



Linda's T'ai Chi Weekly Handout August 14, 2022

## Improving Balance

**As written for the NY Times**

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Len Kaplan began having difficulty walking in a straight line when he was in his 50s. Scoliosis combined with compressed discs in his back were causing his balance to deteriorate.

“Physical therapy, regular exercises, just wasn’t getting the job done. I needed something different,” Len, now 80, said.

Around that time Len and his wife, Ginny, took a cruise with twice-daily **Tai Chi** classes. Ginny, 77, said they loved Tai Chi — which consists of slow, controlled movements and deep breathing — so much they found a class in nearby Yorba Linda, Calif., when they returned home. The habit stuck.

Len and Ginny have now been taking **Tai Chi** and balance classes regularly for more than 15 years. Len is able to easily walk in a straight line and his balance has improved. Last September while visiting Greece, Len and Ginny decided to hike the nearly 100 steps to the top of the Acropolis. Up they went, over slippery, uneven steps with no hand rails. They made it to the top and were rewarded with ancient ruins and sweeping views of Athens below.

“At my age I know people who would go, ‘Oh no, I’ll stand at the bottom in the parking lot and take pictures, thank you,’” Ginny said, “but how fun is that?”

Balance training is an important but often-neglected skill, one that impacts both our longevity and our quality of life, beginning around age 40. A study in June by a Brazilian team found that 20 percent of the 1,700 older adults tested couldn’t balance on one leg for 10 seconds or more. And that inability to balance was associated with a twofold risk of death from any cause within 10 years.

If you have tried out the one-legged test (with a wall or chair nearby for safety) and didn't pass, don't panic. It's never too late to start working on balance training, even if you *can* pass the 10 second test, especially if you're over age 50. This doesn't have to mean handstands and acrobatics. In fact, you can start at home without any equipment.

### What the 10-Second Test Can (and Can't) Tell Us

Falls are the second leading cause of unintentional injury deaths worldwide, yet doctors don't have an easy way to check balance, like they do blood pressure or pulse. In this test, which can be done in less than a minute, the patient gets three attempts to do a 10-second one-legged stand on either leg.

The idea here was just to come up with a really simple test that might be an indication of a person's ability to balance," said Dr. Jonathan Myers, a professor at Stanford University, researcher at the Palo Alto VA Health Care System and an author of the balance study. He said the inability to perform this task was powerfully predictive of mortality. In the study, one in five people could not manage it.

"With age, strength and balance tend to decrease and that can result in frailty. Frailty is a really big thing now that the population is aging," Dr. Myers said.

Balance problems can be caused by a variety of factors, many of them age-related, said Dr. Lewis Lipsitz, a professor of medicine at Harvard University and the director of the Marcus Institute for Aging Research at Hebrew SeniorLife.

When your vision is affected by cataracts, or the nerve signals from your feet to your brain slow down, this makes it more difficult to balance. While it's impossible to prevent all types of age-related decline, you can counteract the impact on your balance through specialized training and building strength.

"There's a downward spiral of the people who don't go out, who don't walk, who don't exercise, who don't do balance training, and they become weaker and weaker. And muscle weakness is another important risk factor for falls," he said.

Researchers have previously connected balance and strength with mortality, finding that the ability to rise from the floor to a standing position, balance on one leg for 30 seconds with one eye closed and even walk at a brisk pace are all tied to longevity.

But no test is perfect. Dan Layne, who runs the Center for Balance, where Len and Ginny study Tai Chi, said the Brazilian paper caused a stir in his classes, which include balance and fall prevention. Many of his students, whose ages range from 30 to 105, tried it and failed. They approached him, worried.

"I've got a lot of people that can't balance for 10 seconds, but their balance control is fine. They're not falling and they're living long lives," Mr. Layne said. Even if your vision

is impaired, or your coordination is affected by arthritis, you can improve your balance — at any age.

“The body is very adaptive. And if one pathway doesn’t work to maintain your balance, by training other pathways in the body and the brain you can overcome some disabilities,” Dr. Lipsitz said.

### Balance-Enhancing Activities

Balance training goes hand-in-hand with strength training. The stronger the muscles in your legs, glutes, feet and core, the better your balance. You can improve your balance by taking **Tai Chi** or yoga classes, but weight training, dancing, rock climbing or aerobics classes are also excellent ways to work on your balance skills.

“Really any type of exercise seems to help with balance and fall risk,” said Dr. Avril Mansfield, a senior scientist at KITE-Toronto Rehabilitation Institute, who specializes in movement science.

But some forms of exercise are better than others. If your only movement is walking on a smooth surface, with no side-to-side movement, it’s not going to significantly improve your balance, said Dr. Rachael Seidler, a professor in the Department of Applied Physiology and Kinesiology at the University of Florida.

If you really want to improve your balance, Dr. Seidler said, you’ll get the most benefit focusing on several specific exercises.

### Training Your Balance at Home

So how do you get started? Fortunately, most balance training doesn’t have to require any special equipment, and you can start at home. As with any new exercise program, be sure to talk to your physician first, and have a chair nearby to grab onto if you feel unsteady.

### End of Article

I hope you enjoyed the article and found some useful information. To practice building your strength in the legs and improving balance, I taught a simple but effective at-home exercise. Use a chair to stabilize you until you are sure of your balance. Hold the back of the chair with one hand as you lift your foot and leg off the ground slightly and pump. Do each side about 10 times. When you feel confident in your balance, you can release your hand and do the exercise without holding on. Plus, any of the Qigong routines you have learned are good to practice at home.

Peace, Linda