

Balance

*“Life is like riding a bicycle.
To keep your balance, you
must keep moving.”*

—Albert Einstein





Balance

It SEEMS LIKE IT WAS YESTERDAY—TINY PEDALS CHURNING, BODY WEIGHT GINGERLY SHIFTING FROM SIDE TO SIDE LITTLE NERVOUS SHOULDERS BOUNCING UP AND DOWN—ALL THE WHILE MY PARENTAL HAND SECURELY HOLDING THE BACK OF THE SEAT. I remember it well—teaching my son, Joel, and my daughter, Brooke, how to ride a bicycle. Each lesson was a wonderful experience and significant triumph for my kids (and for me!). I’m sure many of you can remember this significant moment in your own life.

We owe this memory all to persistence, patience, and most importantly, learning how to balance. Without balance, we may have wanted to—even tried to—but ultimately would not have been able to ride that bike! Because it’s been years since most of us learned how to ride a bike, we often take this simple movement and our sense of balance for granted. We rarely take time to think about how difficult it was to learn a new movement—let alone how important a strong sense of balance is to the quality and enjoyment of our lives.



In this first chapter, we will look closely at our first, most foundational simple move: Balance. Chapter 1 explores:

- 1 Different types of balance
- 2 Why balance is so important
- 3 How aging and inactivity impacts your balance
- 4 How to test your balance
- 5 Simple moves you can do to improve your balance
- 6 Recommended balance programs, tools and more

Brian: From “Spaz-im” To “Stud”— The Power Of Balance Training

Brian was a middle-aged truck driver who found himself in the doctor’s office with significant pain and discomfort from an injured shoulder and wrist. Brian had injured himself when he fell while getting out of his truck, landing directly on his right arm and shoulder.

His family physician, Doctor James, listened as Brian shared what happened: “Doc, I don’t know what’s wrong with me. I just can’t seem to find my footing! I keep stumbling and slipping. It started with a few trips, then a couple of spills, but I was always able to catch myself before really getting hurt. But this time, I just couldn’t stop myself from falling right on the pavement—SMACK!” Doctor James looked at Brian’s shoulder and wrist, and then performed some ear and eye examinations and other assessments. After ruling out inner ear and vision problems, Doctor James asked Brian to do some simple movement tests. After completing the tests, Doctor James asked Brian what his exercise and activity habits had been over the last few years. Brian replied: “Well doc, I just don’t have the ability to exercise with my job. I am on the road all the time—I usually don’t roll into a town until late at night and then I’m up early the next morning. Makes it tough to do any kind of exercise.”

Doctor James asked, “When is the last time you exercised?”

“Well, I used to play softball on a regular basis, but it’s been quite a while—maybe two or three years,” Brian said. “Come to think of it, that’s when I started noticing I couldn’t hit very well and kept stumbling when running around the bases.”

Doctor James smiled and said: “Brian, I believe your slipping and falling challenge is primarily due to a weakening of your balance systems.”

“My what?!” shouted Brian.

“You see, your ability to balance your body—whether you are standing still or moving—is dependent upon your inner ear, vision and the intricate communication system between your brain, nerves, joints and muscles. If this communication system isn’t used enough, it gets weak and the signals don’t work as well—nor does your body respond as quickly when you need it to. Because you are sitting the majority of the day while driving, your muscles and joints have become weaker, and your communication system between your nervous system, brain and body has become sluggish and slower,” noted Doctor James.

“Is it something I can fix?” asked Brian. Doctor James put his hand on Brian’s shoulder, smiled and said, “Yes, absolutely it is something you can fix. You can retrain your communication system to work automatically—the way it used to when you were younger and active. I am going to give you some simple movements you can use on a daily basis to retrain your body and your brain to work together to help improve your balance.”

Doctor James treated Brian for his dislocated shoulder and sprained wrist, and then prescribed some simple moves to help him improve his balance and strength.

