

Clinical Practice Guideline: **Injury Prevention (Fall Risk Assessment in Older Adults)**

Date of Implementation: **June 19, 2014**

Effective Date: **May 21, 2026**

Product: **Specialty**

GUIDELINES

Among portal of entry practitioners, screening all patients 65 or older for fall risk is considered best practice. Providing direct intervention (e.g., lifestyle and/or dietary changes) for patients for whom the screening results indicated a need for intervention, will depend upon the practitioner’s education, training, experience, and scope of practice. In the absence of such direct intervention, providing a referral intervention (e.g., to the patient’s medical physician) is considered necessary. The screenings described in this policy may be outside the education, training, experience, or scope of some practitioner types. In the context of best practices for these practitioners, a level of awareness that risk factors and/or signs/symptoms of fall risk are present is required and a subsequent referral for appropriate evaluation is necessary and within the purview of all.

INTRODUCTION

According to the Center for Disease Control and Prevention (CDC), unintentional injury is among the top 10 leading causes of death for all ages. Falls among adults aged 65 and older are very costly. Each year about \$50 billion is spent on non-fatal fall injuries and \$754 million is spent on fatal falls. Each year, millions of older people—those 65 and older—fall. In fact, more than one out of four older people fall each year, but less than half tell their doctor. Falling once doubles your chances of falling again (CDC, 2024).

Fall prevention in older adults is a key area of injury prevention where practitioners can play an important role. Injuries as a result of falls can result in decreased quality of life, disability, and/or death in older adults.

Assessing Fall Risk

The Prevention of Falls Network Europe and Outcomes Consensus Group define a “fall” as “an unexpected event in which the participant comes to rest on the ground, floor or lower level.” They recommend incorporating this definition when taking a fall history, by asking patients, “Have you had any fall including a slip or trip in which you lost your balance and landed on the floor or ground or lower level?” (Hauer 2006). The optimal interval for asking about falls has not been determined. However, the American Geriatrics Society recommend that clinicians ask their patients yearly about falls and balance or gait problems.

The National Center for Injury Prevention and Control (under the CDC) recommends the following *Algorithm for Fall Risk Screening, Assessment, and Intervention*.

STEADI Algorithm for Fall Risk Screening, Assessment, and Intervention among Community-Dwelling Adults 65 years and older



The Stay Independent brochure referenced above can be found online:
<https://www.cdc.gov/steadi/pdf/STEADI-Brochure-StayIndependent-508.pdf>

The Agency for Healthcare Research and Quality (AHRQ) is under the U.S. Department of Health and Human Services and sponsors the United States Preventive Services Task Force (USPSTF), a leading independent panel of private-sector experts in prevention and primary care. USPSTF conducts rigorous assessments of scientific evidence for the effectiveness of a broad range of clinical preventive services, including screening and counseling.

A comprehensive review of the USPSTF rating process can be found in the *Preventive Care Services (CPG 140 – S)* clinical practice guideline or at the USPSTF website (<https://www.uspreventiveservicestaskforce.org/Page/Name/grade-definitions>).

The USPSTF states that no single tool or brief approach can reliably identify older adults at increased risk for falls, however, several reasonable and feasible approaches are available. Clinicians can consider a small number of factors, such as age, which has a strong correlation to fall risk. Other factors such as a history of falls and/or gait and balance problems (e.g., performing poorly on the Timed Up and Go or TUG test) would flag patients for increased risk of falling.

Three key questions, commonly found on fall risk screening tests, can be efficiently used by a practitioner to determine if further screening is necessary for older adults at risk. Positive responses to any of these would warrant further evaluation for fall risk. These questions include:

1. Has the person fallen in the last year?
2. Are they worried about falling?
3. Do they feel unsteady?

The American Geriatrics Society recommends evaluating gait and balance in older adults who have experienced falls. Those who perform inadequately or are unable to complete a standardized gait and balance test should be given a multifactorial fall risk assessment. The elements of a multifactorial risk assessment can include a focused medical history (e.g., falls and medication review), physical examination (e.g., evaluation for postural dizziness/postural hypotension, visual acuity, feet, and footwear), functional assessments (e.g., cognitive screening) and an environmental assessment.

