

Senior Series





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Improve Balance: Prevent Falls

B alance declines with age. Many factors contribute toward making the older adult susceptible to falls. These include:

- Impaired hearing and vision
- General loss of muscular strength and tone
- Arthritis
- Osteoporosis
- Vertigo
- Cerebrovascular insufficiency
- Neurologic disability (stroke)
- Postural hypotension (sudden decrease in blood pressure)
- Illness

Accidents are the sixth leading cause of death in persons over age 75, with falls being the leading factor. Changes in spinal alignment can make it difficult to maintain balance. Safe posture exercises and pectoral stretches to assist in the alignment of the spine may be beneficial.

It may be useful to perform specific exercises designed to improve balance, such as the sustained one-legged stand. Hold onto a secure object during balance training, such as a sturdy chair.

The knee lift is another excellent exercise for balance. Attempt to lift the knee as high as the hip using a secure object to assist in maintaining balance in the beginning. As you grow stronger, decrease the tendency to lean on a support, and try holding the leg up for 3 seconds or longer.

With aging, knee strength may be reduced, accompanied by weakness of the hip muscles. Calf stretches, toe-tapping, point and flex exercises, leg lifts to the side and exercises which bend and straighten the knee may be beneficial. The sit-to-stand exercise is highly specific; when necessary, use the chair for support when standing and again when returning to a sitting position. Try to gradually decrease use of the arms as the legs get stronger.

When walking, if the pelvis does not shift far enough, the older adult's foot will swing too low causing a decreased height in step, which can cause tripping and falling. Exercises that target the pelvis may be beneficial. Using a chair for support, pretend that you are trying to keep a hula hoop around your waist.

In addition to lower step height, many older adults develop a shorter step length. Walking forward, backward, and sideways in front of a mirror will encourage the older adult to check posture, length of stride, and walking efficiency. Holding a balance bar, side-step right along the length of the bar and then repeat to the left. Additionally, gentle range-of-motion exercise for the entire body may help to prevent and break falls.

A six-week exercise program consisting of walking 30 minutes three times per week in adults 72 years of age, showed dramatically improved balance performance compared to the same age group who did not walk. Another study found 20 women

(median age 68.7 years) who had performed regular, vigorous physical exercise for at least 10 years had better balance than 20 age-matched, sedentary female controls. Therefore, appropriate aerobic exercise training may be particularly useful in maintaining balance.

Your body is a miracle. It is the only one you will receive, so treat it with the best of care.

References

American Senior Fitness Association, *Senior Personal Trainer Manual* (1995, 1996, 2000).

It is important to never close the eyes while performing standing stretch and relaxation activities due to difficulties maintaining balance.

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