Three months later, Brian’s shoulder and wrist were completely healed and he had faithfully been doing his simple moves to strengthen his balance.

Brian had made the time to do his simple moves outside of his truck at every rest stop on road trips. Not only did Brian find his footing, he felt stronger and more confident again, and even joined a softball league that played twice a week! (Oh, and by the way, Brian led that team in homeruns last season!)



Balance

What Is Balance?

The dictionary defines balance as “a physical equilibrium or stability produced by even distribution of weight on each side of the vertical axis.” Whew! That’s a mouthful! While it sounds fancy, this definition is a bit limited and too technical-sounding for my taste. I prefer to view balance as one’s ability to maintain a center of gravity.

Our body will constantly try to find a “center” or equilibrium at all times, whether we are standing still or moving. There’s an intricate interconnection between the brain, inner ear, nervous system and your muscles, ligaments and tendons—and they’re all working together in perfect harmony to help your body stay upright.

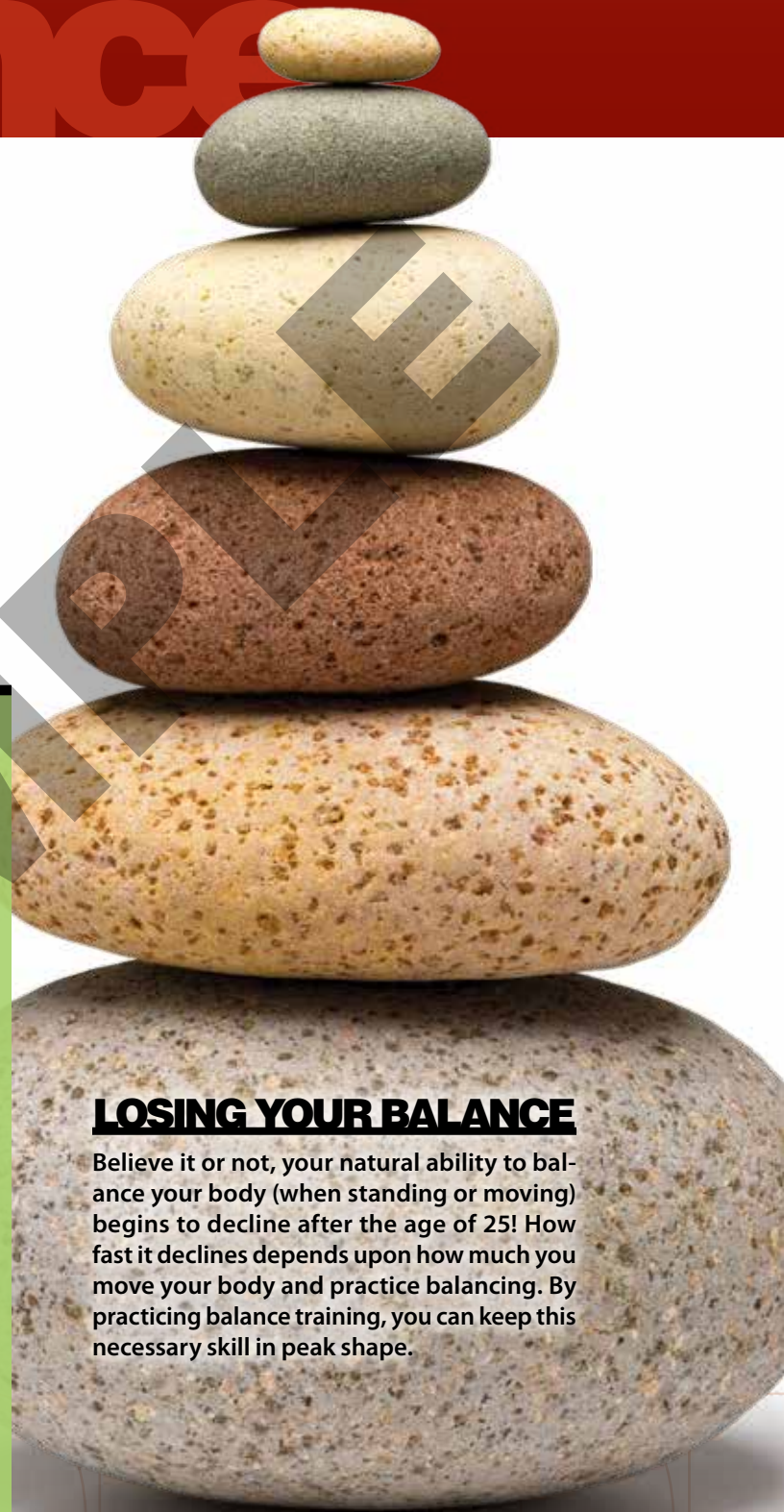
BRAIN TRAIN

The simple skill of balancing your body when standing on one foot, climbing out of a truck, or even walking is dependent upon an intricate communication system between your brain, nervous system, muscles, ligaments and tendons. It’s called “proprioception” and is your body’s unconscious ability to interpret messages about the position of your body and movement. This amazing ability allows you to sense which muscles to activate and contract to achieve a desired motion or position—like raising your arm to scratch your head—without even thinking about it. Unfortunately, if we don’t actively use this system, it becomes weaker and slower, and movement becomes more difficult.

By practicing balance training, movement patterns and skills (like riding a bike or driving a car) that once seemed daunting will become simple and automatic, requiring little thought to execute. By training your balance, you can improve proprioception, coordination, strength, agility, and master more complex movements, (think of an athlete catching a ball with one foot in the air, one on the ground and the rest of his/her body parallel to the field). Balance is the foundation to all human movement. Your ability to balance your body impacts all of your daily activity as well as your ability to perform more complex movements.

