# DISCOVER THE SECRETS TO IMPROVE YOUR BALANCE AND PREVENT FALLING



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# 5 most common reasons people fall

Have you ever lost your footing on wet or icy pavement causing you to fling your arms out and your heart to race?

Or have you ever gotten up in middle of the night stumbling in the dark to the bathroom only to catch yourself from falling by grabbing the furniture?

If you have, then you know how frightening losing your balance can be. Ordinarily we take our balance for granted, but it is an important and vital part of our daily life.

Each year one in three adults aged 65 and older fall and increase their risk of early death, according to statistics from the Centers for Disease Control and Prevention (CDC). When a toddler or child falls, he or she usually shakes it off and keeps moving. But when an older adult falls, there are often consequences that may lead to a downward health spiral. Falls and fall-related injuries, such as a hip fracture, could limit your activities, knock confidence, and undermine independence.

### Here are the most common reasons seniors fall:

- Our vision may decrease which can lead to falls due to not seeing clearly
- Our hips and legs can become weaker making it harder to walk and lift our feet
- 3. We can develop poor posture making it harder to stand erect
- It takes longer to react when something is in our way causing us to fall
- Many drugs interact with each other causing dizziness or decreased balance

In our practice, fear of falling is one of the top fears expressed by our patients. It can be very valid and benefits from early attention to address the potential problem. Balance exercises, along with certain strength exercises, can help prevent falls by improving your ability to control and maintain your body's position, whether you are moving or still.

### The Secret of Good Balance: Know the 3 Essential Elements

Without your having to think about it, your body does an astonishing balancing act every day. And I am not just talking about your busy schedule! When we rise from a chair, climb stairs, and walk outside on uneven terrain there is cooperation between the brain, nervous system, muscles, and our joints that help keep us from falling.

#### How does our balance system work?

Visual cues from our eyes tell us all sorts of information about our environment and where we are in space. Our eyes help us see and prepare for potential dangers and obstacles. This is why it can be difficult to keep your balance when it is dark around you. The inner ear, sometimes referred to a the vestibular system,

provides important information on the position of our head and its movement in space. This is how you know you are "tilting" sideways. (It can get overwhelmed, making you feel dizzy or nauseous - think roller coaster!)

**Internal spatial orientation** is a built-in mechanism that tells your nervous system where your arms and legs are positioned in space by sensing pressure changes in the joints. For example, if you close your eyes and then lift your arm and wave it above your head, you know where your arm is because of this automatic feedback.

When all these systems are working together we can stay active and independent, preventing falls, and improving our balance.

# 30 Second Test To Assess Your Balance

Today you'll discover a simple test, so you can determine whether your balance is in top shape or if you need to take action to improve it. In addition, you'll also get an easy yet effective exercise that you can practice anytime anywhere to enhance your balance.

#### Single Leg Standing Balance Test

You may want to have someone nearby to watch you as you try this.

- 1. Stand on a hard floor near a table or countertop for support.
- Bend one knee and lift the foot if you're left-handed, stand on your left leg and lift the right foot; do the opposite if you're right-handed. You don't need to lift it high, just enough to keep it off the floor.

- Now without holding onto anything slowly count the number of seconds you can hold that position without putting your foot back down.
- 4. Repeat the test 3 times, and then add up your total time and divide it by 3 to find your average balance time. (For example, if test 1 was 4 seconds, test 2 was 8 seconds, and test 3 was 6 seconds, you'd add up 4, 8, and 6 to get 18. Divide by 3, and your average balance time is 6 seconds.)
- You can try retaking this same test with your eyes closed for a greater challenge.

How long should you be able to stand on one leg?			
Eyes Open		Eyes Closed	
Age	Balance Time	Age	Balance Time
40-59	25-27 sec	40-59	15-20 sec
60-69	20-25 sec	60-69	9-12 sec
70-79	10-15 sec	70-79	7-8 sec
80	5-6 sec	80	4-5 sec

Not surprisingly, the chart shows that the number of seconds decreases with age. That's because as we get older, our eyesight tends to diminish, muscles tend to shrink, and our reaction time may be a bit slower. But there's good news, because...

You can improve your balance regardless of age!

A recent study found that periodically standing on one leg does in fact improve balance, prevent falls, and even improve independent living. So using this test as a daily exercise can be a simple start to making a big impact.

Balance is a very complex task that can be affected by lots of different things. (For example, medication, inner ear problems, visual problems, and blood pressure issues are some causes of balance problems.) In physical therapy, we concentrate on the role that bones, joints, muscles, and nerves play in having good balance.

If you have trouble doing this test, it is time to visit your physical therapist for a more comprehensive exam, and see your doctor for a full check up.

## Don't Be Resigned To Poor Balance

Poor balance is NOT like wrinkles or gray hair. You don't have to be resigned to poorer balance as you age. You can take action to improve and maintain it.

Though there are often many factors involved with decreased balance as we age, it is a skill that many of us can keep during our adult life. A lot of this decline is simply due to our inactivity. This can be improved with training.

Balance can begin to slowly diminish in the 40's (don't get depressed yet!), and so all middle aged adults need to add some sort of balance training to their routines. In terms of importance, it is right up there with cardio, strength, and flexibility.

Q: Have you ever wondered how a young gymnast can jump onto a 4-inch wide beam way up in the air and do a handstand or flip? Do you think any young woman could do that?

A: The answer is "no". Someone who does not practice this level of balance cannot perform these activities. They will fall off the beam and embarrass themselves for sure!

