

Necessary Nutrients for Healthy Bones

Dietary Strategies to Maintain a Strong Frame

Several recent studies highlight the risks of osteoporosis drugs like Fosamax and Boniva, with research linking their class of drugs, called bisphosphonates, to side effects such as bone, joint, and muscle pain; destruction of bone in the jaw; spontaneous fracture; esophageal reflux; and even cancer. The FDA is also investigating a link to irregular heartbeat. Although most of these side effects are rare, the risks may outweigh the advantages of using the drugs for prevention in most people, says Victoria Maizes, MD, executive director of the Arizona Center for Integrative Medicine. People who have had an osteoporotic fracture, have taken corticosteroids, or who are frail can benefit from bisphosphonates, she says, “but I think a lot fewer people should take them than currently are.”

Thankfully, there are safer ways to protect your frame, such as adding the following bone builders to your diet:

Fortified foods Orange juice, whole soy foods, and breakfast cereals that contain added calcium and vitamin D can help you reach the recommended daily amounts of these nutrients. Most people need 1,000 to 1,200 mg of bone-strengthening calcium per day, but if you have low bone mass (osteopenia), Dr. Maizes suggests aiming for a total of 1,500 mg from diet and supplements combined. Since high doses of calcium may increase prostate-cancer risk, men should not take supplemental calcium.

Fermented foods Fermented dairy, such as cheese and yogurt, and fermented soy, such as miso and natto, provide vitamin K2, which has been shown to increase bone density and reduce fracture risk. People with osteoporosis or osteopenia should eat foods rich in K1 and K2 and supplement with 50 to 100 mcg of K2

daily, says Tieraona Low Dog, MD, director of the Fellowship at the Arizona Center for Integrative Medicine. People with normal bone density “probably don’t need more than 25 mcg” of K2 in addition to diet, she says. If you take anticoagulant drugs, check with your doctor before increasing vitamin K intake.

Green vegetables Dark leafy greens and cruciferous vegetables offer plenty of bone benefits. For example, 1 cup of cooked spinach serves up a stellar 245 mg of calcium, and 1 cup of cooked broccoli provides 62 mg. Onions and parsley also contain vitamin K1, which is partly converted into beneficial K2 in the gastrointestinal tract.

Eggs and fish Few foods contain vitamin D—important for optimizing calcium absorption—but salmon, mackerel, tuna, sardines, and egg yolks are good sources. In addition to eating these foods, Dr. Weil suggests that everyone take a daily supplement of 1,000 IU of D3 (cholecalciferol). Canned sardines and salmon, with their tiny edible bones, are also a good source of calcium. And egg yolks are one of the few sources of vitamin K2, besides fermented foods.

Other helpful foods Good nondairy sources of calcium include dried figs, white beans, edamame, and almonds. Studies are mixed, but soy seems to increase bone density and prevent fractures after menopause, when the most dramatic bone loss occurs. Population studies find that bone density is also higher in tea drinkers. And some evidence shows omega-3s help prevent bone loss after menopause, possibly by calming inflammation.

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This monthly column on nutrition is produced in collaboration with the Arizona Center for Integrative Medicine. For more information, visit its website at integrativemedicine.arizona.edu.