LOSING YOUR BALANCE

Believe it or not, your natural ability to balance your body (when standing or moving) begins to decline after the age of 25! How fast it declines depends upon how much you move your body and practice balancing. By practicing balance training, you can keep this necessary skill in peak shape.



Two Types Of Balance

STATIC BALANCE. Your ability to maintain your center of gravity in a non-moving position, such as sitting upright on the edge of your chair or standing in line, is highly dependent on strong stabilizing structures in your body, including your ligaments, tendons and muscles.

BENEFIT ► The number one benefit to strong static balance is an ability to prevent falling when in a non-moving position—without it you wouldn't be able to sit upright, stand, or shift your weight from one foot to the other. Another important benefit is a strong and healthy posture. By strengthening key stabilizing ligaments, tendons and muscles, you can improve your body posture and alignment significantly—helping you look stronger, younger and healthier.

DYNAMIC BALANCE. Your ability to maintain balance while moving, such as when you're walking, stepping over an object, jogging, jumping, cycling or dancing, is ultimately dependent upon your body working in sync with your brain, vestibular system (vision and inner ear), nervous system, muscles and ligaments.

BENEFIT ► A strong sense of dynamic balance enhances your ability to be successful in any movement activity—from the simplest, to the most complex. Dynamic balance allows you the ability to tie your shoes without falling, change direction when jumping over a puddle, and run and turn to catch a fly ball in the World Series.

How Inactivity And Aging Impacts Balance

Have you ever heard the phrase, “If you don't use it, you'll lose it?” Well, when it comes to your balance—this most certainly rings true. Research indicates that as we grow older and less active, our ability to balance our body—both when still or in motion—diminishes significantly.

According to the Centers for Disease Control and Prevention, one of every three Americans over the age of 65 falls each year. Elderly trips, falls and spills are primarily related to an inability and weakening of both static and dynamic balance.

