

How 'old' are your bones?

34 million Americans are at risk for osteoporosis. Some are senior citizens. Some are still in college. When it comes to gauging bone strength, age is just a number—one among many.

BY LESLIE PEPPER



The osteoporosis problem took a generational leap several years ago when researchers at the University of Arkansas analyzed the bone density of 164 women between the ages of 18 and 30. This is a critical age bracket, when the body builds up a bank of bone mass to defend against thinning and fractures in the decades ahead. But the research team was startled to find that 17 percent of the young women had bone density so low they might never reach a protective peak. Unsettling? Yes, but ultimately enlightening. Now it's clear that while age is the most commonly recognized

risk factor for fragile bones, diet, activity level, medications, family history, and body type matter too. In other words, your bones can seem much “older”—or younger—than you are.

To help size up your skeletal status, *Better Homes and Gardens*® worked with leading bone specialists to develop a quiz that examines these factors. No matter what your score, it's never too late to build stronger bones. Just note that this quiz is not a diagnostic tool; rather, it's meant to be a conversation-starter with your doctor. Begin by answering the questions on *pages 210–211*, then add up your points and read on for targeted advice.

QUIZ

Do your bones need a boost?

1. Your age is:
 - a) 49 or younger **+1**
 - b) 50–64 **+5**
 - c) 65 or older **+8**
 2. Have you reached menopause (surgically or naturally)?
 - a) Not yet **+1**
 - b) Yes, at age 51 or older **+1**
 - b) Yes, between the ages of 40 and 50 **+4**
 - c) Yes, before age 40 **+8**
 3. Have you broken a bone at age 45 or older through a fall from a standing height—for example, by slipping on a wet sidewalk? (Do not count fractures of toes, fingers, or nose.)
 - a) No **+1**
 - b) Yes **+8**
 4. Are you Caucasian, Asian, or light-skinned Hispanic?
 - a) Yes **+8**
 - b) No **+1**
 5. Has your mother, father, a sibling, or a grandparent been diagnosed with osteoporosis or fractured a bone in his or her spine, hip, or wrist?
 - a) No **+1**
 - b) Yes **+8**
 6. What is your body mass index? (Go to cdc.gov/bmi for a calculator.)
 - a) 26 or more **+1**
 - b) 19–25 **+3**
 - c) 19 or less **+8**
 7. Your exercise regimen entails:
 - a) At least 30 minutes of weight-bearing exercise such as walking, dancing, or weight training on most days **+1**
 - b) Nothing formal, but you're on your feet for much of the day **+2**
 - c) Occasional workouts interspersed with long periods of inactivity **+5**
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Weak bones produce no early warning signs. For many Americans diagnosed with osteoporosis, the first “symptom” is a fracture, in some cases caused by an ordinary sneeze.

8. You eat dairy products and other calcium-rich foods:

- a) At least three times a day **+1**
- b) Once or twice a day **+3**
- c) Rarely **+5**

9. Do you smoke cigarettes?

- a) No; never did **+1**
- b) Not any more; you quit **+3**
- c) Yes, in social settings only **+3**
- d) Yes, every day **+5**

10. Your alcohol intake averages:

- a) 2 drinks a day or less **+1**
- b) 3 drinks per day or more **+5**

11. Have you taken corticosteroids for asthma, eczema, or inflammatory autoimmune diseases such as rheumatoid arthritis?

- a) No **+1**
- b) Yes, for a period of 3 months or less **+1**
- c) Yes, for a fixed period lasting more than 3 months **+5**
- d) Yes, on an ongoing basis **+8**

12. Have you used Depo-Provera for birth control?

- a) No, or for less than 2 years **+1**
- b) Yes, for 2–5 years **+3**
- c) Yes, for more than 5 years **+6**

SCORING

What your answers reveal— and what to do next

12–19 points

Your bones are **YOUNG**

Great news: Most major risk factors for osteoporosis, such as family history and being postmenopausal, aren't affecting you right now. But it pays to be proactive. The younger you are, the more easily you can bank bone mass. This will help you as age and waning estrogen speed the body's rate of bone breakdown, says Judi Chervenak, M.D., a reproductive endocrinologist and bone density expert at Montefiore Medical Center in New York City. One of the easiest ways to do this is to up your intake of the bone-strengthening duo of calcium and vitamin D. See "5 Must-Read Facts About Calcium" on *page 215* for information about food sources and supplements.

At this point, it might also help to reconsider your prescriptions. The contraceptive injections sold under the name Depo-Provera can cause reversible—but significant—loss of bone mineral density. The same goes for corticosteroids, commonly prescribed for inflammatory conditions such as irritable bowel syndrome. Your doctor can advise you on ways to avoid the bone-robbing effects.

