

Health Q and A

Bioavailability of calcium

Q. I am a woman in her mid 50s whose mother suffers from osteoporosis. I understand that heredity is a risk factor, and so I want to be very careful to do what I can to keep my bones in good condition. I know that I need 800 IUs of vitamin D and 1500 mgs of calcium per day. But I have read that some sources of calcium are better than others because of something called

“bioavailability.” Can you explain this for me?

A. Bioavailability refers to whether the calcium that is found in the food is available to the body. A major factor is how well it can be absorbed. For example, there are some vegetables that contain calcium, but they also contain oxalates that bind with the calcium and therefore make it unavailable for absorption. Such vegetables are spinach, rhubarb and beet greens. Although these are nutritious foods, they cannot

be considered good sources of calcium. Almonds are often cited as a good source of calcium, but the skins contain oxalates, so the calcium in the whole nut is not very available to the body.

Three factors are important in determining how much calcium we obtain from foods. We need to have enough vitamin D to promote absorption. The second factor is how much calcium is in the serving of food, and the third, whether the calcium is bioavailable. Dairy products such as milk, yogurt and cheese are less well absorbed (30%) than calcium-rich vegetables (50%), but have a much higher calcium content per serving. A cup of milk has about
(Continued on page 7)