According to Debra Rose, Professor of Kinesiology and Co-director of the Center for Successful Aging at California State University-Fullerton, “As we grow older, our balance and mobility becomes compromised, often for a variety of reasons: lack of lower body strength, altered sensory or motor function, certain medications or diagnoses, or a combination of these variables. When a fall occurs, it often creates such a fear that the older adult becomes even less active. Of course, this lack of physical activity creates even more mobility problems—making the likelihood of falls even more pronounced. It's a downward spiral.”

While a number of aging-related issues such as inner ear problems, vision challenges and mobility issues contribute to falls, the good news is that research indicates you can do something about this. Through simple moves and balance training, you can practice and significantly improve your balance skills to reduce the risk of falling—while bringing health, vitality and balance back to the body.

MUSCULAR BALANCE

Technically, there is also one additional aspect to balance that we need to consider—and that's muscular balance. Much of our physical health is dependent upon the health, strength, flexibility and balance of our muscles. Without a proper balance of strength, flexibility and endurance between opposing muscles, such as the front of the leg (quadriceps) and the back of the leg (hamstrings), we are very susceptible to injury, fatigue and weakness.

Muscular Balance = Equilibrium Between Muscles

This is absolutely crucial in avoiding short term and long-term injury and enhancing performance in all-static and dynamic movements.

It's time to improve your...

Balance



It's time to move...

Balance Move #1: Standing One-Leg Balance

Here's a great simple move to help you improve your balance (specifically your static balance). The best part is, you can do this while on break at work, in the office, or even when combing your hair!

▶ GET READY

You'll need a flat, non-slip surface to stand on and a timing device (such as a watch) to keep track of your time.



▶ GET SET

Standing tall and upright with your feet together, place your hands on your hips.

▶ GO

When you are ready, raise the right knee up, towards your waist-line, while maintaining balance on the left standing leg. Next, place your right foot near the inside of your left knee—and hold.

Next, raise up on the ball of the standing left foot and raise both arms out to the side, raising your arms and hands to shoulder level. Try to maintain balance for up to 30 seconds.

Repeat these steps, three times on each leg.





MAINTAIN PROPER FORM

Pointers To Remember:

- ✓ Keep your back straight with your chest up and shoulders relaxed, looking straight ahead
- ✓ Tighten your abdomen muscles throughout the movement
- ✓ Raise up and balance on the ball of the standing foot

Common Mistakes To Avoid:

- ✓ Locking knee of standing leg
- ✓ Looking down
- ✓ Holding breath

VARIATIONS

Beginners:

- ✓ Perform move with assistance of a chair
- ✓ Don't raise knee as high (non-standing bent leg) or keep that foot slightly in contact with ground
- ✓ Perform move without raising arms out to the side
- ✓ Only slightly raise heel off the ground of standing leg, or perform move without raising up on ball of foot

Intermediate/Advanced:

- ✓ Perform move while standing on a pillow, balance board, BOSU or air disc
- ✓ Place your hands over your head
- ✓ Raise knee higher (non-standing leg)
- ✓ Open your hip and rotate your knee out to the side, then continue to rotate hip, moving bent knee from front to side, throughout movement
- ✓ Close eyes

It's time to improve your...

Balance

Now, try this move...

Balance Move #2: Moving Balance—Walk The Line

Here's a great simple move to help you improve your overall balance (especially your dynamic balance), and one you can also perform throughout your work day—especially when you are walking from one area to another.

▶ GET READY

All you'll need is a flat, non-slip surface to walk on.

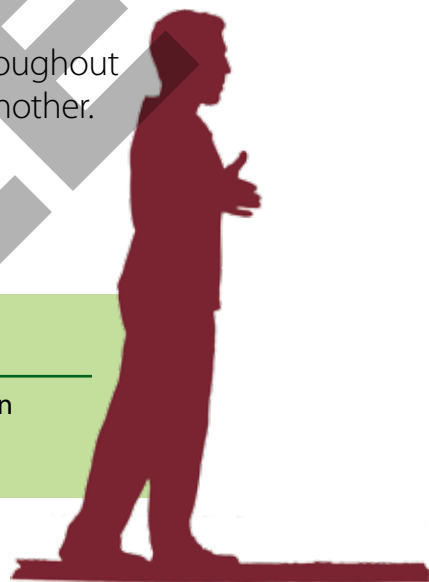
▶ GET SET

Standing tall and upright, place one foot in front of the other, heel to toe—then raise your hands and arms out to the side, at shoulder level.

