



Healthy bones need protein

One of the most confusing issues concerning bone health and osteoporosis is the effect of dietary protein.

A high-protein diet can increase calcium loss in the urine. This has led some to speculate that osteoporosis is caused by a high-protein diet, or to claim that if the diet is low in protein, a person needn't worry about calcium. In addition, there are claims that milk is a poor source of calcium because it has too much protein.

Research does not support any of these claims. In fact, a growing body of research indicates quite the opposite.

Question: How does protein really affect bone density?

Answer: One of the best studies evaluating the effect of protein on bone density was published in the April issue of the *American Journal of Clinical Nutrition*. It showed that total body bone density actually increased in individuals with higher protein intake. Individuals consuming the least protein averaged a slight decrease in bone density, despite taking supplemental calcium.

Q: Why was this considered a good study?

A: For a number of reasons, including researcher experience, number of participants, and length of study. Longtime bone researcher Dr. Bess Dawson-Hughes at the Calcium and Bone Metabolism Laboratory of Tufts University headed the four-year study, which involved 342 healthy men and women over age of 65.

Half of the participants took 500 milligrams of calcium daily while the other half took a placebo. The supplement group averaged a total dietary intake of about 150 mg more calcium per day than the 1,200 mg recommendation for this age group. The placebo group averaged 330 mg less than the recommended amount

Bone-mineral density typically declines in people over age 65, and that is what happened in the placebo group and in the supplement group that consumed the least protein. Amazingly, increased bone density was found in those with the highest protein intake and the 500 mg calcium supplement.

Q: Is animal protein in meat and milk bad for bone density?

A: Protein from animal foods does not harm bone density un-

less the overall diet is low in calcium.

When the recommended intake of calcium is met, protein, including animal protein, actually improves bone density. Milk is especially good since it is a high-quality protein source that also provides plenty of calcium.

Q: Can you get too much calcium?

A: Yes. Although most of us don't get enough, a recent study in Finland found that about 10 percent of the men consumed around 2,500 mg per day. This is a recently established upper limit, a level of intake that could increase the risk of kidney stones. With so many foods fortified with high levels of calcium, it is important to make sure you are not getting too much.

Q: What about protein?

A: Although the Tufts study indicates benefits from increasing protein in people over 65, it is possible to overdo it. Too much protein can increase water needs and stress aging kidneys. Reasonable amounts of calcium and protein help maintain the skeleton. An adequate intake of both nutrients is best for bone health throughout life.

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