And note that while research suggests that being overweight offers some protection against bone thinning (because fatty tissue stores more estrogen), it isn't good for overall health, says Andrea Sikon, M.D., an internist at the Specialized Center for Women's Health at Cleveland Clinic. To bring down BMI *and* strengthen bones, try to get at least 30 minutes of weight-bearing exercise—any activity you do on your feet that forces your bones and muscles to work against gravity—at least five days a week. Ideal activities include walking, dancing, even gardening. (Nonweight-bearing activities such as swimming, although great for cardiovascular health, don't have much effect on bone density.)

20–44 points

Your bones are **MATURE**

You're probably facing some osteoporosis risk factors that are beyond your control—there's not much you can do about menopause or an ethnic predisposition. So in your case, the path to strong bones lies in a healthy lifestyle, says Nelson B. Watts, M.D., director of the University of Cincinnati Bone Health and Osteoporosis Center. Following the diet and exercise advice outlined in the section for women with young bone scores, at *left*, can go a long way to offset skeletal disadvantages. Bear in mind, too, that alcohol can disrupt the body's calcium balance, so it's best to have no more than two drinks a day. And if you need new incentive to kick a cigarette habit, consider this: Smoking is toxic to the body's bone-producing osteoblast cells. Go to smokefree.gov to connect with a counselor who can help you quit free of charge.

If you're postmenopausal, ask your doctor whether you should have a bone density test. This painless 10-minute procedure, known as a DXA scan, uses X-rays to measure the concentration of calcium and other minerals in a given segment of bone. Although federal guidelines do not call for routine screening before age 65, many physicians recommend a baseline DXA scan much earlier. "Women can lose up to 20 percent of their bone mass in the five to seven years after menopause," Dr. Sikon explains. "If your bone density is borderline at the onset, you may need to take more aggressive steps to thwart further loss." See the section on *page 213* for more on that.

45-82 points

Your bones are AT RISK

Due to factors such as age, a history of smoking or inactivity, or a hereditary predisposition, your bone density may have already taken a hit. So step one is to see your doctor for a DXA scan. If the result—expressed in a value called a T-score—is between -1.1 and -2.5, you likely have a precursor of osteoporosis known as osteopenia.

Just to be clear: Unlike osteoporosis, osteopenia is not a disease and often is reversible with the lifestyle changes outlined in the two sections on *page 212*. But if you've experienced serious bone loss despite following these guidelines, you might be a candidate for medication. (Ditto if you've broken a major bone in midlife, regardless of your DXA

results, Dr. Sikon says.) The most common treatment is a class of drugs called biphosphonates, which includes Boniva and Fosamax, among others. These drugs slow bone breakdown, giving the body a chance to correct its deficit. One interesting quirk is that biphosphonates accumulate in bones, so many women can use them for just a few years and then take a 12- to 24-month break.

In addition to performing weight-bearing exercises, you also could benefit from strengthening your core muscles through activities such as yoga and tai chi. This improves balance, reducing the risk of dangerous falls. Just be sure to get your doctor's OK first—some exercises might need to be modified to protect your bones from injury.



5 must-read facts about calcium

While this mineral isn't your only ticket to strong bones, it's a critical building block. Women under 50 need 1,000 mg a day; older women need 1,200 mg a day. Our experts say that food sources of calcium have an edge because they're rich in bonus nutrients (such as protein), but supplements are a suitable backup. The following know-how can help you hit your mark.

1 Low-fat dairy delivers more. Calcium isn't contained in the fat portion of milk, so when fat is skimmed away, the calcium level per serving rises. For example, 8 ounces of whole-milk yogurt has about 274 mg of calcium while an equal amount of low-fat yogurt delivers about 400 mg.

2 Milk isn't your only option. If you can't tolerate dairy or dislike the taste, other good sources of calcium are dry roasted almonds (about 95 mg in $\frac{1}{4}$ cup), green leafy vegetables such as spinach (122 mg in $\frac{1}{2}$ cup cooked), and canned salmon (190 mg in 3 ounces) and sardines (370 mg in 8 medium fish). Calcium-fortified foods such as cereal also can do the trick. Check nutrition labels for the amount of calcium per serving.

3 Absorption depends on D. Vitamin D regulates calcium uptake in the small intestine and helps maintain the blood levels needed to build bones. Skin makes vitamin D in response to sunlight (about 30 minutes of unprotected exposure a week can often deliver enough). If you prefer to avoid UV rays, aim to get 600–1,000 IU of vitamin D per day through foods such as sockeye salmon and fortified milk, or ask your doctor about taking a supplement.

4 Big doses are best divided. The body can't handle too much calcium at once—beyond 500 mg or so, the percentage absorbed declines with increasing doses. If you decide to take a supplement, portion out your daily quota in two or three mini doses.

5 Dose and pill size aren't synonymous. Calcium supplements typically are sold in compound forms such as calcium carbonate and calcium citrate (to stabilize the mineral). So check the supplement facts to make sure you take the right amount. For example, a 1,250 mg capsule of calcium carbonate contains 500 mg of calcium and 750 mg of carbonate. For 1,000 mg of calcium, you'd need to take one capsule twice a day. ■