▶ GO

1. When you are ready, lean slightly forward and raise the back foot behind you—slightly off the ground—extending your leg and tightening your buttocks.
2. Next, balance your weight and raise the non-standing leg and foot out to the side.
3. Bring your non-standing foot around and place it in front of the standing foot, heel to toe.

Repeat these steps, alternating one foot in front of the other up to 10 times for each foot.





MAINTAIN PROPER FORM

Pointers To Remember:

- ✓ Look straight ahead; keep chin parallel to the floor
- ✓ Keep shoulders down and relaxed
- ✓ Tighten buttocks when raising leg behind you and to the side
- ✓ Maintain a slight bend in knee of standing leg
- ✓ Perform as many 'walk the line' steps as you can

Common Mistakes To Avoid:

- ✓ Looking down
- ✓ Locking knee of standing leg
- ✓ Holding breath
- ✓ Leaning too far forward

VARIATIONS

Beginners:

- ✓ Perform move with assistance of a wall or long table by keeping your hand on that object at all times
- ✓ Keep non-standing foot in contact with the ground at all times
- ✓ Perform move less times

Intermediate/Advanced:

- ✓ Perform move barefoot
- ✓ Hold steps #1 and #2 for 5–10 seconds
- ✓ Place hands over head throughout movement
- ✓ Close eyes

It's time to test your...

Balance

Now it's time to test your balance! How balanced are you? Take a moment to find out...

Balance Test #1: The Stork Balance Test

This test measures your ability to stand in a non-moving position while standing on one leg and on the ball of your foot. This test is a good indicator of how you're doing when it comes to static balance.

▶ GET READY

You'll need a flat, non-slip surface to stand on, a stop watch or clock, a pencil or pen and this book to score your results. Also, be sure to remove your shoes before beginning your test.



▶ GET SET

Position your hands on your hips and position your non-supported foot against the inside knee of your standing leg. You can practice the test for approximately one minute.

▶ GO

When you are ready, raise your heel to balance on the ball of your foot. Begin timing as soon as your heel comes off the ground.

▶ FINISH

Stop timing when:

- ✓ Hands come off the hips
- ✓ The non-supported foot loses contact with the knee
- ✓ The heel of the supported foot touches the floor
- ✓ The supporting foot swivels, moves or hops in any direction





VARIATIONS

If you are having difficulty performing this test with your foot against your knee, simply raise your knee (non standing leg) up towards your chest (waist level, or as high as you comfortably can) and hold, applying all of the same instructions and criteria listed in the steps—except that your non supported foot will lose contact with the knee.

To make this test more difficult, close your eyes!

YOUR TIME

Capture the total time (in seconds) for your completed test and record it here (or record it on the chart on page 145):

TIME:

(You can repeat this test three times and take your best score).

YOUR SCORE

See how you did by comparing your score with the scores below. Circle how you scored.

RATING	SCORE (SECONDS)
Excellent	> 50
Good	40–50
Average	25–39
Fair	10–24
Poor	< 10

It's time to test your...

Balance

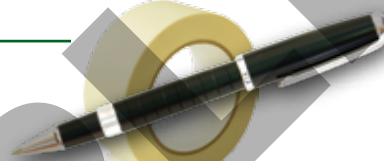
Here's another simple test you can take to see how dynamically balanced you are...

Balance Test #2: Walking The Line Test

This test measures your ability to move and balance your body at the same time while stepping with one foot in front of the other (heel to toe) on an imaginary or real line.