Commonly used tests to evaluate a patient's gait and balance for fall risk include but are not limited to the following:

- Timed Up & Go (TUG) Test – evaluates individual's ability to transfer in and out of a chair, measures gait speed, dynamic balance, and mobility;
- Get Up & Go Test – evaluates and assesses static and dynamic balance, gait, and mobility;
- Berg Balance Scale – rates an individual's ability to maintain balance while performing static and dynamic mobility related tasks;

- Dynamic Gait Index – rates the ability of an individual to perform challenging tasks during gait;
- Tinetti Performance Oriented Mobility Assessment (POMA) – task-oriented test that measures an adult’s gait and balance abilities.

These tests may also provide information about the person’s cognitive abilities and their capacity to follow instructions.

Interventions

A 2018 systematic review funded by the AHRQ examined interventions designed to reduce falls in older adults (Guirguis-Blake et al., 2018). The following results were noted:

- The current evidence base demonstrates that exercise is associated with fewer people experiencing a fall and a reduced number of injurious falls in average- and high-risk older adults (“high-risk” meaning experienced a fall).
- Multifactorial interventions showed a 21% reduction in the incidence rate of falls with substantial heterogeneity but showed no effect on people experiencing a fall, people experiencing an injurious fall, or mortality. Trials are clinically and statistically heterogeneous.
- No specific effective exercise or multifactorial protocol has been replicated in larger population trials.
- Vitamin D, environment, and medication management interventions have either single trials showing no statistically significant effect or a few trials reporting mixed results.
- Single trials of cognitive behavioral, knowledge + environment, and exercise + environment + vision interventions showed moderate effectiveness in reducing falls and/or people experiencing a fall.
- Limitations – excluded neuro- population and other specific diagnosis.

Chiu et al. (2021) investigated the effectiveness of the Otago Exercise Program (OEP) intervention on actual balance performance (i.e., static, dynamic, proactive, or reactive balance) and perceived balance ability (i.e., balance confidence or fear of falling) for older adults in a meta-analysis; the secondary aim was to examine which OEP protocol most improves balance in older adults. A total of 12 RCTs were included in the analyses. The OEP exerted significant effects on static balance, dynamic balance, proactive balance, and perceived balance in older adults. Subgroup analysis indicated that the group format for the OEP was more effective for improving static, dynamic and perceived balance than was the individual format. Sessions of >30 minutes were more effective in improving static and perceived balance than were sessions of ≤30 minutes. Authors concluded that the OEP is helpful for improving actual balance including static, dynamic, and proactive balance; enhancing confidence in balance control; and reducing fear of falling in older adults. Administrating the OEP in a group setting in >30-minute sessions may be the most appropriate and effective exercise protocol for improving balance.

Sadaqa et al. (2023) summarized the effects of community-based resistance, balance, and multi-component exercise interventions on the parameters of functional ability (e.g., lower extremities muscle strength, balance performance and mobility) in a systematic review. Authors included RCTs that investigated the following interventions: lower extremity strengthening, balance and multi-component exercise interventions on ambulatory community-dwelling adults aged ≥ 65 years. Results stated that lower extremity strengthening exercises revealed significant effects on the strength of lower extremity, balance outcomes and mobility. Balance exercises reduced the rate of injurious falls, improve static, dynamic and reactive balance, lower extremity strength as well as mobility. Multi-component exercise training reduced medically attended injurious falls and fallers, incidence of falls, fall-related emergency department visits as well as improved mobility, balance, and lower extremity strength. Authors concluded that physical exercises are effective in improving the components of balance, lower extremity strength, mobility, and reducing falls and fall-related injuries.

