

# Fall Prevention

## *What You Can Do to Help Patients*

By **Celeste Carlucci** and **Julie Kardachi, OTD, OTR/L**

**F**reda, your longtime patient, aged 76, shuffles into your consulting room for her regular appointment to follow up about her medication adherence and progress with hypertension and hypercholesterolemia. She's also been diagnosed with osteoarthritis, osteoporosis, early stage age-related macular degeneration, and depression. She rarely mentions her other problems and, like many of your other clients, tries not to take up too much of your time, knowing how busy you are. She lives alone; her dear sister, whom she saw daily and who lived nearby, died six months ago. In your brief appointment, you check on her medication adherence and dietary changes for her two primary diagnoses. She appears to be complying with recommendations and doing well on her current regimen. There's little time for any further follow-up, because of the emergency case you had this morning and your waiting room full of patients.

Have you done all you want to do for Freda? Is she at risk for other problems, specifically falls? How can you address all of her other issues in this one short visit?

You already know the statistics. One-quarter of all older adults fall each year, but less than one-half will tell their health care providers. People who fall once are twice as likely to fall again. One-fifth of these falls cause serious injury, and more than 800,000 people are hospitalized each year because of a fall injury. Costs related to falls are skyrocketing, at about \$50 billion annually.<sup>1</sup>

Less than one-half of primary care providers address falls in routine office or annual wellness visits, and when they do, they frequently do not assess two common risk factors—medications and home environment.<sup>2</sup> Barriers to addressing these risk factors may include lack of awareness, other

issues competing for attention, limited time, difficulty involving patient's family, and lack of training.<sup>3</sup>

The Centers for Disease Control and Prevention (CDC) created Stopping Elderly Accidents, Deaths, & Injuries (STEADI) to help health care providers who treat older adults who are at risk of falling or have a history of falls. STEADI provides tools and resources to help practitioners screen, assess, and intervene during routine visits to reduce fall risks. Within these tools, the CDC STEADI program suggests that practitioners ask three questions as a routine part of the examination: Have you fallen in the past year? Do you feel unsteady when standing or walking? Do you worry about falling? If the patient answers yes to any of these, follow up is recommended.<sup>4</sup>

### **Top 10 Risk Falls Factors**

Following are the top 10 risk factors to consider when you meet with your patients:

**1. A previous fall:** After one fall, older adults have three times the risk of future falls. Previous falls also increase anxiety and fear of falling, which may result in avoidance of activity, putting people at further risk due to muscle weakness from lack of use.<sup>1,5,6</sup>

**2. Polypharmacy:** Multiple medications have been shown to increase fall risk, for example, some cardiac and hypertension medications, topical eye drops, and many medications with dizziness or drowsiness as side effects. In addition, the interactions between multiple medications including over-the-counter medicines and supplements can increase risk.<sup>1,6</sup>

**3. Multiple health concerns:** Diagnoses such as arthritis, cardiovascular disease, hypertension, incontinence, and other acute and chronic health conditions have been linked to fall risk,



either through physiological mechanisms associated with the conditions, consequent impairment of mobility and balance, or decreased activity participation.<sup>5,6</sup>

**4. Impaired strength and balance:** Age-related changes in muscle composition and strength, coupled with decreased joint flexibility, especially in the lower extremities, can impair balance and ability to recover after a trip, increasing likelihood of falls; poor balance can double the risk for falls.<sup>5,6</sup>

**5. Forward head posture and shuffling gait (or not picking up feet):** Kyphotic posture shifts center of gravity forward of the base of support “halfway to falling,” while a poor gait pattern increases risk of tripping on uneven surfaces. Gait and posture may be assessed by watching patients walk into your clinic and by observing how easily they get up from a regular chair. Try the 30-second chair stand test, which assesses leg strength and endurance by measuring the number of times in 30 seconds that patients can stand up from a chair without using their arms.<sup>1,4-6</sup>

## Patient Tips to Reduce Unsafe Behaviors that Increase the Risk of Slips, Trips, and Near Misses

1. When walking your dog, step on the leash when you bend to clean up after your dog. If the dog gets frisky, you won't get carried away.
2. Eliminate a problem when you first see it: If you think, “This is unsafe, but I'll take care of it later,” don't wait. Take care of it now.
3. Hold the rail on stairs or escalators even if you think you don't need it.
4. Don't multitask. Stop walking and stop your conversation before reaching for something in your back pocket or purse.
5. Don't step over obstacles such as a low fence, a box in the supermarket aisle, or a barrier. It isn't worth the unnecessary risk.
6. As soon as you see the walk sign, go. If it has started blinking, it's too late. Wait for the next light so you don't have to rush across in front of traffic.
7. Don't run to catch the bus, your grandchild, or your dog. Even the fittest older adults can have accidents while rushing.
8. Use a safe, sturdy stepladder very carefully. If something is too high, invite a friend or family member to help you reach it.
9. When you're feeling blue, call a friend. Go out for coffee, or even better, sign up to take an exercise class together.
10. Remember, change begins with you. Take prevention seriously.