▶ GET READY

You'll need a flat non-slip surface, preferably a line or masking tape to represent a straight line, a pencil or pen and this book to score your results. This test can be performed with or without shoes.



▶ GET SET

Stand with both feet together in front of the beginning of a straight line (or imaginary).

▶ GO

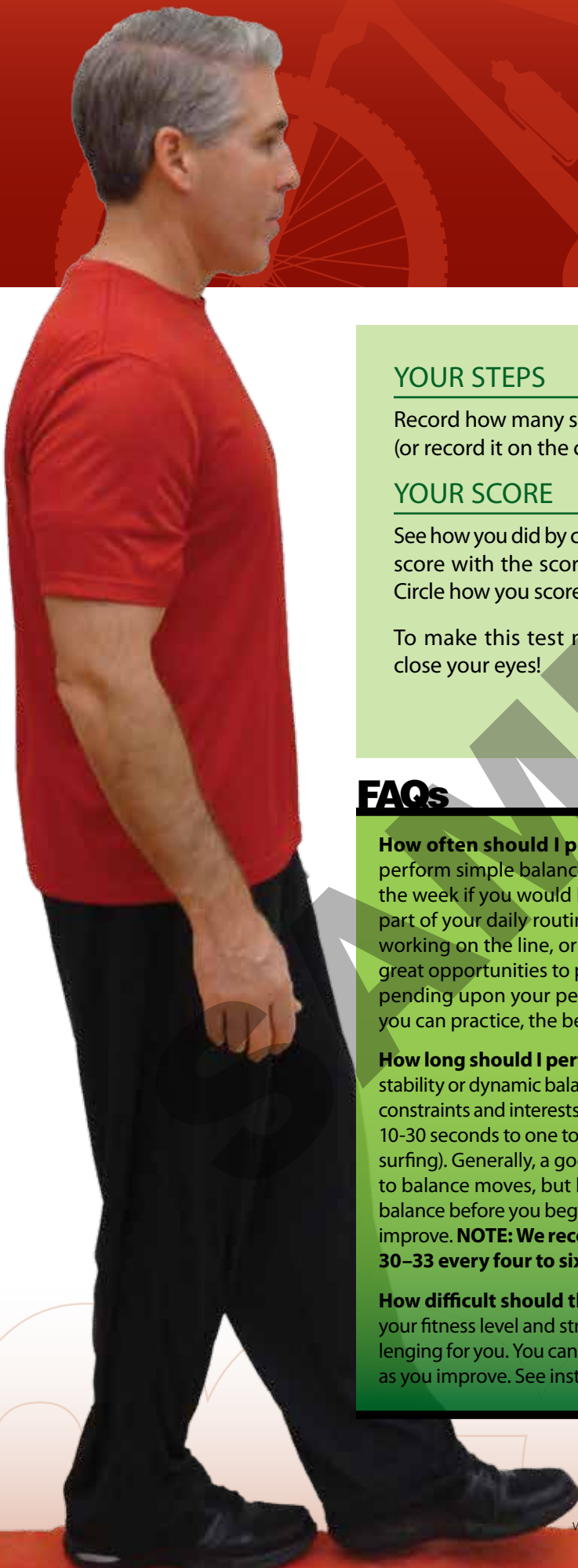
While keeping your hands by your sides at all times, place your left foot on the line and then your right foot in front of it, touching heel to toe. The heel of your right foot should be touching the toes of your left foot.

Continue to walk in this manner, watching your feet and counting how many total steps you can take. (If you are in a small area, count 10 total steps and turn around and walk back.)



▶ TERMINATE THE TEST IF...

- ✓ You cannot keep your balance on the line
- ✓ You are not able to touch heel to toe
- ✓ You have to stop walking to balance yourself
- ✓ You have to use your arms to balance yourself



YOUR STEPS

Record how many steps you could take here (or record it on the chart on page 147):

YOUR SCORE

See how you did by comparing your score with the scores listed here. Circle how you scored.