Balance exercises can help you maintain your balance and confidence at any age. This training will incorporate overall upper and lower body strengthening and endurance along with challenging your balance system daily with activities that require you to use the three systems mentioned above.

Oh...to be young again! Remember age is just a number.

#### How To Find The Best PT In Your Area For Balance Training

Successful Physical Therapy treatment for decreased balance involves three things:

- 1. Balance specific challenges
- 2. Strengthening and endurance exercises
- 3. Continuity of exercise after physical therapy

In 2013, researchers analyzed the results of 17 trials (involving 4,305 participants) that tested the effect of fall-prevention exercises on elders' risk of falls and fall-related injuries. Overall, programs not only reduced falls (by 37%), but also prevented injury including fractures when falls did occur (by 61%). Even in the case of severe falls, injuries were less common among those who exercised regularly (by 43%).

So how do you find the best PT in your area? When I answer this for people, this is what I recommend: "When you call in to schedule an appointment with your physical therapist, ask how much time you will spend with the PT and what they do when you are there. Also ask them what type of balance training equipment they have. The secretary will likely have to ask the PT. The more time and balance focused equipment the PT has for you the better your likelihood of successfully improving your balance."

Look for a facility that backs up its claim of balance training with the necessary equipment.

Technology, though sometimes overwhelming, can take your balance training to the next level. The Smart Balance Master is one example of an advanced balance testing and training device that can give you very objective measures of your balance and help train your balance just the way you need to. It will also give the therapist the ability to retest you over time so you can ensure you are making progress.

You also want a facility that will not abandon you as soon as your insurance stops paying. A facility that has a "step down" or gym transition program to make sure you can continue your exercises correctly after therapy is a really good bet. The more post-therapy exercise opportunity they offer, the better.

Q: How long will I have to keep doing exercise?

A: Think of exercise like a diet. If you go on a diet and lose weight, how long do you have to diet to keep the weight off? You may not need a perfect or strict diet forever but if you return to your old eating habits you will undoubtedly return to your old weight. Exercise is the same. Once you reach your goals you may not need to keep up the same level of intensity in your workouts, but if you stop exercising your problems will return.

# 10 Balance Safety Tips To Prevent Falls

Here are some simple tips for the safest way to balance at home:

- Be aware of your posture. Try to maintain your weight over your ankles.
- 2. Avoid fast movements including quick turns or changes in position.
- Always get up slowly when rising from a chair and make sure you are steady before starting to walk.

- Don't shuffle as you walk, rather lift your feet with each step to prevent tripping over uneven surfaces.
- Try to wear closed shoes or slippers (no open back) at all times to avoid tripping on your footwear.
- 6. Remove any loose rugs (or tape them down).
- 7. Keep floors clear of clutter.
- Place frequently used items in easy to reach places (If you frequently use certain dishes make sure they are on easy to reach shelves).
- It is best to have a light switch or lamp at the entrance to every room.
- Caution: If you are taking medications, ask your doctor if there are any side effects or interactions which may cause light-headedness or decreased balance

### The Best Place to Train Your Balance

You can do *balance exercises* almost *anytime, anywhere, and as often as you like*, as long as you are in a safe environment. It is a good idea to have something sturdy, like a table or counter, nearby to hold on to in case you become unsteady.

Balance exercises overlap with lower body strength exercises, which can also improve your balance. Do the strength exercises two or more days per week, but not on any two days in a row.

Well, like anything else in life it is about practice!

There is a saying you may have heard slightly different: "Practice makes PER...MANENT". If you are practicing something wrong, it will be permanently wrong.

Are you practicing sitting in your recliner? Come on, be honest. If you are, then you will certainly get better at sitting in your recliner. Start practicing balance exercises!

Don't Forget a Healthy Balance of Diet and Exercise Nearly any activity that keeps you on your feet and moving will help preserve your body's balancing system.

Beyond just balance training, particular exercises that improve endurance, muscle and bone strength, and flexibility can help prevent falls and related injuries.

 Exercise using weights or resistance bands force your muscles and bones to develop strength that will help support your joints and improve your stability.

- Stretching your lower limbs is a great way to improve motion and flexibility and avoid tight muscles that can cause an awkward walking pattern and lead to stumbling.
- 3. Tai chi, a gentle form of ancient Chinese martial arts, has been shown to improve balance, flexibility, cardiorespiratory fitness, muscular strength, and endurance. Slow, steady motions of the head, eyes, body, and limbs are performed in coordination with breathing. Don't hesitate to check out places near you that may offer classes!
- Foods rich in a substance called *resveratrol* are shown to preserve the cells of the nervous system and markedly improve balance and coordination.5 Red grapes, blueberries, cranberries, and peanuts are rich in resveratrol.

Benefits of multi-component health programs include:

- Faster reaction time will help you avoid obstacles and keep yourself upright if you start to fall by putting out an arm quickly to grab something stable.
- Improved coordination can help prevent falls.
- Stronger muscles and bones can buffer the impact of a fall and are more resistant to fractures.
- Better brain function. Regular exercise helps maintain brain function with age. Clearer thinking may help you avoid situations that increase fall risk.

Efforts to prevent falls are best started early rather than late in life. Even so, you are never too old or too frail to exercise. There are always exercise routines that can be put together to fit your needs and ability.

Contact a physical therapist to help design an appropriate exercise program.



Have a question? We're here to help! Call us at 570-208-2787.

Office Locations: Carbondale | Scranton | Pittston | Kingston | Nanticoke