— SOURCE: CARLUCCI C. MOVE STRONG: 10 TIPS TO REDUCE YOUR RISK OF FALLS. HUFFINGTON POST WEBSITE. [HTTPS://WWW.HUFFPOST.COM/ENTRY/MOVE-STRONG-10-TIPS-TO-RE\\_N\\_5855422](https://www.huffpost.com/entry/move-strong-10-tips-to-re_n_5855422). UPDATED DECEMBER 7, 2017. ACCESSED MARCH 29, 2019.

**6. Lack of activity:** A decrease in participation in activities, or a generally sedentary lifestyle, accelerates age-related muscle weakness and deterioration in mobility, balance, and posture.<sup>6</sup>

**7. Vision problems:** Age-related eye disease and age-related vision changes affect the ability to see the environment and potential hazards clearly and to accommodate to changes in brightness. Progressive or bifocal lenses can make it difficult to accurately discern changes in walking surfaces and the edges of steps. Vision problems increase the likelihood of falling by 2.5 times.<sup>5,6</sup>

**8. Unsafe behaviors:** Rushing, multitasking, wearing non-supportive shoes, not paying attention to surroundings either in familiar or unfamiliar environments, performing activities beyond one's current physical ability, and standing on a stool to access high cabinets are examples of behaviors that cause approximately 5% of all falls. Use of alcohol and recreational drugs, especially if they interact with prescription medications, can also increase risk for falls.<sup>6</sup>

**9. Depression, loneliness, anxiety, fear of falling, and lack of social connection:** These psychological factors can compound each other and increase fall risk. People may avoid or reduce physical activity and engagement in regular household tasks due to fear of falling, reduced alertness, or lack of motivation. This reduction in physical activity results in loss of strength, balance, and mobility.<sup>5,6</sup>

**10. The environment:** Home environments with excessive clutter, loose carpets, poor lighting, slippery surfaces, and other hazards increase fall risk. Particularly at risk are those people with mobility and cognitive impairments. Bathrooms, with their slippery, hard, and often wet surfaces, provide an additional risk. Outdoor hazards include uneven sidewalks, pavement cracks, slippery surfaces, and obstacles.<sup>6</sup>

How many of these factors does Freda have, putting her at greater risk for falls? She has at least five out of 10: polypharmacy, multiple medical conditions, poor posture and gait, vision problems, and depression.

It's been noted that changes that may increase risk for falls actually start much earlier than the senior years and that fall risk should be assessed in patients in their 50s and 60s. People in this age group are surprised when they fall and they see the fall as an anomaly, rather than something that may indicate the need for action. Health care providers should start making recommendations that will help prevent falls to people in this age group, especially for balance and strength training.<sup>7</sup>

## What Can You Do?

What should you do if your clients answer yes to one of the three CDC STEADI program questions or has a history of one or more of the top 10 risk factors?<sup>28</sup> In the authors' experience of running daily fall prevention programs for more than 15 years (as the founders and creators of Fall Stop...MOVE STRONG, a community-based fall prevention and strengthening program), participants value community and a sense of belonging, being heard, finding others with similar issues, and finding solutions among their peers. Empowering them with solutions helps to demystify the changes that are occurring. More specifically, there are several immediate and important steps you can take to help individuals like Freda and all your at-risk patients.

## 8 Tips to Give Patients for Safe, Mindful Walking

1. Stand tall with your shoulders back, abdominals engaged, and your head up.
2. Walk heel-to-toe: strike with your heel first.
3. Engage your thigh muscles to help lift your feet off the ground.
4. To change direction while walking, try this dancers' tip: stop, turn your head, and spot (ie, focus on a stationary object)—then turn your body in the new direction.
5. When walking in the snow, engage your abdominal muscles and lean slightly forward. Plant your foot flat on the ground with each step.
6. Imagine yourself 20 years younger.
7. For your well-being, make walking a mindful meditation. Pay attention to your breath and how you're moving. Forget about the shopping list and be present.
8. Anchor your mind on where you are right now.

