

Keys to Better Balance: Instructor Resource

Criteria Check List for Fall Prevention Community Exercise Classes

A review of evidence-based fall prevention exercise strategies shows **the following criteria are necessary to be effective in preventing falls in community-dwelling older adults:**

** To be used in conjunction with "Keys to Better Balance: Community and Instructor Resource and Keys to Better Balance: Community Resource" documents.*

- **Multiple-component exercise:** Exercise interventions which incorporate many elements including strength, balance, power, and postural control. Class should include a standardized routine including warm-up, balance, and strength exercises with progression of difficulty of the exercises.
- **Balance** should be the most important mode of exercise. Balance exercise should include static, dynamic, dynamic gait training, dual-task training. Repetition and progression to more challenging exercises over the course of the intervention is vital. Support can be progressed from two-handed support, to one-hand support, to no hands.
 - **Static balance activities:** Exercises that challenge the center of mass/gravity (reaching and weight shifting) while feet are fixed, progressing from wider base of support to narrower base of support to single leg stance. Sensory challenges can be added including standing on unstable surfaces or standing with eyes closed.
 - **Dynamic balance activities:** Exercises that challenge to center of mass/gravity while the feet are moving. These activities may include reaching, stepping, stair-stepping, and lateral movements. Many Tai Chi movements and dance incorporate dynamic balance activities.
 - **Dynamic gait training:** Activities using dance steps, turns, figure-8's, directional changes, changes in speed, obstacle courses, and walking in various directions (forward, backward, sideways and diagonals).
 - **Dual-task training:** Activities which involve a primary task while performing a secondary task. This requires the older adult to focus attention on two things at once while maintaining balance and performance. Examples include walking and counting or walking while carrying a full cup of liquid. Tai Chi and dance often contain dual-task training where balance must be maintained while remembering movement patterns.
- **Strength** is an important exercise mode for fall prevention *but* is not effective for fall prevention without balance exercise component. Important aspects:
 - Lower extremity and postural muscle with progression as able
 - Moderate- to high-intensity
 - Minimal upper extremity support
- **Dosage:** Research shows that to be effective to improve balance, exercise dose is 50 hours of moderate to high balance challenge over a 6-month time period and ongoing. This can be broken down to one-hour classes two times per week or through home exercise to reach two hours per week of exercise.

*Walking should **not** be major part of a fall prevention class. Walking is beneficial for its cardiovascular effects but does not reduce fall risk.*



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References

CDC Compendium of Effective Fall Interventions: What Works for Community-Dwelling Older Adults, 3rd Edition. (2015). Retrieved from:
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For Video examples of the Balance Exercise components visit our YouTube channel:
<https://www.youtube.com/playlist?list=PLI4xB4BgGBoVfpjk8kVBx93KXAX3MmTir>

