

## **What is osteoporosis?**

Osteoporosis is a disease that makes your bones weak. People with the disease can break their bones too easily. For instance, people with osteoporosis sometimes break a bone after falling down at home.

Breaking a bone can be serious, especially if the bone is in the hip. People who break a hip sometimes lose the ability to walk on their own. Many of them end up in a nursing home. That's why it is so important to avoid breaking a bone in the first place.

## **How do I know if I have osteoporosis?**

Osteoporosis does not cause symptoms until you break a bone. But your doctor or nurse can have you tested for it. The best test is a bone density test called the "DXA test." It is a special kind of X-ray.

Experts recommend bone density testing for women older than 65. That is because women in this age group have the highest risk of osteoporosis. Still, other people should sometimes be tested, too. Ask your doctor or nurse if you should be tested.

Some people learn that they have osteoporosis because they break a bone during a fall or a mild impact. This is called a "fragility fracture," because people with healthy bones should not break a bone that easily. People who have fragility fractures are at high risk of having other bones break.

## **What can I do to keep my bones as healthy as possible?**

You can:

- Eat foods with a lot of calcium, such as milk, yogurt, and green leafy vegetables ([table 1](#) and [figure 1](#))
- Eat foods with a lot of vitamin D, such as milk that has vitamin D added, and fish from the ocean
- Take calcium and vitamin D pills (if you do not get enough from the food that you eat)
- Be active for at least 30 minutes, most days of the week
- Avoid smoking
- Limit the amount of alcohol you drink to 1 to 2 drinks a day at most

**Do your best to keep from falling, too.** It sounds simple, but you can prevent a lot of fractures by reducing the chances of a fall. To do that:

- Make sure all your rugs have a no-slip backing to keep them in place
- Tuck away any electrical cords, so they are not in your way
- Light all walkways well
- Watch out for slippery floors
- Wear sturdy, comfortable shoes with rubber soles
- Have your eyes checked

- Ask your doctor or nurse to check whether any of your medicines might make you dizzy or increase your risk of falling

### **Can osteoporosis be treated?**

Yes, there are a few medicines to treat osteoporosis. These medicines can reduce the chances that you will break a bone.

Doctors and nurses usually suggest trying medicines called bisphosphonates first. If those medicines do not do enough or if they cause side effects that you cannot stand, there are other medicines to try.

### **How will I know the treatment is working?**

Doctors and nurses often order bone density tests to check if osteoporosis medicines are working. These are the same tests they use to find osteoporosis in the first place. Sometimes a blood or urine test is also needed.

### **What do osteoporosis medicines do?**

If you have osteoporosis or a high risk of breaking a bone, the medicines your doctor prescribes can:

- Reduce bone loss
- Increase bone density or keep it about the same
- Reduce the chances that you will break a bone

For the medicines to work, you must also take calcium and vitamin D supplements. Your doctor or nurse will tell you how much medicine to take and how often to take it.

### **Which medicines might I need?**

There are many different osteoporosis medicines. Your doctor will work with you to choose the best one for you.

### **Bisphosphonates**

Most people being treated for osteoporosis take these medicines first. If they do not work well enough or cause side effects that are too hard to handle, there are other options.

Bisphosphonates come in a pill or a shot. Most people take one pill every week. If your doctor prescribes a bisphosphonate pill, you must take the medicine exactly as directed. If you don't, the medicine can irritate your throat or stomach. For most bisphosphonate pills, you must:

- Take the pill first thing in the morning, before you have anything to eat or drink.
- Drink an 8-ounce glass of water with the pill, but not eat or drink anything else for 30 minutes or 1 hour (depending on which pill you take).
- Avoid lying down for 30 minutes after taking the pill. You must sit or stand during that time.

There is one bisphosphonate pill, delayed release [risedronate](#) (brand name: Atelvia), that is taken in a different way from the others. It is taken after breakfast with 4 ounces of water.

### **"Estrogen-like" medicines**

Medicines called selective estrogen receptor modifiers (or "SERMs") act like the hormone "estrogen." Estrogen helps prevent bone loss. After menopause, a woman's body has less estrogen. (Menopause is the time when a woman stops having periods.) SERMs can act like estrogen to stop bone loss. Some of them also reduce the risk of breast cancer in women at high risk. SERMs are only for women who have gone through menopause.

### **Hormone medicines**

These medicines are sometimes called "hormone replacement therapy" or "menopausal hormone therapy" (MHT). After menopause, a woman's body has lower levels of certain hormones. Some women take MHT to replace these hormones. MHT can also protect against osteoporosis.

Hormones are not used often to treat osteoporosis in women who have gone through menopause. This is because other medicines usually work much better. But MHT can help women who have bothersome symptoms related to menopause (such as hot flashes) and who have osteoporosis but cannot take other osteoporosis medicines.

Women who have not gone through menopause might take hormones in birth control pills or a patch to prevent osteoporosis.

Some men get osteoporosis because their bodies do not make enough of a hormone called "testosterone." If this happens, doctors can give testosterone to treat the osteoporosis.

### **PTH or PTHrP analog**

Both of these are artificial forms of hormones the body makes naturally. PTH stands for "parathyroid hormone," and PTHrP stands for "parathyroid hormone-related protein." Both tell the body to make new bone. They are usually only for people with severe osteoporosis.

**Romsozumab** is a medicine that blocks a protein in the body. This protein usually stops new bone from being formed. Blocking the protein allows the body to make new bone. Romsozumab is usually only for people with severe osteoporosis.

**Denosumab** blocks a different protein in the body. This protein usually causes bone to break down. By blocking the protein, denosumab reduces bone loss and the chance of breaking a bone. If other osteoporosis medicines cause bad side effects or do not help, your doctor might give you denosumab. It might also be a good choice for people with kidney problems. When you stop taking denosumab, your bone density goes down again very quickly. Some people might be at higher risk for breaking a bone when this happens. If you stop denosumab, your doctor will prescribe a different osteoporosis medicine to prevent rapid bone loss.

**Calcitonin** is a hormone the body makes naturally. Doctors can give a man-made form to treat osteoporosis. It is not used as often as other medicines because it does not work as well. But it can help relieve pain from broken bones in the spine. When used for broken bones in the spine, calcitonin should

only be used until the pain is better (and not longer than 6 months). If you are put on calcitonin, after 6 months you should switch to a medicine that is better at preventing fractures.

**How long do I need to take osteoporosis medicines?**

If you are at high risk for breaking a bone, you can safely take osteoporosis medicines for many years. If you are not at high risk for breaking a bone, you might be able to stop your medicine for a year or more. Your doctor will check your bone density to make sure you are not losing too much bone. If you do stop the medicine, you will probably need to start it again later.

**What else should I know about medicines for osteoporosis?**

Some people have heard that taking bisphosphonates for a long time can increase the risk of breaking certain bones. This is true, but it happens very rarely. Your chances of breaking a bone from osteoporosis are much higher than your chances of breaking one because you take bisphosphonates.

If you take osteoporosis medicines, your doctor will do regular exams and tests to see how well the medicines are working. If they are not working well, you might need a different medicine.