



Free Microsoft® Money Software and 3 months MSN® Internet Access

Mouse Over to Find Out How

MSNBC News

Health

Provided by WebMD

WEBMD HEALTH RESOURCE



- News
- Business
- Sports
- Tech • Science
- Living
- Travel
- Health
- TV News
- Opinions
- Weather • Local
- Shop@MSNBC
- MSN.com

QwestDex online yellow pages Find a Local Business

How to build stronger bones

Good nutrition and physical activity equals healthier bones

By Jean Lawrence
WEBMD

By the age of 50, one in two women and one in eight men will suffer a bone fracture from osteoporosis. Yes, osteoporosis (“porous bones”) affects men, too. Yet the advanced effects of bone loss — a humped upper back or easily shattered limbs — do not have to be in the future of people who eat wisely and exercise regularly.

E-MAIL THIS ✉

COMPLETE STORY ↘

Advertisement

Shopping on MSN



Panda Eye Pillow

\$14.95

Discovery Channel Store

100% Unconditional Guarantee!

More Health & Wellness Featured Offers

drugstore.com

GNC

MORE HEALTH NEWS:

Allergies
Interactives

Return to WebMD Health Resource
MSN Health

- Allergies Front
- Anatomy of a reaction
- Tips for beating allergies
- Interactive Checkup

ADVERTISING ON MSNBC

RESOURCE GUIDE

- eDiets Diet Center
- Shop at B&N.com
- Auctions at uBid
- Yellow Pages
- Newsletters
- MSN Broadband

SPONSORS



Eddie Bauer
OUTLET
Clearance
Apparel & Home Décor

25-70% Off
It's an Outlet blow-out! Save now
on Winter's hottest styles.

[Shop Now](#)

UNLIKE A fingernail or your hair, bones are living tissue. They contain nerves, blood vessels, and marrow, where blood cells are created. Bones are constantly tearing down and rebuilding themselves, like a freeway construction project that never ends.



Without this repair and reinforcement of even minor weak spots, we would break bones on a regular basis.

“When a person is under 20 years of age,” explains Dr. Felicia Cosman, medical director of the Clinical Research Center at Helen Hayes Hospital in New York and clinical director of the National Osteoporosis

Foundation, “you are forming more bone cells than you are losing.” But when women near menopause, rebuilding new bone slows down. A woman’s bone density begins to decrease.

Bone density is measured by a painless, low-radiation X-ray, which is translated into what Cosman describes as a “sort of confusing number” called a T-score. Basically, the patient’s bone density is compared to that of an average person between 20 and 30 years old — the time of peak bone density in a woman’s life.

A T-score of minus two or below should concern a 55-year-old woman, Cosman says, and might justify medication.

STEPS YOU CAN TAKE

To prevent porous, breakable bones as you age, you

need to have sufficient calcium and vitamin D. The body uses calcium for a number of functions and will take it out of the bones faster than it can be laid down if your diet does not pump enough calcium into the pipeline. But calcium is not the only component — bones are also one-third collagen, which is a protein that gives bones their flexibility.

Annemarie Colbin, Ph.D., author of “Food and Our Bones: The Natural Way to Prevent Osteoporosis”, urges us to look at the animals with the largest bones — cows, elephants. “What do they eat?” she asks. “Leafy plants.”

The biggest component of a bone-healthy diet is leafy greens, both cooked and raw, according to Colbin. “Greens give you not only calcium, but vitamin K, potassium, and other minerals and nutrients you need to lay down bone. My first three recommendations are vegetables, vegetables, vegetables,” she says with a laugh.



Vitamin D is also important for strong bones, and a good source is, believe it or not, the sun. Colbin recommends being out 20 minutes a day with no sunblock (SPF 8 or above blocks vitamin D), but Cosman vehemently disputes the wisdom of ever going out without sunblock and recommends a multivitamin or

vitamin D supplement.

Another building block of strong bones is protein (remember that collagen?). Colbin says mix it up — beans, fish, chicken. “You can’t eat the same boring diet every day.” Again, she urges you to select good-quality, properly raised, antibiotic-free protein sources. She also recommends making your own stock from animal bones — add a tablespoon of vinegar to 8 cups of water to pull the calcium out of the bones. Throw in a carrots, onions, pepper — and all you need is some garlic bread! If that isn’t enough richness, Colbin recommends adding kombu or canten, mineral-loaded, flavorless seaweeds found in health food stores.

Whole grain bread or pasta is helpful, too. “This gives you magnesium,” Colbin says. “You need sufficient magnesium to absorb the calcium you are putting in.”

WHAT ABOUT MILK OR SUPPLEMENTS?

It’s almost a mantra — drink milk for strong bones. Colbin is low-key on milk. “You see the most fractures in countries that drink a lot of milk,” she says. “I am not too keen on dairy.”

