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Osteoporosis

Q: What is osteoporosis?

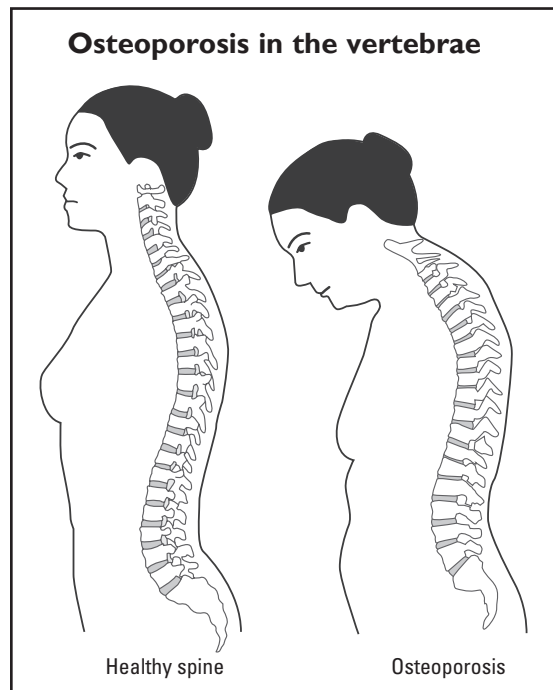
A: Osteoporosis (OS-tee-oh-poh-ROH-sis) is a disease of the bones. People with osteoporosis have bones that are weak and break easily.

A broken bone can really affect your life. It can cause severe pain and disability. It can make it harder to do daily tasks on your own, such as walking.

Q: What bones does osteoporosis affect?

A: Osteoporosis affects all bones in the body. However, breaks are most common in the hip, wrist, and spine, also called vertebrae (VUR-tuh-bray). Vertebrae support your body, helping you to stand and sit up. See the picture below.

Osteoporosis in the vertebrae can cause serious problems for women. A frac-



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I used to think that women don't need to worry about frail bones until they get older. I was wrong! I recently learned that women of all ages need to take steps to help keep their bones strong.

Millions of women already have or are at risk of osteoporosis. So, I do what I can to keep my bones as strong as they can be. I make sure to get enough calcium and vitamin D, I don't smoke or drink too much alcohol, and I try to walk with my neighbor in the mornings. I also talked to my doctor about taking medicine to help build bone mass and asked my doctor about a bone density test. Strong bones will lower my risk of breaking a bone and keep me healthy as I age.

ture in this area occurs from day-to-day activities like climbing stairs, lifting objects, or bending forward. Signs of Osteoporosis:

- Sloping shoulders
- Curve in the back
- Height loss
- Back pain
- Hunched posture
- Protruding abdomen

Q: What increases my chances of getting osteoporosis?

A: There are several risk factors that raise your chances of developing osteoporosis. Some of these factors are things you can control, while some you can't control.

Factors that you can't control:

- Being female
- Getting older
- Menopause



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- Having a small, thin body (under 127 pounds)
- Having a family history of osteoporosis
- Being over 65 years old
- Being white or Asian, but African American women and Latinas are also at risk
- Not getting your period (if you should be getting it)
- Having a disorder that increases your risk of getting osteoporosis, (such as rheumatoid arthritis, type 1 diabetes, premature menopause, and anorexia nervosa)
- Not getting enough exercise
- Long-term use of certain medicines, including:
 - Glucocorticoids (GLOO-koh-KOR-ti-koids) — medicines used to treat many illnesses, including arthritis, asthma, and lupus
 - Some antiseizure medicines
 - Gonadotropin (GOH-nad-oo-TROO-pin) -releasing hormone — used to treat endometriosis (en-doh-mee-tree-O-sis)
 - Antacids with aluminum — the aluminum blocks calcium absorption
 - Some cancer treatments
 - Too much replacement thyroid hormone

Factors that you can control

- Smoking
- Drinking too much alcohol. Experts recommend no more than 1 drink a day for women.

- A diet low in dairy products or other sources of calcium and vitamin D
- Not getting enough exercise

You may also develop symptoms that are warning signs for osteoporosis. If you develop the following, you should talk to your doctor about any tests or treatment you may need:

- Loss in height, developing a slumped or hunched posture, or onset of sudden unexplained back pain.
- You are over age 45 or a post-menopausal and you break a bone.

Q: How can I find out if I have weak bones?

A: There are tests you can get to find out your bone density. This is related to how strong or fragile your bones are. One test is called dual-energy X-ray absorptiometry (DXA or dxa). A DXA scan takes X-rays of your bones. Screening tools also can be used to predict the risk of having low bone density or breaking a bone. Talk with your doctor or nurse about this test or tools to assess risk.

Q: When should I get a bone density test?

