

Bone Up on Your Health

Milk isn't just for kids. Nutrition experts say calcium from dairy foods is important for bone health throughout our lives.

But most of us don't get enough. According to United States Department of Agriculture surveys, about three-fourths of adult women and half of adult men don't get the recommended amount of dietary calcium.

The Calcium Inside You

About 99 percent of your body's calcium is in your skeleton. The other 1 percent helps regulate your heartbeat, muscle contractions, nerve transmissions, blood clotting, and other functions vital to health.

When your blood or tissues need more calcium, your body has two ways to get it—either absorb it from your diet or steal it from your bones. If you don't eat or drink enough calcium, your body makes a “withdrawal” from your bone bank. Over time, frequent withdrawals of calcium can weaken bones and lead to osteoporosis. This sneaky disease threatens 34 million Americans and causes 1.5 million fractures per year, according to the National Institutes of Health (NIH.)

What About Vitamin D?

Vitamin D is critical to bone health and osteoporosis prevention because it helps the body absorb calcium. We get vitamin D two ways: from sunlight and food. Our skin can synthesize vitamin D when exposed to adequate sunlight. For most people, experts suggest about 15 minutes of sunlight several days a week, with hands and face exposed.

Our requirements for vitamin D increase as we age because our bodies become less efficient at making it.

Practical food sources include milk, yogurt, and some

breakfast cereals that are fortified with vitamin D. It also occurs naturally in cod liver oil, tuna, salmon, sardines, and mackerel, but most people don't eat these foods every day. Dairy products made from milk, like cheese and ice cream, usually contain very little vitamin D. For many people, drinking milk with meals provides enough vitamin D for the day.

Are you getting enough? Check this chart to see how much of the bone-building nutrients you need.

Source: Dietary Reference Intakes for Calcium, Phosphorus, Magnesium, Vitamin D, and Fluoride. Institute of Medicine, Washington, D.C.: National Academies Press, 1997.

Tips for Nourishing Your Bones

1. Shoot for three. Aim for a serving of dairy at each meal. One serving is 8 ounces of yogurt or milk or 1 1/2 ounces of cheese. To decrease fat intake, use low fat or skim milk. And remember to enjoy a variety of dairy foods. Getting your calcium isn't a good excuse to indulge in high fat cheese at every meal!

2. Don't skip breakfast. The morning meal is a great opportunity to start the day by feeding your bones. Your digestive tract can absorb only a limited amount of calcium at one time, so taking in smaller doses spread over three meals allows greater absorption.

3. Go "calcium-fortified." Manufacturers add calcium to a variety of foods like oatmeal, bread, cereal bars, cold cereals, and even dairy products. To see how much calcium is in a serving, check the nutrition label. Calcium is listed as "%DV" or percent Daily Value. Simply add a zero to the percent to get the number of milligrams of calcium. So 30 percent DV = 300 milligrams of calcium. When you start checking labels, you will notice some dairy products have extra calcium added, bringing their total to as high as 400-500 milligrams per

serving.

With fortified beverages like soy milk and orange juice, the calcium may settle to the bottom, so be sure to shake the cartons before pouring. Calcium in the bottom of your glass won't do your bones any good.

WARNING: Your calcium intake should not exceed 2,500 milligrams per day.

Source: Calcium & Vitamin D: Essential Nutrients for Bone Health. Nutrition Fact Sheet. American Dietetic Association, 2006.

Can't Tolerate Dairy?

People with lactose intolerance lack the enzyme for digesting milk sugar, or lactose. If you are lactose-intolerant, try milk with added lactase enzyme or the lactase pills you swallow with dairy foods. Since there are varying degrees of lactase deficiency, some people can tolerate yogurt and cheese or small amounts of milk with meals.

If you have a true allergy to casein, the protein in milk, dairy products are not an option for you. Try to eat non-dairy food sources of calcium and discuss calcium supplementation with your doctor.

What About Supplements?

Calcium carbonate is probably the most common form available. It requires extra stomach acid for absorption, so it should be taken with meals. In general, calcium carbonate supplements provide more elemental calcium per pill than calcium citrate. Calcium citrate doesn't require extra stomach acid for absorption, so it can be taken with or without food.

Steer clear of bone meal, dolomite, or oyster shell calcium supplements because they may contain lead or heavy metals.

Vitamin D is measured in international units, or IUs. The most potent form is vitamin D3, not D2. Many supplements pair up vitamin D and calcium in one tablet. Look for the United States Pharmacopeia (USP) symbol on the label, which means the supplement has met the USP standards.

Call Your Doctor

Always check with your doctor before starting on any nutritional supplements. If you take prescription or over-the-counter medications, ask the doctor or pharmacist about possible interactions between your meds and the supplements. For instance, calcium can decrease the effectiveness of some thyroid medications if taken too close together.

In addition, a recent study suggested a link between calcium supplements and increased risk of cardiovascular problems in postmenopausal women. It's only one study and much more research is needed before recommendations on calcium supplementation change. But it's a compelling reason to consider getting your calcium from foods.

The Bottom Line

You can't change the genetics of whether you're predisposed to osteoporosis or not. But you can control your diet and exercise. Weight-bearing exercise, like walking, helps maximize bone density and strength. Your doctor can recommend a weight-bearing exercise that is right for you.

Getting calcium from dairy foods is probably the best bet for most people. First, research suggests that calcium from food is better absorbed. Second, milk provides other key nutrients your bones need—vitamin D, magnesium, phosphorus, potassium—all in one package. Third, milk is a natural food made by God ... and cows, of course.

What is the bottom line for building bones? Calcium, vitamin D, and weight-bearing exercise—every day.

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