))
- *Foundation for Osteoporosis Research and Education* ([www.fore.org](http://www.fore.org))
- *National Institute of Health Bone Health Resource Center* ([www.niams.nih.gov/health\\_info/bone](http://www.niams.nih.gov/health_info/bone))

## Healthy Bones

It can lurk in your bones, and you may be completely unaware of it. It can make you more prone to bone fractures; in severe cases, it can even affect your height. According to a foundation dedicated to it\*, this mysterious affliction is a serious health threat for an estimated 44 million Americans.

Figured it out? We're talking about osteoporosis, a condition where bone loses density (or mass). The bone becomes abnormally porous (hence the term: *osteo* for "bone" and *porosis* for its effect), weaker, and more susceptible to breaks. It can go undetected because the loss of bone mass is its only symptom, and someone with this condition might not realize until they suffer a painful fracture. Those 44 million Americans mentioned above suffer from low bone density, a serious risk factor for developing full-blown osteoporosis.

## So What Does This Mean?

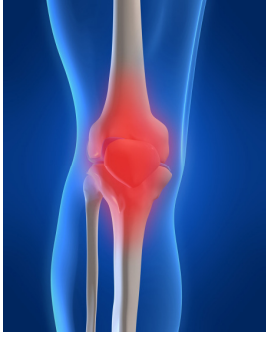
Bone density is directly related to bone strength. In turn, bone strength determines things like how much stress a bone can take before it fractures – more than just your muscles play a role in how much weight you can lift! In severe cases, something as simple as a firm hug – *Hi, Grandma!* – can break bones.

As men and women age, their bones lose mass. Women are especially vulnerable to osteoporosis, however. Estrogen plays an important role in maintaining bone density, and after menopause, women experience a drop in estrogen. As a result, they lose bone

density faster than men.

Some other notable risk factors for osteoporosis include:

- **Race.** Caucasian and Asian ethnicities are more at risk for osteoporosis, but other ethnicities can also develop this condition.
- **Family history.** If family members have suffered from osteoporosis, thanks to genetic factors, your own chances go up.
- **Lack of exercise.** A good fitness regime helps more than just your cardiovascular system.
- **Insufficient calcium.** Bones are not static; they grow and rebuild themselves with calcium. Calcium is lost through sweat and waste, and it must be replenished in sufficient quantities. As a result, poor nutrition is a serious contributing factor to osteoporosis.
- **Insufficient Vitamin D.** This vitamin helps the body absorb and use calcium; without it, the bones can't utilize enough calcium to replenish themselves.
- **Unusually low estrogen levels.** Because estrogen plays a role in maintaining bone mass, less estrogen means faster bone loss.



**1 out of every 2 women, and 1 out of every 4 men, will experience a fracture due to osteoporosis in his/her lifetime.**

**Don't take your bones—or the role they play in your quality of life—for granted.**



**Osteoporosis is responsible for more than 1.5 million fractures every year.**

## How Do I Know If I Have Osteoporosis?

If you're concerned, or if you can identify one or more risk factors in your own situation, you may want to visit a doctor. Routine x-rays can identify the condition, but only after significant bone loss. Most major medical organizations, including the American Medical Association and National Osteoporosis Foundation, recommend a dual energy x-ray absorptiometry scan (DXA). A DXA scan uses very little radiation but is significantly more precise than a standard x-ray.

With the DXA, your doctor compares your bone mass to the average peak bone density of young adults of the same sex and race; this yields something called a T-score, which expresses how far from the average your bone density falls. Osteoporosis is a T-score of -2.5 or below (technically, this means your bone density is 2.5 standard deviations below the average). Osteopenia, or lower bone mass than normal, is indicated by a T-score between -1 and -2.5.

## What Can I Do About It?

Osteoporosis is a great example of that old adage, an ounce of prevention is worth a pound of cure.

- **Exercise.** Aerobic, weight-bearing, and resistance exercises can all help maintain or increase bone mass. Physical activity is also bene-

ficial in indirect ways. For example, a physically fit person is less susceptible to falls. Be careful, though: avoid exercises and activities that subject the bones to a level of stress that may fracture them.

- **Stop smoking.** One of the (many) side effects of smoking is a decrease in estrogen. As we've already discussed, your bones won't thank you for it.
- **Proper nutrition.** Make sure your diet includes plenty of calcium and Vitamin D. Supplements may be indicated in some circumstances. Check out the Resources section below for more information on determining how much is enough, and where you can find the best dietary or supplementary sources.

- **Hormone therapy.** If you suffer from low estrogen, whether from smoking, the body's natural aging process, or another cause, taking estrogen as a supplement can help combat osteoporosis. In fact, estrogen can even help reverse the process of bone loss. Your doctor will have more information about this option.

- **Medications to prevent bone-loss.** The most effective drugs prevent the bones from breaking

down before being rebuilt. These medications work best with the early detection of osteoporosis. Please consult with your physician to determine if medications would benefit you.

Fortunately, osteoporosis is a well-documented condition that can be prevented or offset by simple dietary and lifestyle choices well within your power to make. You have no reason to fear a "hidden lurker" in your bones – start today by looking at the preventative steps you can take. If appropriate, consult with your physician. Don't take your bones – or the role they play in your quality of life – for granted.

\*The National Osteoporosis Foundation