A: If you are age 65 or older, you should get a bone density test to screen for osteoporosis. If you are younger than 65 and have risk factors for osteoporosis, ask your doctor or nurse if you need a bone density test before age 65. Bone density testing is recommended for older women whose risk of breaking a bone is the same or greater than that of a 65-year-old white woman with no risk factors other than age. To find out your fracture risk and whether you



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need early bone density testing, your doctor will consider factors such as:

- Your age and whether you have reached menopause
- Your height and weight
- Whether you smoke
- Your daily alcohol use
- Whether your mother or father has broken a hip
- Medicines you use
- Whether you have a disorder that increases your risk of getting osteoporosis

Q: How can I prevent weak bones?

A: The best way to prevent weak bones is to work on building strong ones. No matter how old you are, it is never too late to start. Building strong bones during childhood and the teen years is one of the best ways to keep from getting osteoporosis later. As you get older, your bones don't make new bone fast enough to keep up with the bone loss. And after menopause, bone loss happens more quickly. But there are steps you can take to slow the natural bone loss with aging and to prevent your bones from becoming weak and brittle.

1. Get enough calcium each day.

Bones contain a lot of calcium. It is important to get enough calcium in your diet. You can get calcium through foods and/or calcium pills, which you can get at the grocery store or drug store. Getting calcium through food is definitely better since the food provides other nutrients that keep you healthy. Talk with your doctor or nurse before taking calcium pills to see which kind is best for you. Taking more calcium pills

than recommended doesn't improve your bone health. So, try to reach these goals through a combination of food and supplements.

Here's how much calcium you need each day.

Daily Calcium Requirements	
Ages	Milligrams(mg) per day
9-18	1,300
19-50	1,000
51 and older	1,200

Pregnant or nursing women need the same amount of calcium as other women of the same age.

Here are some foods to help you get the calcium you need. Check the food labels for more information.

Foods Containing Calcium		
Food	Portion	Milligrams
Plain, fat free yogurt	1 cup	452
Milk (fat-free)	1 cup	306
Milk (1 percent low-fat)	1 cup	290
Tofu with added calcium	1/2 cup	253
Spinach, frozen	1/2 cup	146
White beans, canned	1/2 cup	106

The calcium amounts of these foods are taken from the United States Department of Agriculture's *Dietary Guidelines for Americans*.

2. Get enough vitamin D each day.

It is also important to get enough vitamin D, which helps your body absorb calcium from the food you eat. Vitamin D is produced in your skin when it is exposed to sunlight. You need 10 to 15



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minutes of sunlight to the hands, arms, and face, two to three times a week to make enough vitamin D. The amount of time depends on how sensitive your skin is to light. It also depends on your use of sunscreen, your skin color, and the amount of pollution in the air. You can also get vitamin D by eating foods, such as milk, or by taking vitamin pills. Vitamin D taken in the diet by food or pills is measured in international units (IU). Look at the pill bottle or food label for the IU amount.

Here's how much vitamin D you need each day:

Daily Vitamin D Requirements	
Ages	IU per day
19-70	600
71+	800

Although it's difficult to get enough vitamin D through food, here are some foods that can help. Check the food labels for more information.

Foods Containing Vitamin D		
Food	Portion	IU
Salmon, cooked	3 1/2 oz	360
Milk, vitamin D fortified	1 cup	98
Egg (vitamin D is in the yolk)	1 whole	20

These foods and IU counts are from the National Institutes of Health Office on Dietary Supplements.

White milk is a good source of vitamin D, most yogurts are not.

3. Eat a healthy diet.

Other nutrients (like vitamin K, vitamin C, magnesium, and zinc, as well as protein) help build strong bones too.

Milk has many of these nutrients. So do foods like lean meat, fish, green leafy vegetables, and oranges.

4. Get moving.

Being active helps your bones by:

- Slowing bone loss
- Improving muscle strength
- Helping your balance

Do weight-bearing physical activity, which is any activity in which your body works against gravity. There are many things you can do:

- Walk
- Dance
- Run
- Climb stairs
- Garden
- Jog
- Hike
- Play tennis
- Lift weights
- Yoga
- Tai chi

5. Don't smoke.

Smoking raises your chances of getting osteoporosis. It harms your bones and lowers the amount of estrogen in your body. Estrogen is a hormone made by your body that can help slow bone loss.

6. Drink alcohol moderately.

If you drink, don't drink more than one alcoholic drink per day. Alcohol can make it harder for your body to use the calcium you take in. And, importantly, too much at one time can affect your balance and lead to falls.

7. Make your home safe.

Reduce your chances of falling by



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making your home safer. Use a rubber bath mat in the shower or tub. Keep your floors free from clutter. Remove throw rugs that may cause you to trip. Make sure you have grab bars in the bath or shower.

8. Think about taking medicines to prevent or treat bone loss.

Talk with your doctor or nurse about the risks and benefits of medicines for bone loss.

Q: How can I help my daughter have strong bones?

