

Protect Against Broken Bones With Diet, Supplements, Exercise

Broken bones are a serious health concern in older people. Fractures, a fancy name for broken bones, can cause chronic pain and long-term disability; for many people, a broken hip proves fatal.

Half of women over 50 will sustain an osteoporosis-related fracture in their remaining lifetime, as will 25% of men. The most common bones to break are the spine, hip and wrist, but a broken hip is dangerous, as it often means a steady decline in health and independence.

Who's at Risk? It's no surprise that falls cause most fractures. But what may come as a surprise is that most fractures in older people are the result of a simple fall when walking, not a dramatic fall down the stairs, according to a recent study in *Annals of Medicine*.

A major risk factor for broken bones is osteoporosis, in which bones become less dense, more brittle and prone to breakage. Additional risk factors for low bone mass include inactivity, poor nutrition, smoking and alcohol. Sedating medications may affect your sense of balance.

Defense Against Broken Bones. Defending bones from breaking calls for two strategies: strengthening bones and reducing the risk of falling. Check out *EN's* fracture-prevention plan (see also recommended nutrient totals, below):

Broken Bone Defense: Recommended Daily Totals From Diet and Supplements

Calcium: 1,200 to 1,500 milligrams
Vitamin D: 800 to 1,000 IU
Vitamin C: 200 milligrams
Protein: 70 to 100 grams

IU = International Units

Diet Considerations:

- **Get plenty of calcium** to help minimize bone loss by maintaining a supply of this essential mineral throughout life to replace ongoing bone loss. Good sources? Dairy products, tofu processed with calcium, canned salmon and sardines with the bones, broccoli and green leafy vegetables.
- **Don't forget vitamin D**, needed for calcium absorption and critical for bone mineralization. From what foods? Fortified milk, fatty fish, egg yolks and fortified cereals.
- **Bone up on protein** to keep muscles strong enough to keep your balance.

Supplement Considerations:

- **Take a multivitamin/mineral** to meet some of your vitamin D needs and to get other minerals besides calcium that are potentially important to bone health, such as magnesium and boron, as well as vitamin C, crucial for collagen formation.
- **Take a bone supplement** with additional calcium and vitamin D. Some studies suggest that calcium and D supplements can reduce the risk of breaking a bone by building muscle and actually reducing falls, in addition to strengthening bone.

Exercise Considerations:

- **Ideally, include three types of exercise in your regular routine:** weight-bearing activities like walking or tennis on most days to build strong bones; resistance exercises like free weights, weight machines or exercise bands two or three times a week; and balancing exercises like

Prevent Falls

Strong bones are important, but it's falling that breaks bones. Most falls occur in the home. Check out these practical tips for keeping your home safe:

- Remove throw rugs.
- Keep electrical cords around the perimeter, away from traffic areas.
- Install and use handrails on staircases, tubs and showers.
- Use non-skid mats in bathtubs.
- Clean up spills immediately.
- Arrange furniture to provide a clear path between rooms.
- Illuminate the passage between bedroom and bathroom.
- Keep floors and stairs clutter-free.
- Do not use patterned or dark carpeting on stairs.
- Repair loose stairway rugs and boards immediately.
- Use step stools with a handrail.

—H.W.

yoga or tai chi as often as possible.

- **Check with a physician** to decide which activities are safe for you.

Other Considerations:

- **Get safe amounts of sun**—10 minutes a day—on unprotected skin (see *EN*, September 2005) for your best source of vitamin D.
- **Discuss medications with a doctor.** Several medications help prevent loss of bone (*Evista*, *Fosamax*, *Actonel*) or actually build bone (*Forteo*). And some research suggests that cholesterol-lowering statin drugs like *Lipitor*, *Pravachol* and *Zocor* may cut the risk of bone fractures in half.

—Hillary Wright, M.Ed., R.D., L.D.N.

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