Colón-Emeric et al. (2024) completed a review of risk assessment and prevention of falls in older community-dwelling adults. Falls can result in substantial morbidity, mortality, and health care expenditures, and result from age-related physiologic changes compounded by multiple intrinsic and extrinsic risk factors. Major modifiable risk factors among community-dwelling older adults include gait and balance disorders, orthostatic hypotension, sensory impairment, medications, and environmental hazards. Guidelines recommend that individuals who report a fall in the prior year, have concerns about falling, or have gait speed less than 0.8 to 1 m/s should receive fall prevention interventions. In a meta-analysis of 59 RCTs in average-risk to high-risk populations, exercise interventions to reduce falls were associated with 655 falls per 1,000 patient-years in intervention groups vs 850 falls per 1,000 patient-years in non-exercise control groups, with most trials assessing balance and functional exercises. In a meta-analysis of 43 RCTs of interventions that systematically assessed and addressed multiple risk factors among individuals at high risk, multifactorial interventions were associated with 1,784 falls per 1,000 patient-years in intervention groups vs 2,317 falls per 1,000 patient-years in control groups without a significant difference in the number of individuals who fell. Other interventions associated with decreased falls in meta-analysis of RCTs and quasi-randomized trials include surgery to remove cataracts (8 studies with 1,834 patients), multicomponent podiatry interventions (3 studies with 1,358 patients), and environmental modifications for individuals at high risk (12 studies with 5,293 patients). Meta-analysis of RCTs of programs to stop medications associated with falls have not found a significant reduction, although deprescribing is a component of many successful multifactorial interventions. Authors concluded that more than 25% of older adults fall each year, and falls are the leading cause of injury-related death in persons aged 65 years or older. Functional exercises to improve leg strength and balance are recommended for fall prevention in average-risk to high-risk populations. Multifactorial risk reduction based on a systematic clinical assessment for modifiable risk factors may reduce fall rates among those at high risk.

Kirk-Sanchez et al. (2025) synthesized the evidence for physical therapy management of fall risk in community-dwelling older adults. This guideline strongly recommends that PTs and PTAs participate in multifactorial management programs addressing falls and fall risk for older adults. A multifactorial approach to fall risk management in older adults is supported by robust evidence (Evidence Quality/Level: I, Recommendation Strength: Strong). A multicomponent exercise program that incorporates balance training and other modes of exercise, such as resistance training or Tai Chi, is strongly recommended for reducing the risk and rate of falls (Evidence Quality/Level: I, Recommendation Strength: Strong). The guideline strongly recommends that balance training interventions be progressive and sufficiently challenging, involve limb and whole-body movements, changes in base of support, and reduced upper limb support (Evidence Quality/Level: I, Recommendation Strength: Strong). Additionally, Tai Chi is strongly recommended for older adults in particular those at lower fall risk (Evidence Quality/Level: I, Recommendation Strength: Strong). The guideline makes a strong recommendation for environmental assessments and necessary modifications for older adults at higher risk (Evidence Quality/Level: I, Recommendation Strength: Strong). Providing or prescribing resistance training ALONE to reduce fall risk and rate is not recommended, as it offers limited benefits (Evidence Quality/Level: II, Recommendation Strength: Moderate).

This guideline also provides several weak recommendations. While reactive step (perturbation) training is a potential component of balance training, the evidence supporting this intervention is mixed (Evidence Quality/Level: II, Recommendation Strength: Weak) in comparison to strong evidence for volitional step training or balance training. Additionally, this guideline recommends a comprehensive approach that combines tailored education with individualized exercise intervention, addressing identified risk factors, home hazards, strength and balance impairments, and referral to other providers when necessary, especially for factors outside the scope of physical therapy (Evidence Quality/Level: V, Recommendation Strength: Expert Opinion). The recommendation for this comprehensive approach is predicated upon expert opinion, but each individual component is recommended based upon robust evidence. These recommendations collectively guide physical therapists in adopting evidence-based practices to manage fall risk, while also highlighting the limitations and areas requiring further research.