A: Act now to help her build strong bones to last a lifetime. Girls ages 9-18 are in their critical bone-building years. Best Bones Forever!TM (<http://www.bestbonesforever.gov>) is a national education effort to encourage girls ages 9-14 to eat more foods with calcium and vitamin D and get more physical activity. There is also a Web site for the parents available at <http://www.bestbonesforever.gov/parents>. This site gives parents the tools and information they need to help their daughters build strong bones during the critical window of bone growth — ages 9-18.

Q: What if dairy foods make me sick or I don't like to eat them? How can I get enough calcium?

A: If you're lactose intolerant, it can be hard to get enough calcium. Lactose is the sugar that is found in dairy products like milk. Lactose intolerance means your body has a hard time digesting foods that contain lactose. You may have symptoms like gas, bloating, stomach cramps, diarrhea, and nausea. Lactose intolerance can start at any age but often starts when you get older.

Lactose-reduced and lactose-free products are sold in food stores. There's a great variety, including milk, cheese, and ice cream. You can also take pills or liquids before eating dairy foods to help you digest them. You can buy these pills at the grocery store or drug store. Please note: If you have symptoms of lactose intolerance, see your doctor or nurse. These symptoms could also be from a different, more serious illness.

People who are lactose intolerant or who are vegans (eat only plant-based foods) can choose from other food sources of calcium, including canned salmon with bones, sardines, Chinese cabbage, bok choy, kale, collard greens, turnip greens, mustard greens, broccoli, and calcium-fortified orange juice. Some cereals also have calcium added. You can also take calcium pills. Talk to your doctor or nurse first to see which one is best for you.

Q: Do men get osteoporosis?

A: Yes. In the U.S., over two million men have osteoporosis. Men over age 50 are at greater risk. So, keep an eye on the men in your life, especially if they are over 70 or have broken any bones.

Q: How will pregnancy affect my bones?

A: To grow strong bones, a baby needs a lot of calcium. The baby gets his or her calcium from what you eat (or the supplements you take). In some cases, if a pregnant woman isn't getting enough calcium, she may lose a little from her bones, making them less strong. So, pregnant women should make sure they are getting the recommended amounts of calcium and vitamin D.



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Talk to your doctor about how much you should be getting.

Q: Will I suffer bone loss during breastfeeding?

A: Although bone density can be lost during breastfeeding, this loss tends to be temporary. Several studies have shown that when women have bone loss during breastfeeding, they recover full bone density within six months after weaning.

Q: How is osteoporosis treated?

A: If you have osteoporosis, you may need to make some lifestyle changes and also take medicine to prevent future fractures. A calcium-rich diet, daily exercise, and drug therapy are all treatment options.

These different types of drugs are approved for the treatment or prevention of osteoporosis:

- **Bisphosphonates** (bis-fos-fo-nates) — Bisphosphonates are approved for both prevention and treatment of postmenopausal osteoporosis. Drugs in this group also can treat bone loss, and in some cases, can help build bone mass.
- **SERMs** — A class of drugs called estrogen agonists/antagonists, commonly referred to as selective estrogen receptor modulators (SERMs)

are approved for the prevention and treatment of postmenopausal osteoporosis. They help slow the rate of bone loss.

- **Calcitonin** (kal-si-TOE-nin) — Calcitonin is a naturally occurring hormone that can help slow the rate of bone loss.
- **Menopausal Hormone Therapy (MHT)** — These drugs, which are used to treat menopausal symptoms, also are used to prevent bone loss. But recent studies suggest that this might not be a good option for many women. The Food and Drug Administration (FDA) has made the following recommendations for taking MHT:
 - Take the lowest possible dose of MHT for the shortest time to meet treatment goals.
 - Talk about using other osteoporosis medications instead.
- **Parathyroid Hormone or Teriparatide** (terr-ih-PAR-a-tyd) — Teriparatide is an injectable form of human parathyroid hormone. It helps the body build up new bone faster than the old bone is broken down.

Your doctor can tell you what treatments might work best for you. ■



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For more information

You can find out more about osteoporosis by contacting womenshealth.gov at 1-800-994-9662 or the following organizations:

NIH Osteoporosis and Related Bone Diseases — National Resource Center

Phone: (800) 624-2663

Internet Address: http://www.niams.nih.gov/Health_Info/bone/default.asp

National Institute of Arthritis and Musculoskeletal and Skin Diseases

Phone: (877) 226-4267

Internet Address: <http://www.niams.nih.gov/>

U. S. Food and Drug Administration

Phone: (888) 463-6332

Internet Address: <http://www.fda.gov>

National Institute on Aging

Phone: (800) 222-2225

Internet Address: <http://www.nia.nih.gov/>

National Osteoporosis Foundation

Phone: (877) 868-4520

Internet Address: <http://www.nof.org/>

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National Institutes of Health

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