To make this test more difficult, close your eyes!

RATING	SCORE (STEPS)
Excellent	> 20
Good	16–19
Average	13–15
Fair	10–12
Poor	< 9

FAQs

How often should I perform Simple Balance Moves That Work? You can perform simple balance moves daily (even multiple times a day), everyday of the week if you would like. Often times, performing simple balance moves as part of your daily routine, (for example, when you are at the copy machine or working on the line, or brushing your teeth after lunch or when at home) are great opportunities to practice these skills and improve your health. Note: Depending upon your personality, see what works best for you—but the more you can practice, the better!

How long should I perform Simple Balance Moves That Work? Performing a stability or dynamic balance movement or activity can vary based upon your time constraints and interests, but usually your balance training can be anywhere from 10–30 seconds to one to three hours (e.g. standing one-leg balance move versus surfing). Generally, a good rule of thumb is the longer the better when it comes to balance moves, but be sure to not overdo it. You'll also want to assess your balance before you begin practicing these moves so you can see how much you improve. **NOTE: We recommend performing Balance Test #1 and #2 on pages 30–33 every four to six weeks to see how you are improving.**

How difficult should the Simple Balance Moves That Work be? Based upon your fitness level and strength, begin at a level that is comfortable, but also challenging for you. You can progress yourself from novice to more challenging levels as you improve. See instructions for the Simple Balance Moves on pages 26–29.

Balance

Balance Programs, Tools And Personality Profile Recommendations

To improve your balance, you can perform simple movements such as those mentioned on pages 26–29. Or you can select from various recommended balance programs and tools that we recommend based upon your Fitness That Works Personality Profile.

The following chart is a list of recommended balance activities. (See specific recommendations for your Fitness Personality Profile checked in the right hand columns).

Fitness Personality Profile—My Personality Profile Is

▼ Check three that are the most appealing to you.

BALANCE ACTIVITIES/EXERCISES	PROFILE A	PROFILE B	PROFILE C
<input type="checkbox"/> Simple Moves: One Leg Balance (See page 26–27)	✓	✓	✓
<input type="checkbox"/> Simple Moves: Moving Balance (See page 28–29)	✓	✓	✓
<input type="checkbox"/> Pilates		✓	
<input type="checkbox"/> Tai Chi		✓	
<input type="checkbox"/> Yoga/Dynamic Stretching Classes		✓	
<input type="checkbox"/> TRX Training	✓	✓	
<input type="checkbox"/> Boxing Classes		✓	
<input type="checkbox"/> Ballet		✓	
<input type="checkbox"/> Dance Classes (Ball Room, Zumba)		✓	
<input type="checkbox"/> Stability Ball Training	✓	✓	✓
<input type="checkbox"/> BOSU Training	✓		
<input type="checkbox"/> Air Disc Training	✓		
<input type="checkbox"/> Jumping rope	✓		✓
<input type="checkbox"/> Walking or running barefoot	✓		✓
<input type="checkbox"/> Bowling			✓
<input type="checkbox"/> Trampoline	✓		✓
<input type="checkbox"/> Horse shoes			✓
<input type="checkbox"/> Bocce Balls		✓	✓
<input type="checkbox"/> Golf	✓	✓	✓
<input type="checkbox"/> Surfing			✓
<input type="checkbox"/> Skateboarding			✓
<input type="checkbox"/> Softball/baseball		✓	✓
<input type="checkbox"/> Racquet Sports (Tennis, Badminton, Racquetball)		✓	✓
<input type="checkbox"/> Fencing		✓	
<input type="checkbox"/> Gymnastics	✓	✓	
<input type="checkbox"/> Martial Arts Training	✓	✓	
<input type="checkbox"/> 4–3–2–1 Fitness Training (See page 148–149)	✓	✓	✓

