

Physical Activity and Exercise for Strong Bones

Is regular physical activity important for strong bones?

Yes. Regular physical activity, or exercise, is good for your heart, muscle tone, flexibility, and coordination. It's good for you at any age.

Children and young adults need exercise to build and keep bones strong. Older adults need exercise to build strength, help with balance, and improve both their posture and the way they move (body mechanics) as they go through their daily life. Exercise can help prevent falls, too.

How does exercise help my bone health?

Exercise can help improve and maintain your bone health. It can:

- Increase bone density in children and young adults.
- Maintain and even slightly increase bone density and strength in adults.
- Increase muscle mass and agility.
- Improve posture and body mechanics.
- Improve balance.
- Reduce the risk for falls and broken bones.

What type of exercise or physical activity is good for my bone health?

Physical activity of any kind is important for overall wellness. It is important to try and do some type of physical activity or exercise every day. An ideal exercise and physical activity program include:

Weight-bearing Exercise: Any activity in which your body works against gravity. Your legs and feet support your weight. This type of exercise builds bone mass in children and maintains it in adults. Examples: walking, racquet sports, dancing, and many team sports. Swimming and bicycling are not weight-bearing exercise but they make muscles strong.

- **Postural Training Exercise:** Promotes correct posture and proper body alignment. These exercises can help with stooped posture. Example: Pulling your shoulders back and tucking your chin against your chest.
- **Stretching Exercise:** Keeps your body flexible by lengthening muscles, tendons, and ligaments. Stretching helps maintain the motion you need to keep your balance. Example: Sitting up tall while stretching your arms overhead with fingers interlocked.
- **Balance Exercise:** May help reduce falling. Example of a balance exercise that also makes muscles strong: Tai Chi

In addition to physical activity, you should know how to prevent a fall. Learn about risk factors and how to make your home safe. Talk to your health care provider about medicine that may affect your balance.

Do you have osteoporosis? Did you break a bone when you were older than 50?

If so, you should avoid certain movements and positions during physical activity and daily activities such as:

- **Spinal flexion:** Avoid forward bending/flexing of the spine during all exercises and movements. Bending of the spine puts undue stress on each of your back bones and could cause fractures. This could include movements where the back is curved too much like toe touches, curl sit-ups, and reaching for the floor with straight legs.
- **Excessive Twisting:** This is especially important when in a standing or seated position when there is weight through the spine.
- **Heavy Lifting:** To prevent injury, avoid heavy lifting. Also, be sure to ask your health care provider or physical therapist about the right body mechanics for lifting, such as bending your knees.

Always follow safe physical activity guidelines, such as:

- Exercise to the best of your ability without any pain.
- Exercise using your best posture.
- Breathe through any exercise. Do not hold your breath.
- Exercise with smooth, steady movements.
- Always keep a slight bend in arms and legs.
- Have you had a broken bone? Had a total hip replacement? If so, follow the precautions from your health care provider or physical therapist.
- It is common to have sore muscles up to a few days after muscle-building exercises. If an exercise causes constant pain, stop doing it. Talk with your health care provider to see if that exercise is right for you.

Physical activity needs to be tailored to your age and health status

Important: Follow the activity recommendations of your health care provider or physical therapist. They will know the safest activities for you. They will consider all your medical conditions and/or physical limitations. Even if you are limited in the type or amount of exercise you can do, any safe physical activity is better than no exercise!

Have you been told you have osteoporosis? Do you have a history of broken bones? If so, it is often best to see your health care provider before starting an exercise program. Ask for a prescription to talk with a physical therapist.

Most fractures occur as a result of a fall. Avoid any exercise or physical activity that increases your risk of falling. This will help you choose a safe physical activity.