



Colorado Center for
BONE RESEARCH

TIPS FOR FALL PREVENTION

Preventing falls is important for older persons and for anyone with osteoporosis. A person with osteoporosis is more susceptible to a fracture when a fall occurs, especially in the hip, spine or wrist. More than 90 percent of hip fractures are associated with osteoporosis. And nine out of ten hip fractures in older Americans are the result of a fall.

Fractures can be serious and have the potential to limit one's ability to lead an active, independent life. Among Americans age 65 or older, fall-related injuries are the leading causes of death due to unintentional injuries.

Except for people living in perpetually sunny climates, most of us face winters with shorter days, cold temperatures, snow and even ice. While inclement weather can be dangerous for anyone, it is a special concern for people with osteoporosis.

Each year about one-third of all persons who are 65 years and older experiences a fall. Because three out of four of these falls occur indoors, it is important to identify the major hazards in the home and find ways in which to "fall proof" the home.

Older persons with osteoporosis, particularly those in their 80s and 90s, have fragile bones, but they also gradually lose much of the muscle and body fat that have cushioned and protected their bones. Loss of padding in the hip area may make the hip more vulnerable to a fracture.

The good news is that falls can be prevented by giving attention to safety both indoors and out, by being aware of physical changes with advancing age and by engaging in appropriate lifestyle behaviors.

OUTDOOR SAFETY TIPS

- Wear low-heeled shoes with rubber soles for added traction, and wear warm boots in winter.
- Use hand rails as you go up and down steps and on escalators.
- If sidewalks look slippery, walk in the grass for better traction.
- In winter, carry a small bag of rock salt, kosher salt or kitty litter in your pocket or car. You can then sprinkle the salt or kitty litter on sidewalks or streets that are slippery.
- Look carefully at floor surfaces in public buildings. Many floors are made of highly polished marble or tile that can be very slippery. When these surfaces are wet, they may become

dangerous. When floors have plastic or carpet runners in place, stay on them whenever possible.

- Keep your porch, deck, walkways and driveway free of leaves, snow and debris, and keep them in good repair.
- Cover porch steps with a gritty, weather-proof paint.
- Turn on the porch light before leaving your home in the early evening so that you have outdoor light when you return after dark.
- Use a shoulder bag, fanny pack or back pack to leave your hands free.
- Use a walker or cane as needed for added stability.
- Identify community service that can provide assistance, such as 24-hour pharmacies and grocery stores that take orders online or over the phone and deliver, especially in poor weather.
- Stop at curbs and check the height before stepping up and down. Be cautious at curbs that have been cut away to allow access for bikes or wheelchairs. The incline may lead to fall.
- Consider wearing hip protectors or hip pads for added protection should you fall.

INDOOR SAFETY TIPS

- Keep all rooms free from clutter, especially on the floors.
- Keep floor surfaces smooth but not slippery.
- Wear supportive, low-heeled shoes even at home. Avoid walking around in socks, stockings or scuffs.
- Check that all carpets or area rugs have skid-proof backing or that they are tacked to the floor, including the carpeting on stairs.
- Keep all stairwells well lit with handrails on both sides. Con colored tape on the edges of the top and bottom steps.
- Keep electrical cords and telephone lines out of walkways.
- Install grab bars on bathroom walls beside tubs, showers and toilets. If you are unstable on your feet, consider using a plastic chair with a back and nonskid leg tips in the shower.
- Use a rubber bath mat in the shower or tub.
- Keep a flashlight with fresh batteries beside your bed and consider placing a night light in your bedroom and/or hall.
- Use at least 100 watt bulbs in your home to have ample light.
- Add ceiling fixtures to rooms lit by lamps only, or install a lamp that can be turned on by a switch near the room entrance. Another option is to install voice or sound activated lamps.
- Reorganize work areas and storage to minimize the need for stooping or excessive reaching. If you must use a stepstool, make sure that it is sturdy and has a handrail and wide steps.
- Avoid sitting in chairs that have wheels.
- Make certain that the nighttime temperature in your home is not lower than 65 degrees. Prolonged exposure to cold temperatures may cause body temperatures to drop, leading to dizziness and falling. Many older persons cannot tolerate cold as well as younger people.