Wang and Kim (2025) compared the effectiveness of the Otago Exercise Program (OEP) in fall prevention between generally healthy older adults and those with compromised health conditions, assessing which group benefits more from the intervention. This meta-analysis evaluated the effectiveness of the OEP in fall prevention among general older adults and older adults with compromised health, including individuals at high risk of falls, cognitive impairment, musculoskeletal disorders, or frailty syndrome. Fifteen studies with 1,278 participants were included. The OEP significantly improved balance, gait, and lower limb strength in general older adults. The effects were more pronounced in older adults

with compromised health, particularly in gait, particularly in gait and lower limb strength. However, the OEP did not significantly improve physical function or upper limb strength in either group. Authors concluded that the OEP effectively improves balance, gait, and lower limb strength, especially in older adults with compromised health. However, it does not significantly impact physical function or upper limb strength. This study has limitations, including potential bias, study heterogeneity, and variations in interventions, which may affect result reliability. A cautious interpretation is needed, and future research should focus on analyzing diverse populations and ensuring adequately sized samples to enhance the reliability of the findings.

The U.S. Department of Health and Human Services (DHHS) recommends that older adults engage in regular exercise. Specifically, exercise should include muscle-strengthening activities twice per week, as well as aerobic physical activity that is either of moderate intensity for a minimum of 2 ½ total hours per week or of vigorous intensity for at least 1 ¼ total hours per week. Those identified as at risk for falling (e.g., recent fall or ambulatory difficulties), should also include balance training at least 3 days per week.

The CDC recommends 3 categories of interventions for fall risk prevention:

1. Exercise
2. Home modifications to reduce hazards
3. Multi-faceted approach (including medical screening for medications used and impaired vision)

USPSTF Recommendation Levels:

Grade	Definition	Suggestions for Practice
A	The USPSTF <i>recommends</i> the service. There is high certainty that the net benefit is substantial.	Offer or provide this service.
B	The USPSTF <i>recommends</i> the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.	Offer or provide this service.
C	The USPSTF recommends <i>selectively</i> offering or providing this service based on professional judgment and patient preferences. There is at least moderate certainty that the net benefit is small.	Offer or provide this service for selected patients depending on circumstances.
D	The USPSTF recommends <i>against</i> the service. There is moderate or high certainty of either no net benefit or that the harms outweigh the benefits.	Discourage the use of this service.

Grade	Definition	Suggestions for Practice
I	The USPSTF concludes that the current evidence is <i>insufficient</i> to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.	If the service is offered, patients should understand the uncertainty about the balance of benefits and harms.

A comprehensive review of the USPSTF rating process can be found in the ASH policy *Preventive Care Guidelines* (CPG 140 – S) or at the USPSTF website: <http://www.uspreventiveservicestaskforce.org/Page/Name/grade-definitions>.

USPSTF Recommendations:

Falls Prevention in Community-Dwelling Older Adults: Interventions (2024)

Grade B Recommendation: The USPSTF recommends exercise interventions to prevent falls in community-dwelling adults 65 years or older who are at increased risk for falls.

Grade C Recommendation: The USPSTF recommends that clinicians individualize the decision to offer multifactorial interventions to prevent falls to community-dwelling adults 65 years or older who are at increased risk for falls. Existing evidence indicates that the overall net benefit of routinely offering multifactorial interventions to prevent falls is small. When determining whether this service is appropriate for an individual, patients and clinicians should consider the balance of benefits and harms based on the circumstances of prior falls, presence of comorbid medical conditions, and the patient's values and preferences.

PRACTITIONER SCOPE AND TRAINING

Practitioners should practice only in the areas in which they are competent based on their education, training, and experience. Levels of education, experience, and proficiency may vary among individual practitioners. It is ethically and legally incumbent on a practitioner to determine where they have the knowledge and skills necessary to perform such services and whether the services are within their scope of practice.

