

BALANCE HEALTH

optimalphysicaltherapy.com 920-648-2400

"Our mission is to empower and educate people about the changes their bodies go through and teach them how to reconnect on a neuromuscular level and heal themselves in a way that allows them to optimize their function and restore their core foundation so they can return to their desired fitness levels safely and with better long term results."

Falling down is no joke. Trips, slips, stumbles and other missteps among people over 65 lead to more than 2.3 million injuries, 662,000 hospitalizations and more than 20,000 deaths each year in the United States. One in three elderly adults fall each year, but they are not alone. One in five middle-aged adults (54-64) fall each year, and more than one in six young adults (21-45) fall each year.

Maintaining good balance can help reduce falls. In some cases, it can even help people become stable enough to reduce their use of canes and walkers. It can also improve the athletic performance of recreational athletes. Balance is like muscle strength; it can gradually decline without a person noticing it,

WHAT ARE BALANCE PROBLEMS?

A balance problem exists when a person has difficulty keeping a stable and upright body position, whether moving or staying still. There are many causes of balance problems, including:

- Muscle weakness.
- Joint stiffness and decreased movement.
- Inner ear problems.
- Certain medicines (such as those prescribed for depression and high blood pressure).
- Lack of physical activity or too much sitting.
- Simple aging.

Balance problems also can be caused by medical conditions, such as:

- Stroke.
- Parkinson disease.
- Multiple sclerosis.
- Traumatic brain injury.
- Arthritis.
- Spinal cord injury.
- Cognitive diseases (conditions that affect learning or thinking).
- Diabetes.

Balance problems occur when one or more of these five systems in the body do not function properly:

- Vision. Poor vision can result from age, eye tracking problems, or eye diseases.
- Inner ear. The part of the inner ear responsible for balance is the vestibular system. Hence, inner ear problems that affect a person's balance are also called vestibular problems. Inner ear problems can develop from trauma, aging, poor nutrition, or disease.
- Muscular system. Muscle strength and flexibility can decline due to lack of exercise, too much sitting, or disease.
- Proprioception (the awareness of one's own body position). Body-position sense can become abnormal due to trauma or a disease, such as diabetes.
- Circulation. A sudden drop in blood pressure when a person sits or stands up, called orthostatic hypotension, can make a person feel dizzy or lightheaded. This may cause a person to faint and fall. Circulation problems can be caused by heart problems, dehydration, and some diseases.

The brain receives and combines information from the eye, inner ear, and body-position senses for balance control. It then sends signals to muscles to move or adjust to stay balanced. A person may not be able to maintain or correct their balance if:

- One or more of the senses is not sending correct signals to the brain.
- The muscles cannot carry out the movements.

HOW DOES BALANCE PROBLEMS FEEL?

A person with balance problems may experience:

- Teetering when trying to stand up, or staggering, tripping, swaying, or stumbling when walking.
- Dizziness or vertigo (a spinning feeling).
- Falling or feeling as if you are going to fall.
- Lightheadedness, faintness, or a floating sensation.
- Blurred vision.

Some people's balance may be fine when sitting or standing still. This is called static balance. Balance also may be fine when only doing one thing at a time. Problems occur more often with dynamic balance when a person moves about or tries to do more than one thing at a time. Dynamic balance problems also occur when information from the eye, inner ear, and body-position senses is altered. Examples include:

- Walking while turning the head to talk to another person.
- Bending and reaching for an object.
- Walking in poorly-lit places (at night, or in a darkened room).

If a person's static or dynamic balance is abnormal, they can easily fall and have a higher risk for injury.

Balance problems can make people fear doing simple daily activities. As a result, they may avoid movements they deem hard or that challenge their muscles. This will cause them to sit too much. This lack of movement leads to the weakness that makes balance problems worse. A person who has balance problems also may feel frustrated about their condition and become depressed.



