

Calcium: Gotta Have It for Healthy Bones

Milk and other calcium-rich foods are an important part of a bone-healthy lifestyle that can not only reduce the risk of fractures as you get older, but may also protect against certain cancers.

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Got milk? That's not just an advertising slogan. It's a legitimate question. Milk and other calcium-rich foods are an important part of a bone-healthy lifestyle that can not only reduce the risk of fractures as you get older, but may also protect against certain cancers.

Many people have also taken to popping calcium supplements as a preventive measure against disease. But can they really help?

A recent report published in the *Harvard Health Letter* shows no connection between high calcium intake and lower hip fracture risk. But it may not be for the reason you think.

The report concludes that 600-1,000 milligrams of calcium a day is a "reasonable goal," both for keeping bones strong and for lowering the risk of colon cancer, but suggests that amounts above that level might not do much good. The report also acknowledges that the study participants on whom the findings were based may not have shown a significant benefit from calcium supplements because they were already getting more than 1,000 milligrams of calcium a day through their diet.

"Plenty of people already get enough calcium from their daily food intake," says Nelson Watts, MD, professor of medicine and director of the Bone Health and Osteoporosis Center at the University of Cincinnati. Too many people are popping those convenient -- and tasty -- flavored calcium "soft chews" at each meal, Watts suggests. At 500 milligrams a chew, that's 1,500 milligrams a day.

"Enough calcium is a good thing," says Watts. Too much, on the other hand, can lead to problems such as kidney stones. "There's really no benefit to going over a total -- food and supplements combined -- of 1,500 milligrams of calcium a day," Watts advises.

According to Watts, there is no research that shows that calcium supplements are more or less effective than calcium-rich foods in maintaining bone health. "But," he says, "they are what their name suggests: supplements." Calcium-rich foods provide other nutrients as well, Watts says. But if you can't answer "yes" to the question, "Got milk?" by all means, take a supplement.

For women, adult bone mass peaks at about age 30. With aging, bone loss gradually happens and then becomes increased after menopause. So it is important for young women to build good bone mass and for older women to do what they can to maintain it.

How to Get Enough Calcium

While medicines are available to help treat the bone-weakening disease osteoporosis, making a commitment to a "bone-healthy lifestyle" might mean preventing the condition in the first place. You can help increase bone strength by making sure that you have enough calcium, vitamin D, and exercise in your routine, says Watts.

Adults under the age of 50 need 1,000 milligrams of calcium a day, while those over the age of 50 need 1,200 milligrams a day, advises Watts, who perhaps surprisingly adds that before you start "boning up" on your calcium supplements, look at your diet. If you already eat a lot of calcium-rich foods such as skim milk, yogurt, low-fat cheese, almonds, sardines, and calcium-fortified orange juice, you may be getting what you need in your diet.

In addition to dairy products, **Georgianna Donadio, PhD, MSc**, program director for the **National Institute of Whole Health in Boston**, also says you can build up bone reserve by adding other calcium-rich foods such as leafy green vegetables (including kale, escarole, collard greens, and bok choy; nuts (especially almonds and pistachios); legumes; and seeds.

Limit sodas, Donadio adds, because too much phosphorus can also deplete calcium levels. Donadio also advises against:

- Antacids (you need stomach acid to aid in calcium absorption)
- Caffeine, which reduces calcium absorption
- Excessive alcohol
- Excess sodium
- Excessive red meat

If you take a calcium supplement, take no more than 500 or 600 milligrams at a time. It will be absorbed better that way.

Importance of Vitamin D

While there's a possibility you may be taking in too much calcium, chances are you're not taking in enough vitamin D, Watts says. "Vitamin D is underutilized," he says, observing that the vitamin is not found naturally in most of the foods we eat, and the amount added to milk or multivitamins is not enough to maximize calcium absorption. Most of the vitamin D we get is produced by the body via exposure to sunlight.

"More D is better," says Watts, who believes that the recommended daily allowance is too low and advises patients to have their blood levels analyzed, and if needed, take additional vitamin D-3 as a supplement. Vitamin D-3, also called cholecalciferol, is the form of vitamin D that best supports bone health. (According to the Institute of Medicine, the tolerable upper intake for people 14 years and older is 2,000 IU, but many experts have challenged that limit.)

As a bone-building ingredient, don't overlook protein in your diet either, Watts advises. While very high levels of protein may cause "calcium-wasting," Watts says that researchers have found that hip fracture patients who were given a mild protein supplement were released from the hospital sooner than those who weren't.

"It's like a symphony orchestra," says Robert P. Heaney, MD, John A. Creighton University Professor and professor of medicine at Creighton University. "If you don't take in enough protein [Heaney recommends 62 grams a day], then calcium alone, or even with vitamin D, won't do the trick," he says. "It's the sum of the parts that's important, not the individual elements alone."

Exercise and Sunshine Part of the Program

Those elements include not only diet, but exercise and sunlight as well, Donadio says.

Those who exercise on a "regular and ongoing" basis have a significantly lower risk of osteoporosis, says Donadio, who recommends walking for at least 30 minutes a day, and preferably outdoors to get the benefits of sunlight, which provides natural vitamin D. Strength training, movement techniques such as tai chi (which improves balance and coordination, thereby reducing the risk of falls), even sexual activity can improve your bone health by increasing your estrogen levels.

The less stress you feel, the better, Donadio says, since stress hormones, especially cortisol, deplete calcium reserves.