



## Bones

By Wendy Marks  
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This is in part excerpted from an NIH (National Institute of Health) July 2014 report about bone density. I have updated, modified, and changed it to a more holistic and modern approach.

Our bones support us and allow us to move. They are the framework of our body structure, our scaffolding, and so much more. They hold us together, determine our height, and influence our body shape and our facial features. They protect our brain, heart, lungs and other organs from injury. Our bones also store minerals, which help keep our entire body strong. They help form our blood cells, releasing them into the body when we need them for other uses. We can do a lot to keep our bones healthy and strong. Eating foods rich in calcium and vitamin D, getting plenty of exercise, and having good health habits are the start.

Whether it's heredity or habit, disease or aging, our bones can become weak and even break. Broken bones (fractures) can be painful and sometimes need surgery to heal. They can also cause long-lasting health problems and mobility issues.

There are many kinds of bone diseases. The most common one is osteoporosis. With osteoporosis, our bones become weak and are more likely to break. People with osteoporosis most often break bones in the wrist, spine, and hip. The second common bone issue is arthritis, a natural part of the aging process which is usually very manageable with anti-inflammatory supplements.

Although we don't often think much about them unless they are causing us trouble, our bones are alive. Every day, our body breaks down old bone and puts new bone in its place. As we get older, our bones can break down more bone than is replaced. It is normal to lose some bone mass as we age. You will not have the bones of an 18-year-old at 85, no matter how well you take care of them. I can't resist an anecdote here: When my mom was 90 years old she went for a bone density test. She called me the next day and said "I have the bones of a 24-year-old." I replied "give them back." She didn't think it was funny. But I do...

Bone loss usually happens over a long period of time and doesn't typically hurt, unless in a much-used and abused joint, often the hip. For many people, a broken bone is the first sign that they have osteoporosis. We should do all we can to prevent that.

### *Things we can control*

- **Diet.** Getting too little of certain nutrients can increase your rate of bone loss. Not getting enough vitamin D can also increase your risk. Vitamin D is important because it helps the body use the calcium in your diet. More on this below.
- **Physical activity.** Like muscles, bones become stronger— and stay stronger— with regular exercise.
- **Body weight.** Being too thin makes you more likely to get osteoporosis. Finally, a good thing about being overweight... But that only works with a small amount overweight... Sigh...
- **Smoking.** Smoking cigarettes can keep your body from absorbing the calcium in your diet. This has a greater effect on women, as it may speed up the hormone depletion normal with menopause.

- **Alcohol.** People who drink a lot are more likely to get osteoporosis. That doesn't mean normal alcohol consumption, like a weekly martini, but overuse of alcohol on an ongoing basis.
- **Medicines.** Certain medicines can cause bone loss. These include steroids often prescribed for arthritis, asthma, and many inflammatory diseases. Make sure to check those patient information sheets from the pharmacist and talk with your doctor about other drugs that can affect bone density. There are quite a few.

### *What we cannot control*

- **Age.** Like arthritis, your chances of getting osteoporosis increase as you get older.
- **Gender.** You have a greater chance of getting osteoporosis if you are a woman. Women have smaller bones than men and lose bone faster than men do because of the hormone changes that happen after menopause.
- **Ethnicity.** White women and Asian women are most likely to get osteoporosis. Hispanic women and African American women are also at risk, but less so. As many of us are finding out through *23 and Me* and other similar platforms, ancestry is complex, so don't assume you are not at risk. I'd assume we are all in need of good bone health and go from there...
- **Family history.** Having a close family member who has osteoporosis or has broken a bone may be a risk indicator.

Since more women get osteoporosis than men, many men think they are not at risk for the disease. Not so fast, guys— you want to live to a ripe old age, but that pleasure often comes with less bone density.

If you have one of the following health problems, talk to your doctor about your bone health: anorexia, alcohol problems, drug or opioid addiction, asthma, cancer, diabetes, Cushing disease, thyroid or parathyroid issues, IBS, lactose intolerance, auto immune disorders.

Since osteoporosis may not have any symptoms until a bone breaks, it is important to have a regular bone density test. A bone density test measures how strong (dense) your bones are and whether or not you have osteoporosis. It can also help you determine what your chances are of breaking a bone. Bone density tests are quick, safe, and painless.

It is never too early or too late to take care of your bones. There has been a great deal of research about dietary supplements and exercise programs for rebuilding bones. The next few decades will see great changes in how we deal with these issues. For now, the following steps can help you improve your bone health:

- **Eat a well-balanced diet rich in calcium and vitamin D, adding supplements for bone density if you are over 50.** Good sources of calcium include low-fat dairy products, and foods and drinks with added calcium. Seeds, cheeses, yogurt, sardines, beans and lentils, almonds, whey, tofu, spinach, kale, okra... even if you are vegan you can do well and supplement effectively. Good sources of vitamin D include egg yolks, saltwater fish, liver, and milk with vitamin D. I believe that everyone over 50 should be taking D3, Magnesium, K2, omega fatty acids for flexibility, and boron. You can look for a "bone vitamin" that has these things; however, **we need to be careful about supplementing with calcium that is not food sourced.** There is evidence that this type of calcium may not break down in our systems and may actually cause arterial clogging and other issues. Fruits and vegetables also contribute other nutrients that are important for bone health. As usual, the advice to "eat a rainbow" (plenty of colorful produce) applies here.
- **Get plenty of physical activity (and a bit of sun).** Like muscles, bones become stronger with exercise. The best exercises for healthy bones are strength-building and weight-bearing,

like walking, climbing stairs, lifting weights, and dancing. Try to get 30 minutes of exercise each day. As for sun exposure, 15 minutes a day allows your skin to make vitamin D; if you live in a northern climate and don't supplement, you may well be deficient.

- **Live a healthy lifestyle.** Don't smoke, and, if you choose to drink alcohol, don't drink too much.
- **Talk to your doctor about your bone health.** Go over your risk factors with your doctor if you are over 50— or earlier if you think you are at greater risk— and ask if you should get a bone density test. It's good information to have. It provides a starting point for healthy bone maintenance.
- **Prevent falls.** I know this is obvious but falling down can cause a bone to break, especially in someone with osteoporosis. Some falls can be prevented. Check your home for dangers like loose rugs and poor lighting. Have your vision checked. Increase your balance and strength by walking every day and taking classes like Tai Chi. Get night lights for the hall, and if getting up at night be sure to notice where your pets are. It's surprising how many folks trip over Fluffy.

Long healthy life is a wonderful thing. Taking care of bone density and being proactive can really help our quality of life.

Namaste,  
Wendy