



Build Strong Bones

CHALLENGE
Strengthen your bones with diet and exercise

How much do you know about bone health? Take the quiz to find out:



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1. Drinking a lot of milk removes your risk for poor bone health.
2. You can usually tell if you have poor bone health by the way you feel.
3. Weight-bearing exercises put stress on your bones and make them stronger.
4. Vitamin D helps your body absorb calcium to improve bone health.
5. Exercise and good nutrition can help keep your bones healthy as you age.

How did you do? If you didn't answer all of the statements correctly, you could benefit from learning more about how to build strong bones. Milk contains vitamin D and calcium, but you need exercise for strong bones, too. If your bones are weak, you can't really tell. A fracture or break is usually the first sign. A healthy diet, exercise, and other lifestyle habits can keep your bones healthy as you age.

Answers: 1. False. 2. False. 3. True. 4. True. 5. True.

Requirements to complete this HEALTH CHALLENGE™

1. Read "Build Strong Bones."
2. To complete the challenge, do things that promote bone health on at least 22 days this month.
3. Keep a record of your completed challenge in case your organization requires documentation.



"I have fallen, and I can't get up." You may remember this as-seen-on-TV catchphrase by the older woman named "Mrs. Fletcher" who falls and calls for help.

Those words were actually coined by the late New Jersey actress Edith Fore. Before she was the star of the TV ad, she was actually injured in a fall, but managed to call for help. And it saved her life.

The classic commercial raised awareness about bone health and the risk of falling. It also became an icon of pop culture spoofed in movies, TV shows, and comic strips.

But a fall isn't a laughing matter. If your bones are weak, they're more likely to break if you fall.

An estimated 54 million people in the United States have poor bone health or osteoporosis.¹ It's a bone disease that depletes tissues and minerals that keep your bones strong. Older people are more likely to have poor bone health. But prevention starts when you're younger.

Want to keep your bones healthy as you age? Take the month-long health challenge to Build Strong Bones.

Are You Making These Bone-Health Mistakes?

Ever wonder what causes weak bones? Sometimes it's things you should be doing that you're not. Like weight-bearing exercises and strength training or eating a healthy-diet. Other times, your diet and lifestyle choices increase your risk for poor bone health.

Losing some bone mass is a normal part of the aging process. But some choices increase the risk for poor bone health such as:²

- Lack of exercise
- High blood pressure
- Eating a lot of sodium
- Smoking
- Drinking caffeine (coffee, energy drinks, or pills)
- Eating a lot of red meat
- Depression
- Drinking too much alcohol
- Taking certain medicines (such as steroids, blood thinners or diuretics)

5 Ways to Build Strong Bones

Get up. Walk around. Carry groceries. Work in the yard. Exercise. If you want to move and get around, your bones help make it happen.

But if they're weak, you could get hurt, fracture a bone, require a cast or surgery, and spend weeks or more in recovery. And it doesn't have to be that way. Here are five ways to build strong bones:

Prevent falls and fractures
tinyurl.com/y2kekxb2



4. Get more vitamin D. Vitamin D is vital to help your body absorb calcium and deposit it in your bones. You can get some vitamin D from food or supplements. But your best source of vitamin D?

The sun.⁶ Aim for about 15 minutes a day in the sun. When your skin is exposed to sunlight, it makes large amounts of vitamin D. If you're not getting enough vitamin D (common if you live in northern regions), talk to your doctor about getting tested or taking a vitamin D supplement.



1 **Exercise.** An exercise that puts weight on your bones or makes your muscles stronger helps make your bones stronger. Try jogging, walking, or playing tennis. Basic bodyweight exercises like squats, pushups, and lunges strengthen your bones too.³ Aim for at least two days of strength training exercises a week, and at least 30 minutes of exercise most days of the week.



2 **Eat protein-rich foods.** Did you know the living part of the bone is made up mostly of proteins. You need protein in your diet to keep your bones healthy.⁴ Good protein sources include legumes, nuts and seeds, low-fat dairy products, eggs, soy, fish, and lean meats like chicken or turkey.



3. Eat more plant-based foods. Your bones need essential nutrients found in fruits and vegetables, including vitamin K, vitamin B12, and calcium. These nutrients help make your bones more dense and slow bone loss as you age.

Food and your bones
tinyurl.com/jz86z2g

Add foods to your diet like: broccoli, kale, spinach, legumes, citrus fruits, and foods fortified with calcium.⁵



5. Make lifestyle changes. Take a look again at the list of things that cause poor bone health (*Are You Making These Bone-Health Mistakes?*). Are any of these habits part of your daily routine? If you

want to keep your bones healthy as you age, it may be time to make some changes. You may be able to do this on your own. Talking with your doctor, a nutritionist, or personal trainer can help too.

Easy ways to build better bones
tinyurl.com/yyzkcme

Take it one step at a time. You'll build stronger bones, be healthier, and enjoy a better quality of life.

References

1. National Osteoporosis Foundation. (2019). General facts: Bone health basics: Get the facts. From: <https://tinyurl.com/y5d6osn2>
2. Poursmaeili, F., et al. (2018). A comprehensive overview on osteoporosis and its risk factors. *Therapeutics and Clinical Risk Management*, 14:2029-2049. From: <https://tinyurl.com/y5wmjab2>
3. Hong, A., et al. (2018). Effects of resistance exercise on bone health. *Endocrinology and Metabolism*, 33(4): 435-444. From: <https://tinyurl.com/y5eqt9oq>
4. Taylor, W. (2019). Optimizing dietary protein for lifelong bone health. *Nutrition Today*, 54(3): 107-115. From: <https://tinyurl.com/y4ft56se>
5. Sahni, S., et al. (2015). Dietary approaches for bone health: lessons from the Framingham Osteoporosis Study. *Current Osteoporosis Reports*, 13(4): 245-255. From: <https://tinyurl.com/y33ad3pc>
6. Pfothenauer, K., et al. (2017). Vitamin D deficiency, its role in health and disease, and current supplementation recommendations. *Journal of the American Osteopathic Association*, 117, 301-305. From: <https://tinyurl.com/yyox9lc2>



Build Strong Bones

CHALLENGE
Strengthen your bones with diet and exercise

Instructions

1. Post this calendar where you will see it daily (bathroom, kitchen, bedroom, or by your house keys).
2. Create a plan to strengthen your bones with diet and exercise.
3. Use the calendar to record your actions and choices to strengthen your bones.
4. At the end of the month, total the number of days you made small changes to strengthen your bones. You must do this on at least 22 days this month to complete this challenge. Then keep up the practice for a lifetime of best health.

MONTH:							HC = Health Challenge™ ex. min. = exercise minutes
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	Weight & weekly summary
HC [] ex. min. _____	HC [] ex. min. _____	HC [] ex. min. _____	HC [] ex. min. _____	HC [] ex. min. _____	HC [] ex. min. _____	HC [] ex. min. _____	
HC [] ex. min. _____	HC [] ex. min. _____	HC [] ex. min. _____	HC [] ex. min. _____	HC [] ex. min. _____	HC [] ex. min. _____	HC [] ex. min. _____	
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_____ Number of days this month I took action to strengthen my bones

_____ Number of days this month I was physically active for at least 30 minutes

Other wellness projects completed this month:

Name _____ Date _____