The Scoop: Nutrients for Bone Health

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What's the Scoop? Questions and Answers About Dietary Supplements

Which nutrients can help me build and maintain strong bones?

Many nutrients work together in our bodies to build and maintain strong bones. Calcium, vitamin D, and magnesium are among the most important. You can get these nutrients by consuming a variety of nutritious foods and beverages.

If you do not get enough nutrients from your diet, your health care provider might recommend a dietary supplement. Some supplements contain individual nutrients, while others combine

two or more nutrients such as calcium and vitamin D. The Supplement Facts label shows the nutrients and amounts contained in each serving.

Calcium is the most abundant mineral in your body and almost all of it is stored in your bones. You need calcium for your bones to stay strong. The recommended amount of calcium for adults is 1,000 to 1,200 milligrams (mg) per day. You can get calcium from foods and beverages such as milk, yogurt, and cheese. It is also added to some plant-based milk alternatives, such as soy and almond milk. Check the label to see if calcium has been added to a product. Canned sardines and salmon with bones that you eat also contain calcium, as do some vegetables, such as kale and bok choy.

Calcium supplements often provide 500 to 600 mg per serving. To optimize absorption, it is generally best to take these supplements with food.

You need vitamin D for bone health. It helps your body absorb calcium. Adults need 15 to 20 micrograms (mcg) (600–800 IU) of vitamin D per day. Vitamin D is naturally present in some fish, such as trout, salmon, tuna, mackerel, and cod liver oils. Not many other foods naturally contain vitamin D, but some foods are fortified with it. In the United States, milk is fortified with vitamin D but most cheeses and ice creams are not fortified. Many breakfast cereals and some brands of orange juice, yogurt, and margarine are also fortified with vitamin D.

Vitamin D supplements often provide 15 to 50 mcg per serving as either vitamin D2 or D3. Both forms work in the body, but vitamin D3 might be slightly more effective than D2. Vitamin D supplements are absorbed best when taken with food. Your body also makes vitamin D when you are out in the sun.

<u>Magnesium</u> helps your bones stay strong and healthy. Adults need 310 to 420 mg of
magnesium per day. Magnesium is found in legumes (beans, lentils, and peas), nuts
(including peanut butter and almonds), seeds, whole grains, and green leafy vegetables
such as spinach.

Magnesium supplements often provide 120 to 250 mg per serving, and most products suggest taking the supplement with food.

Other nutrients that are important for keeping bones healthy include boron, copper, manganese, phosphorus, potassium, and vitamin K.

For more information about these and other nutrients, the amounts you need, which foods contain them, and their health effects, see our <u>vitamin and mineral fact sheets</u>. In addition, please talk with your health care provider for specific advice about keeping your bones strong. Your health care provider may also suggest getting a bone density test.

Since the recommended amount of magnesium is up to 420 mg per day, how can the upper limit be only 350 mg per day?

The upper limit is the amount of a nutrient that most people should not exceed on a daily basis. For magnesium, the upper limit is 350 mg per day (for adults) and it refers only to supplemental magnesium—that is, magnesium from dietary supplements and medications that contain magnesium such as some laxatives and antacids. There is no upper limit for magnesium found naturally in foods and beverages.

For example, if a 55-year-old man gets 300 mg of magnesium a day from foods such as beans, nuts, and vegetables and 120 mg a day from a magnesium supplement, he gets a total of 420 mg of magnesium. This meets his daily recommended amount of 420 mg. However, because only 120 mg is from a dietary supplement, he does not go over the upper limit of 350 mg per day.

Getting too much magnesium from supplements or medications can cause diarrhea, nausea, and stomach cramps. Extremely high amounts can cause more serious problems, including an irregular heartbeat and even a heart attack.

For more information about magnesium, including the recommended amounts, food sources, health effects, and upper limits, see our magnesium fact sheet.



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Consulte <u>nuestra información basada en la ciencia</u> para ayudarle a tomar las mejores decisiones para su salud con respecto al uso de suplementos dietéticos.

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