It is best practice for the practitioner to appropriately render services to a patient only if they are trained, equally skilled, and adequately competent to deliver a service compared to others trained to perform the same procedure. If the service would be most competently delivered by another health care practitioner who has more skill and training, it would be best practice to refer the patient to the more expert practitioner.

Best practice can be defined as a clinical, scientific, or professional technique, method, or process that is typically evidence-based and consensus driven and is recognized by a majority of professionals in a particular field as more effective at delivering a particular

outcome than any other practice (Joint Commission International Accreditation Standards for Hospitals, 2020).

Depending on the practitioner's scope of practice, training, and experience, a patient's condition and/or symptoms during examination or the course of treatment may indicate the need for referral to another practitioner or even emergency care. In such cases it is essential for the practitioner to refer the patient for appropriate co-management (e.g., to their primary care physician) or if immediate emergency care is warranted, to contact 911 as appropriate. See the *Managing Medical Emergencies (CPG 159 – S)* clinical practice guideline for information.

Practitioner Resources

Publicly available resources can be found at:

- Centers for Disease Control & Prevention (CDC): *STEADI (Stopping Elderly Accidents, Deaths & Injuries) Tool Kit for Your Medical Practice*
<http://www.cdc.gov/steady/index.html>
- iGeriatrics App. American Geriatrics Society – smart phone application.
<https://play.google.com/store/search?q=iGeriatrics> or
<https://apps.apple.com/us/app/igeriatrics/id365560773>

Member Resources

Publicly available resources can be found at:

- Centers for Disease Control & Prevention: *Patient & Caregiver Resources*.
https://www.cdc.gov/steady/patient-resources/?CDC_AAref_Val=https://www.cdc.gov/steady/patient.html
- Centers for Disease Control & Prevention: *Check for Safety: A Home Fall Prevention Checklist for Older Adults*. <https://www.cdc.gov/steady/pdf/STEADI-Brochure-CheckForSafety-508.pdf>
- National Institutes for Health – *Real-Life Benefits of Exercise and Physical Activity*
<https://www.nia.nih.gov/health/real-life-benefits-exercise-and-physical-activity>
- iGeriatrics App. American Geriatrics Society – smart phone application.
<https://play.google.com/store/search?q=iGeriatrics> or
<https://apps.apple.com/us/app/igeriatrics/id365560773>

References

Bischoff-Ferrari HA, Dawson-Hughes B, Orav EJ, et al. Monthly High-Dose Vitamin D Treatment for the Prevention of Functional Decline: A Randomized Clinical Trial. *JAMA Intern Med*. 2016;176(2):175-183. doi:10.1001/jamainternmed.2015.7148