- Use caution in getting up too quickly after eating, lying down or resting. To help avoid dizziness when getting out of bed, sit on the side of the bed for a minute or two before getting up and standing.
- Consider purchasing a portable phone that you can take with you from room to room. It provides security because not only can you answer the phone without rushing for it, but you can also call for help should an accident occur.
- Arrange with a family member or friend for daily contact. Always have at least one person who always knows where you are.
- Give some thought to contracting with a monitoring company that will respond to your call 24 hours a day if you live alone.

PHYSICAL CHANGES

A fall can occur because of diminished reflexes, balance problems, hearing impairments, vision changes, existing illnesses and medications.

Reflexes

Reflexes are automatic responses to stimuli in the environment. Examples include slamming on your car brakes when a child runs into the street or moving out of the way quickly when something falls in front of you. As you age, your reaction time slows and regaining your balance following a sudden movement may be difficult. This decreased ability to control your movements can result in a fall.

To improve body control, keep up an active lifestyle. Activity maintains muscle tone and flexibility and slows bone loss. Regular weight-bearing exercises and weight training can build and tone muscles, even in older persons. Keeping up the strength in your arms and legs can go a long way to improving how well you move. Talk to your healthcare provider about activities that are safe and beneficial for you, keeping in mind your individual situation.

Balance

Improving your balance helps to prevent falls. There are several ways to enhance balance. Consider joining a class or group that practices Tai Chi. It is an exercise that can improve balance and coordination. Lack of exercise not only robs your bones of density, but it can lead to muscle weakness, which increases your risk of falling. Here are some additional tips to help with balance:

- Obtain maximum vision correction and practice exercising with your bifocal or trifocal glasses.
- Stay informed about the side effects of your medications and follow the instructions for taking them.
- Regularly practice balance exercises.
- Engage in muscle-strengthening exercises.



Balance Exercises to Practice:

While holding the back of a chair or counter top, practice standing on one leg at a time for a minute. Gradually increase the time. Then try balancing with your eyes closed. And, then try balancing without holding on.

While holding the back of a chair or counter top, practice standing on your toes. Then rock back to balance on your heels. Hold each position for a count of 10.

Hearing

Changes in hearing occur as we age. Sounds around us help orient us to where we are and when we are in danger. If you do not hear as well as you used to, or if you are always asking those around you to repeat themselves, it is time to have a hearing test. If you have hearing loss, be sure to wear a hearing aid.

Vision

Vision also changes with age. Cataracts or glaucoma can develop. Your eyes may take longer to adjust to changes in the light and glare. Changes in depth perception or peripheral vision can decrease your ability to judge the steepness of stairs and curbs or to avoid obstacles in your path. Have regular eye exams, and if needed, wear prescription glasses or contact lenses.

Illnesses and Medication

Some people have illnesses that affect circulation, sensation or mobility. Stay informed about your medical conditions.

Certain medications, such as blood pressure pills, heart medicine, diuretics, sleeping pills, sedatives, antidepressants, muscle relaxers and tranquilizers, can cause confusion, dizziness, disorientation and slowed reflexes. Talk to your healthcare provider or pharmacist about the side effects of the drugs that you take and how they may affect your coordination or balance.

Ask your healthcare provider whether there is a relationship between any symptoms you are having and the medicines you are taking. Be aware that the use of multiple medicines can increase your risk of falling. **Never change or skip medications without first talking with your healthcare provider.**

LIFESTYLE BEHAVIORS

Certain lifestyle behaviors, such as drinking alcoholic beverages, can make a person more susceptible to a fall.

- Alcohol slows reflexes and may cause confusion, dizziness or disorientation.

- Persons in a hurry need to slow down. Accidents are more likely to happen when you do things in haste.
- It is important to stay alert and focused when in public places.
- Exercising regularly helps maintain bone density.
- Physical training can increase muscle strength and size which helps to support the bones and prevent injury.
- Good nutrition with an adequate daily intake of calcium and vitamin D are important to bone health at all ages.
- If you need glasses, wear them
- If you need a hearing aid, use it.
- Remember to wear appropriate shoes both indoors and out.