



Bone Basics

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National Osteoporosis Foundation

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HOW THE FOODS YOU EAT CAN AFFECT YOUR BONES

Certain foods can affect your bones. Learning about these foods can help you make healthier food choices every day. Calcium and vitamin D are important for keeping your bones healthy. A diet that is rich in fruits and vegetables can also help you get the many vitamins, minerals and nutrients that are good for your bones and your overall health.

FOOD AND BONE HEALTH

Dairy Products. Dairy products are high in calcium. Low-fat and non-fat milk, yogurt and cheese are good choices. If you like these foods, it's an easy way to get calcium. It's important to try to get enough calcium from the foods you eat. When your diet does not have enough calcium for your body's needs, calcium is taken from your bones.

Some people have trouble drinking milk and eating dairy products because of lactose intolerance. Many people can eat dairy products if they take lactase enzyme pills. Lactose-free dairy products are also good choices.

Vitamin D is also important because it helps your body use calcium. While dairy products naturally contain calcium, the milk you buy in the grocery store usually has vitamin D added (fortified). Vitamin D is usually not added to other milk-based products, like cheese, yogurt and butter.

Fish. Canned sardines and salmon (with bones) are good ways to get calcium. You can also get calcium from eating canned shrimp. Fatty fish such as salmon, mackerel, tuna and sardines are other ways to get vitamin D.

Fortified Foods. Some foods are fortified with calcium and/or vitamin D. This means that calcium and vitamin D are not found in these foods naturally but are added.

Some juices, breakfast foods, soy milk, cereals, snacks, breads and bottled water have calcium and/or vitamin D that has been added. These foods can help you get more calcium and vitamin D in your diet. Check the food labels for these and other foods to see if calcium and vitamin D have been added.

Fruits and Vegetables. Many green vegetables contain calcium. Examples include bok choy or Chinese cabbage, broccoli, kale, soybeans and turnip greens. Oranges and dried figs also have calcium. Spinach, rhubarb and beet greens, however, are not good sources of calcium. These foods are high in oxalate which prevents the calcium in these foods from being absorbed.

In addition to fruits and vegetables with calcium, studies suggest that people who eat more fruits and vegetables in general have better bones. One possible reason for the link between fruits and vegetables and healthy bones is that these foods have many vitamins and minerals. Magnesium, vitamin K, vitamin B6, vitamin B12 and zinc are some of the many minerals and vitamins that are important for bone health.

If you eat a well-balanced diet, you should be getting enough of these nutrients. Most experts recommend multivitamins or supplements for people who do not get what they need from foods. You cannot get all of the vitamins and minerals your body needs by taking vitamins, which is why it's important to eat fruits and vegetables.

Legumes (beans). Legumes, such as pinto beans, navy beans and peas, are high in phytates. Phytates interfere with your body's ability to absorb the calcium in these foods. You can reduce the phytate level in legumes by soaking them in water for several hours, discarding the water and then cooking them in fresh water.

Meat and Other High Protein Foods. Eating enough protein is important for your health. But a very high protein diet, particularly animal protein, causes a loss of calcium through the kidneys. You can make up for this calcium loss by getting enough calcium for your body's needs.

Salty Foods. Eating foods that have a lot of salt (sodium) causes a loss of calcium through the kidneys. Too much sodium can lead to bone loss. Many processed foods and canned foods are high in sodium. You can check the food label to see if a food is high in sodium. Try cooking without adding extra salt, and limit the amount of salty snacks and processed foods that you eat. To learn if a food is high in sodium, look at the Nutrition Facts label. If it lists 20% or more for the % Daily Value, it is high in sodium.

Wheat Bran. Wheat bran contains high levels of phytate which can prevent your body from absorbing calcium. 100% wheat bran is the only food that appears to reduce the absorption of calcium in other foods eaten at the same time. For example, when you have milk and wheat bran cereal together, your body can absorb some, but not all, of the calcium from the milk.

We do not know exactly how much calcium is lost from eating 100% wheat bran and calcium at the same time. Wheat bran is a fiber-rich food that can be an important part of a healthy diet. If you are taking calcium supplements, you may want to take them two or more hours before or after eating 100% wheat bran.

Other Foods That May Be Good for Your Bones. Many other foods are being studied to see if they improve bone health and can help prevent osteoporosis. Some of these foods include dried plums, red grapefruit, tea and soy.

To find research studies on nutrition and bone health, you can visit Pubmed, an online service of the US National Library of Medicine at www.pubmed.gov.

DRINKS AND BONE HEALTH

Alcohol. Drinking heavily can reduce the amount of bone you have. Many people who drink too much do not get enough calcium. Drinking may also lower your body's calcium supply. Drinking too much alcohol is bad for your overall health and can make you more likely to fall and break bones. Alcohol in smaller amounts, however, does not harm bone health. This usually means fewer than three drinks a day.

Coffee, Tea and Soft Drinks (Sodas). Some people are concerned that the caffeine in coffee, tea and soft drinks, especially colas, may be harmful to bones. Others believe that the phosphorous and carbonation in soft drinks may also harm bones.

Caffeine. Caffeine is found naturally in coffee and tea. It is often added to colas and other soft drinks. Caffeine appears to decrease calcium absorption by a small amount.

One study suggests that drinking 330 mg of caffeine, or about four cups of coffee, every day increases the risk of broken bones. If you enjoy drinks that have caffeine, you can make up for any calcium loss by getting enough calcium to meet your body's needs.

Phosphorous. Like calcium, phosphorous is a part of the bones. Because this mineral is found naturally in many foods, most people get enough of it. It is often added to colas, other soft drinks and some processed foods as "phosphate" or "phosphoric acid."

Some experts say that Americans get too much phosphorous, while others believe that it is not a problem as long as people get enough calcium. The harm to bone may actually be caused when people choose soft drinks over milk and calcium-fortified juices.

Carbonation. There is no connection between the carbonation in soft drinks and bone loss. In fact, certain carbonated mineral waters have been shown to improve bone health.