FALLS RISK

- Age: The most susceptible groups for falls are people 65 years and older with the highest risk of serious head injury, in children under 15 when combined with insufficient supervision from an adult. Older adults who hit their head due to a fall are more likely to have brain injury due to age-related changes in brain structure and circulation as well as medication taken like blood thinners. The below video gives some statistics and an overview of kids and TBI.
- History of Fall: Half of the people who fall will fall again in the next 12 months.
- Fear of Falling: This may relate to being cognitively preoccupied (anxious and impacting attention) and use of the cognitive reserve, which would mimic dual-tasking conditions. Fear of falling causes reduced activity levels.
- Muscle Changes: decreased strength; altered tone and flexibility;
- Altered Balance: Impaired balance results in gradual withdrawal behavior from more complex activities like community mobility or playing sports, and adjustment of execution of some tasks eg using trolleys to carry a drink.
- Polypharmacy: 4 or more prescribed medications significantly increases the risk of falls
- Visual Deficits or Visuo-Spatial Disturbances
- Vestibular Disorder e.g. BPPV, Labyrinthine Concussion (Sensorineural hearing loss with or without vestibular symptoms occurring after head trauma [2])
- Cognitive Deficits: Can manifest as slow processing; impaired executive functions; attention deficits; inability to dual-task/multitask. 2 out of 3 individuals with dementia or cognitive impairment are statistically likely to fall each year.
- Low Mood and Related Medication
- Incontinence
- Chronic Condition e.g Traumatic Brain Injury, Stroke, Multiple Sclerosis (MS), Dementia
- Short Term Factors e.g medication side effects, alcohol intake
- Activity Related e.g walking, stairs climbing,
- Environmental Factors e.g light poor lighting, bad kitchen organization, carpets and rugs, clothing and footwear

Balance Training Quiz?

Are you worried about your balance?

Do you feel unsteady on your feet?

Do you feel weak in the legs?

Have you fallen before?

Do you have a fear of falling?

Are you frustrated that you've lost some of your strength & mobility, and now that your balance is being affected you feel vulnerable and fearful of falling?

Are you having trouble keeping up with your friends and are missing out on fun recreational activities?

Are you still looking for a practical solution to addressing your balance issues so you can enjoy your life independently without having to always worry about falling?



If you answered "Yes" to any of these questions, we can help!

DIAGNOSIS

If you see a physical therapist first, they will conduct a full evaluation that includes taking your health history. Your physical therapist also will ask you detailed questions about your condition, such as:

- How often do you have problems with your balance?
- What are you doing when you experience balance problems?
- Is your balance worse at night or in dark rooms?
- Does the room spin, or do you feel off-balance?
- How many times have you fallen in the past year?
- Has falling caused an injury or a visit to the doctor or hospital?
- Have you changed or limited any activities because of your balance problems?
- What medications do you take?
- Have you had a vision or ear checkup recently?
- Do you ever feel lightheaded, or as if you might faint?
- Do you have trouble doing any daily activities?
- How much, and what kind of, daily exercise do you get?
- Do you have any other medical conditions or problems?
- Are you under the care of a doctor?
- What are your goals?

Your physical therapist will perform tests to check your overall physical ability in areas such as:

- Movement.
- Strength.
- Coordination.
- Visual tracking.
- Balance.

HOW CAN A PHYSICAL THERAPIST HELP?

Physical therapists offer many options to treat balance problems, based on each person's needs. They evaluate many systems of the body, including:

- Muscles and joints.
- The inner ear.
- Eye-tracking ability.
- Skin sensation.
- Proprioception (position awareness in the joints).
- Circulation.

Physical therapists are movement experts who prescribe active movement techniques and physical exercise to improve these systems. Exercises may include those for:

- Strengthening.
- Stretching.
- Position awareness.
- Visual tracking.
- Inner ear retraining.

We can identify, diagnose, and help treat your balance problems by identifying their causes. They will design a treatment program specific to your needs, challenges, and goals. They also will provide you with exercises you can do at home. Your treatment plan may include strategies to:

Reduce fall risk. Your physical therapist will assess problem footwear and hazards in your home that increase your risk of balance problems or falling. Hazards can include loose rugs, poor lighting, pets underfoot, or other obstacles.

