



Advice on calcium varies with global dietary customs

People generally know that calcium in the diet is essential for building and maintaining healthy bones. However, scientific recommendations for the amount of calcium individuals should consume vary from one country to another. For people over 50, Australia recommends 1,300 milligrams of dietary calcium per day; the United States recommends 1,200 mg; Scandinavian countries recommend 800 mg; and the U.K. recommends 700 mg.

Question: Why do calcium recommendations vary?

Answer: Although scientific panels from each country read the same scientific research, many assumptions are incorporated into their recommendations. Although the common goal is to recommend enough calcium from foods to promote bone health, the recommendations target specific populations with eating styles that can be very different.

The amount of calcium absorbed from foods varies greatly, with as little as 5 percent absorbed from spinach, and 30 percent to 35 percent of calcium absorbed from milk products. Calcium recommendations also need to consider the amounts of other key bone nutrients in the diet, like vitamins D

and K, magnesium and protein, because the adequacy of these nutrients can affect the amount of calcium a person needs for bone health.

Researchers are still learning about calcium needs and factors affecting these requirements. A recent and somewhat controversial study on more than 5,000 women in Sweden found that consuming less than 750 mg of calcium per day was associated with an increased risk of bone fractures. However, consuming calcium above 750 to 800 mg per day did not provide greater protection against bone fractures.

Q: Is it possible to get too much calcium?

A: Generally, this is not a concern when individuals consume only unfortified foods. However, when a person consumes calcium supplements or excessive amounts of calcium-fortified foods, the risk of consuming too much calcium is increased. One recent study, based on data from more than 36,000 post-menopausal women, found that women who took calcium supplements had about a 20 percent greater risk of having a heart attack. Expect to see more research to confirm or refute this observation.

Another study of the same group of women found that over a period of seven years, those taking a 500 mg calcium supplement twice daily with meals were more likely to develop kidney stones. This was a surprising finding because calcium consumed from foods is known to help reduce kidney stones. At this time it is not clear why calcium supplements might affect us differently from calcium obtained from foods.

Calcium also can interfere with the absorption of other minerals in the diet. For example, when high-calcium foods or calcium supplements are consumed at the same time as a high-iron food or iron supplement, the iron will be poorly absorbed. Calcium also inhibits the absorption of zinc when the two nutrients are consumed at the same time. Consequently, some problems associated with consuming high levels of calcium could be due to other mineral deficiencies caused by calcium competition.

Clearly, it is important to consume enough calcium to maintain healthy bones over a lifetime. It seems best to meet most of that need with food, but moderate use of calcium supplements might continue to play an important role in the promotion of bone health.

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