— SOURCE: CARLUCCI C. 8 TIPS FOR SAFE MINDFUL WALKING. PUT YOUR MIND IN YOUR FEET. THRIVE GLOBAL WEBSITE. [HTTPS://MEDIUM.COM/THRIVE-GLOBAL/8-TIPS-FOR-SAFE-MINDFUL-WALKING-3E97A5EFB9C0](https://medium.com/thrive-global/8-tips-for-safe-mindful-walking-3e97a5efb9c0). UPDATED MARCH 7, 2017. ACCESSED MARCH 29, 2019.

**1. Recommend a good fall prevention program that includes education and exercise that target strength and balance training.** A walking program, while good for general cardiovascular fitness and even socialization, has not been found to reduce falls unless participants include some balance and strength exercises along their walking routine.

Fall Stop...MOVE STRONG is a fall prevention and strengthening program that includes education and joyful dance-based movements that target strength, balance, alignment, flexibility, and coordination. One of the features of the program is that it is joyful and fun; evidence shows people are more likely to participate and continue with exercise they enjoy.<sup>9</sup> Other evidence-based fall prevention programs include group exercise programs such as tai chi and a Matter of Balance, as well as individualized home exercise programs such as the Otago program.<sup>10</sup>

Even if there's a good fall prevention program your patients can attend, but especially if there isn't, home-based exercise programs available via DVD or online can be helpful to those who are motivated to work out on their own.

A patient's employer or health plan may provide access to fall avoidance programs, and the clinician may suggest the patient research this possibility. For example, Fall Stop...MOVE STRONG videos are available as part of a Fall Avoidance Program on CaféWell ([www.cafewell.com](http://www.cafewell.com)), a health optimization platform used by many health plans and employers.

**2. Conduct a medication check.** Regularly check all the medications your patients take. No doubt you have clients who see other practitioners and forget to tell you about medications those providers prescribe. Encourage them to use one pharmacy that can help keep track of what they are taking.

**3. Refer patients for a vision check.** Your clients should have their vision checked regularly, update their lens prescriptions,

and wear their glasses. You can influence and support them in this preventive measure.

**4. Refer patients to an occupational therapist for a home evaluation.** Home safety assessments and modifications have been found to reduce falls, especially if conducted by an occupational therapist who can help clients identify risks in their homes and offer strategies to reduce those risks. Simple bathroom modifications such as installation of grab bars, shower chairs, and nonslip mats can increase patients' safety during daily bathing and toileting.<sup>5,8</sup>

**5. Refer for counseling those patients who have expressed a fear of falling that limits their activity levels.** Experienced mental health practitioners with knowledge of trauma and fear of falling will be able to help your clients who've experienced the cascade of problems resulting from fear of falling.

**6. Refer at-risk patients to physical therapists for gait assessment.** A physical therapist can fully evaluate individuals' walking abilities, correctly prescribe the appropriate ambulation devices, and make sure patients know how to use those devices.

**7. Refer patients to a pedorthist.** Many older adults wear incorrect sizes or otherwise ill-fitting footwear providing little support and increasing risk for falls. A qualified shoe fitting specialist will guide your patients to select and wear the best-fitting shoes for their feet, especially if they have neuropathy, diabetes, and other foot issues that compromise their mobility.

**8. Empower people to recognize and address what needs to be changed in their environment to make their homes safer.** For example, remove stacks of magazines from the floor, take up rugs, position cords and wires against walls, install grab bars in the bathroom, ensure stair rails are sturdily attached, and avoid creating obstacles such as leaving the dishwasher door open when going to answer the phone. There are many good home safety checklists patients can use, including those on the CDC STEADI website.<sup>4</sup> Ideally, your patients will learn to become aware, alert, and no longer afraid, and will be able to participate fully in all their meaningful daily activities. Share with patients the tips provided in the sidebar for safer walking and minimization of hazards and provide them with links to helpful online materials such as those available from the CDC and others referenced in this article.

With your help, your patients will become more mindful of what they're doing and how they're doing it and will be less likely to engage in unsafe behaviors or avoid tasks that they are able to do safely. Your encouragement will help them become more aware of their bodies and how they do things and make them confident they are leading safe and active lives.

— Celeste Carlucci is founder and CEO of Fall Stop...MOVE STRONG.

— Julie Kardachi, OTD, OTR/L, is an occupational therapist and associate professor at Touro College School of Health Sciences Occupational Therapy Program.



For references, view this article on our website at [www.TodaysGeriatricMedicine.com](http://www.TodaysGeriatricMedicine.com).