Reduce the fear of falling. By addressing specific problems that are found during your examination, your physical therapist will help you regain confidence in your balance. They will help you improve your ability to move freely and do daily activities. As you build confidence in your balance and physical ability, you will be better able to enjoy everyday activities.

Improve mobility. Your physical therapist will help you regain the ability to move around with more ease, coordination, and confidence. They will develop a personalized treatment and exercise program to gradually build your strength and movement skills.

Improve balance. Your physical therapist will teach you exercises for both static balance (sitting or standing still) and dynamic balance (keeping your balance while moving and doing daily activities). They also may work with you on exercises to improve your ability to react to a balance disturbance to prevent a fall. They will increase these exercises gradually as your skills improve to help you progress.

HOW CAN A PHYSICAL THERAPIST HELP? cont

improve strength. Your physical therapist will teach you exercises to address muscle weakness or to improve your overall muscle strength. Strengthening muscles in the trunk, hip, and stomach (core) can be especially important to improve balance. They may use exercise bands for resistance training to improve your strength and avoid joint stress.

Improve movement. Your physical therapist will choose specific activities and treatments to help restore normal movement in any stiff joints. These might begin with passive motions that the physical therapist does for you, and progress to active exercises that you do yourself.

Improve flexibility and posture. Your physical therapist will determine if any of your major muscles are tight. They will teach you how to gently stretch them. Your physical therapist also will assess your posture, and teach you exercises to improve your ability to keep a proper posture. Good posture can improve your balance.

Increase activity levels. Your physical therapist will discuss activity goals with you. They will design an exercise program to address your specific needs and goals. Your physical therapist will help you reach those goals in the safest, fastest, and most effective way possible.

Once your treatment course is completed, your physical therapist may recommend that you move to a community program to continue your balance exercises and get help to fall-proof your home. Hospitals, senior centers, and volunteer groups host such community programs.

Your physical therapist may recommend that you consult with other health care providers, including:

An eye doctor, to check your current vision needs.

An ear doctor, to check your outer and inner ears.

Your primary care doctor, review your current medicines to see if any of them may be affecting your balance.

You will learn about the functions of the balance system, and the cause of your unsteadiness. Results are measured along the way, allowing you to achieve the best therapy outcomes possible. If you choose, we will also address nutrition and overall fitness. Particular balance, strength, and walking exercises are prescribed for each individual, ensuring that you have the most effective and efficient recovery. Timelines for recovery are addressed, so you know what to expect regarding the duration and frequency of your Physical Therapy. Most people have clinic sessions every 2 weeks, and perform the exercises at home daily. Clinic sessions can be more or less frequent, depending on your condition, lifestyle, and distance from the clinic.

TIPS FOR PROGRESS

When you suffer from a sports injury, medical procedure, or chronic soreness, you should use the tips below (in no particular order) to help ensure that your rehabilitation process is a success.

1. Choose a progressive program that fits your goals and challenges you to move forward without causing any unnecessary flare-ups.
2. Set goals, and work to achieve them. Use the SMART procedure to rehab from your pain or injury.
3. Determine your start point and move forward, with the assistance of a trained physical therapist.
4. Set realistic goals that you can meet, such as your healing timeline.
5. Maintain a rehabilitation diary, and mark when you have met a goal or made significant progress in your physical therapy recovery process.
6. Learn about flare-up management, and how to manage it effectively.
7. Use a mirror or actual people to give you feedback. You can improve your movement patterns, and change the approaches you are taking during your rehab process.
8. Choose an environment where you can solely concentrate on your recovery and healing process.
9. Rehabilitation consists of various aspects, including education, endurance, posture, functional exercise, motor control, and strength.
10. Vary the tasks you have outlined for yourself. This is a learning process, and in order to recover from your injury and eliminate any chronic soreness that you have, you will need to learn what forms of treatment and exercise work; you will learn as you go.



NO REFERRAL NEEDED

805 Elm St., Lake Mills, WI 53551
920-648-2400 optimalphysicaltherapy.com