- 1 Bolland MJ, Grey A, Gamble GD, Reid IR. Vitamin D supplementation and falls: a trial
2 sequential meta-analysis. *Lancet Diabetes Endocrinol.* 2014;2(7):573-580.
3 doi:10.1016/S2213-8587(14)70068-3
4
- 5 Centers for Disease Control and Prevention: STEADI (Stopping Elderly Accidents, Deaths
6 & Injuries) Retrieved March 8, 2026 from <https://www.cdc.gov/steady/index.html>
7
- 8 Center for Disease Control and Prevention. Older Adult Fall Prevention. Retrieved on
9 March 8, 2026 from <https://www.cdc.gov/falls/index.html>
10
- 11 Chiu HL, Yeh TT, Lo YT, Liang PJ, Lee SC. The effects of the Otago Exercise Programme
12 on actual and perceived balance in older adults: A meta-analysis. *PLoS One.*
13 2021;16(8):e0255780. Published 2021 Aug 6. doi:10.1371/journal.pone.0255780
14
- 15 Colón-Emeric CS, McDermott CL, Lee DS, Berry SD. Risk Assessment and Prevention of
16 Falls in Older Community-Dwelling Adults: A Review. *JAMA.* 2024;331(16):1397-
17 1406
18
- 19 Guirguis-Blake JM, Michael YL, Perdue LA, Coppola EL, Beil TL, Thompson
20 JH. Interventions to Prevent Falls in Community-Dwelling Older Adults: A Systematic
21 Review for the U.S. Preventive Services Task Force. Rockville (MD): Agency for
22 Healthcare Research and Quality (US); April 2018. Available from
23 <https://www.ncbi.nlm.nih.gov/books/NBK525700/>
24
- 25 Hauer K, Lamb SE, Jorstad EC, Todd C, Becker C; PROFANE-Group. Systematic review
26 of definitions and methods of measuring falls in randomised controlled fall prevention
27 trials. *Age Ageing.* 2006;35(1):5-10. doi:10.1093/ageing/afi218
28
- 29 Joint Commission International. Joint Commission International Accreditation Standards
30 for Hospitals. 7th ed. Joint Commission Resources; 2020
31
- 32 Lamb SE, Jørstad-Stein EC, Hauer K, Becker C; Prevention of Falls Network Europe and
33 Outcomes Consensus Group. Development of a common outcome data set for fall
34 injury prevention trials: the Prevention of Falls Network Europe consensus. *J Am*
35 *Geriatr Soc.* 2005;53(9):1618-1622. doi:10.1111/j.1532-5415.2005.53455.x
36
- 37 Kirk-Sanchez N, McDonough C, Avin KG, Blackwood J, Hanke TA. Physical Therapy
38 Management of Fall Risk in Community-Dwelling Older Adults: An Evidence-Based
39 Clinical Practice Guideline From the American Physical Therapy Association -
40 Geriatrics. *J Geriatr Phys Ther.* 2025;48(2):62-87.
41 doi:10.1519/JPT.0000000000000454

- 1 Michael YL, Whitlock EP, Lin JS, et al. Primary care-relevant interventions to prevent
2 falling in older adults: a systematic evidence review for the U.S. Preventive Services
3 Task Force. *Ann Intern Med*. 2010;153(12):815-825. doi:10.7326/0003-4819-153-12-
4 201012210-00008
- 5
- 6 Moreland B, Kakara R, Henry A. Trends in Nonfatal Falls and Fall-Related Injuries Among
7 Adults Aged ≥ 65 Years - United States, 2012-2018. *MMWR Morb Mortal Wkly Rep*.
8 2020;69(27):875-881. Published 2020 Jul 10. doi:10.15585/mmwr.mm6927a5
- 9
- 10 National Institute on Aging. Prevent falls and fractures. 2022. Retrieved on May 5, 2026
11 from <https://www.nia.nih.gov/health/prevent-falls-and-fractures>
- 12
- 13 Sadaqa M, Németh Z, Makai A, Prémusz V, Hock M. Effectiveness of exercise
14 interventions on fall prevention in ambulatory community-dwelling older adults: a
15 systematic review with narrative synthesis. *Front Public Health*. 2023 Aug
16 3;11:1209319
- 17
- 18 Stevens JA, Corso PS, Finkelstein EA, Miller TR. The costs of fatal and non-fatal falls
19 among older adults. *Inj Prev*. 2006;12(5):290-295. doi:10.1136/ip.2005.011015
- 20
- 21 Wang C, Kim SM. The Otago Exercise Program's effect on fall prevention: a systematic
22 review and meta-analysis. *Front Public Health*. 2025;13:1522952. Published 2025 Jun
23 3. doi:10.3389/fpubh.2025.1522952
- 24
- 25 USPSTF Guide: Fall Prevention in Community-Dwelling Older Adults; June 2024.
26 Retrieved March 8, 2026 from:
27 [https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/falls-](https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/falls-prevention-community-dwelling-older-adults-interventions#fullrecommendationstart)
28 [prevention-community-dwelling-older-adults-interventions#fullrecommendationstart](https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/falls-prevention-community-dwelling-older-adults-interventions#fullrecommendationstart)