Cosman is also not enthused. “A lot of people drink milk, but I am not big on that,” she says. “Maybe low-fat milk or yogurt. Those calcium-enriched juices are

good.”

Not so good are sugar (increasing secretion of calcium and trace elements), caffeine (ditto), stress, and habitual dieting, which can “starve” your bones.

So what does that leave? Besides veggies and fruits, most women, at least the ones over 50, probably need some calcium supplements in the form of pills or little candies.

People over the age of 50 need about 1,200 mg a day, according to the American Medical Association, but postmenopausal women not taking hormone replacement therapy need about 1,500.

She also recommends everyone take a multivitamin (and the American Medical Association agrees). Should you take calcium citrate or calcium carbonate? Despite the raging debate on this, Cosman says the data are not conclusive. Consult your healthcare provider for a decision. There are some rare medical conditions that make calcium citrate preferable.

Incidentally, if you do take a calcium pill, take it at a time of day when you did not just eat a lot of calcium. If you have milk and fortified juice at breakfast, Cosman recommends taking the calcium pill at lunch.

EXERCISE

Bones last longer if you stress them more. It’s one of those medical conundrums. Exercising — putting the weight of your body or an outside weight on the bone — makes it lay down more bone material to strengthen it. “Use it or lose it!” quips Colbin. “Any exercise is better than none.”

Cosman agrees. “Ideally, several times a week — and you need aerobic, weight bearing, and resistance.”

But be careful — heavy weights or too vigorous exercise in women with osteoporosis might trigger a fracture.

Colbin even recommends against big, fat running shoes. “You don’t want that cushioning for this,” she says. (Older people also tend to fall and break bones less when they don’t wear what amounts to a platform shoe.) Basically, she says, walk a lot and carry stuff.

It works. A study done the University of Toronto shows that aerobic exercise, such as walking, jogging, or dance, improved the amount of calcium in the upper body and upper thighs, two areas at risk for fractures.

MEDICATIONS FOR BONE LOSS

If you have suffered bone loss, a number of medications exist to slow the reabsorption cycle so more bone remains. A new medication called Forteo is the first to build bone. “It’s very potent,” says Cosman, “and is only for those diagnosed with osteoporosis, not for prevention.” For one thing, Forteo is given by a daily injection.



Another medication popularly prescribed is Fosamax. This has been shown to reduce the risk of fractures but is a little tricky to take (you have to sit up afterward to prevent burning of the esophagus).

What about good old estrogen replacement? Hormone replacement therapy is approved for prevention of osteoporosis, but a much publicized study was stopped because one form of it increased the risk of breast cancer and other maladies. Cosman recommends against taking estrogen just for bone health.

Instead of a shelf full of pills, most people only need a well-stocked refrigerator. The process of bone remodeling is complicated but is hooked into the nutrients available to maintain your bones.

“You can’t put every little molecule in cauliflower into a pill,” Cosman says. “It’s simpler to eat the cauliflower.” Words to live by.

WebMD content is provided to MSNBC by the editorial staff of WebMD. The MSNBC editorial staff does not participate in the creation of WebMD content and is not responsible for WebMD content. Remember that editorial content is never a substitute for a visit to a health care professional.

MSNBC HEALTH NEWS

- STORY** Transplant teen has brain damage
- STORY** Sudden deaths of 5 kids trigger probe
- STORY** Nutrition Notes: Fast food, European-style
- STORY** CDC finds lapses in hospital hygiene
- STORY** Doctors add fees for calls, e-mails
- HOME** [MSNBC Cover Page](#)

MORE LINKS

MSNBC not responsible for content of internet links

- HEALTH** [MSNBC's Health Library](#)
 - HEALTH** [Return to Health front page](#)
-

MSNBC READERS' TOP 10

Thanks for voting.

[Click here to see the current Top10 list.](#)

[BACK TO TOP](#) ↗



MSNBC is optimized for
• **Microsoft Internet Explorer**
• **Windows Media Player**

• **MSNBC Terms, Conditions and Privacy © 2003**

[Cover](#) | [News](#) | [Business](#) | [Sports](#) | [Local News](#) | [Health](#) | [Technology & Science](#) | [Living](#) | [Travel](#)
[TV News](#) | [Opinions](#) | [Weather](#) | [Comics](#)

[InfoCenter](#) | [Newsletters](#) | [Search](#) | [Help](#) | [News Tools](#) | [Jobs](#) | [Write Us](#) | [Terms & Conditions](#) | [Privacy](#)

MSN - More Useful Everyday

[MSN Home](#) | [My MSN](#) | [Hotmail](#) | [Search](#) | [Shopping](#) | [Money](#) | [People & Chat](#)

©2003 Microsoft Corporation. All rights reserved. [Terms of Use](#) [Advertise](#) [Truste Approved](#) [Privacy Statement](#) [GetNetWise](#)