

Making “Sense” of the Balance Systems



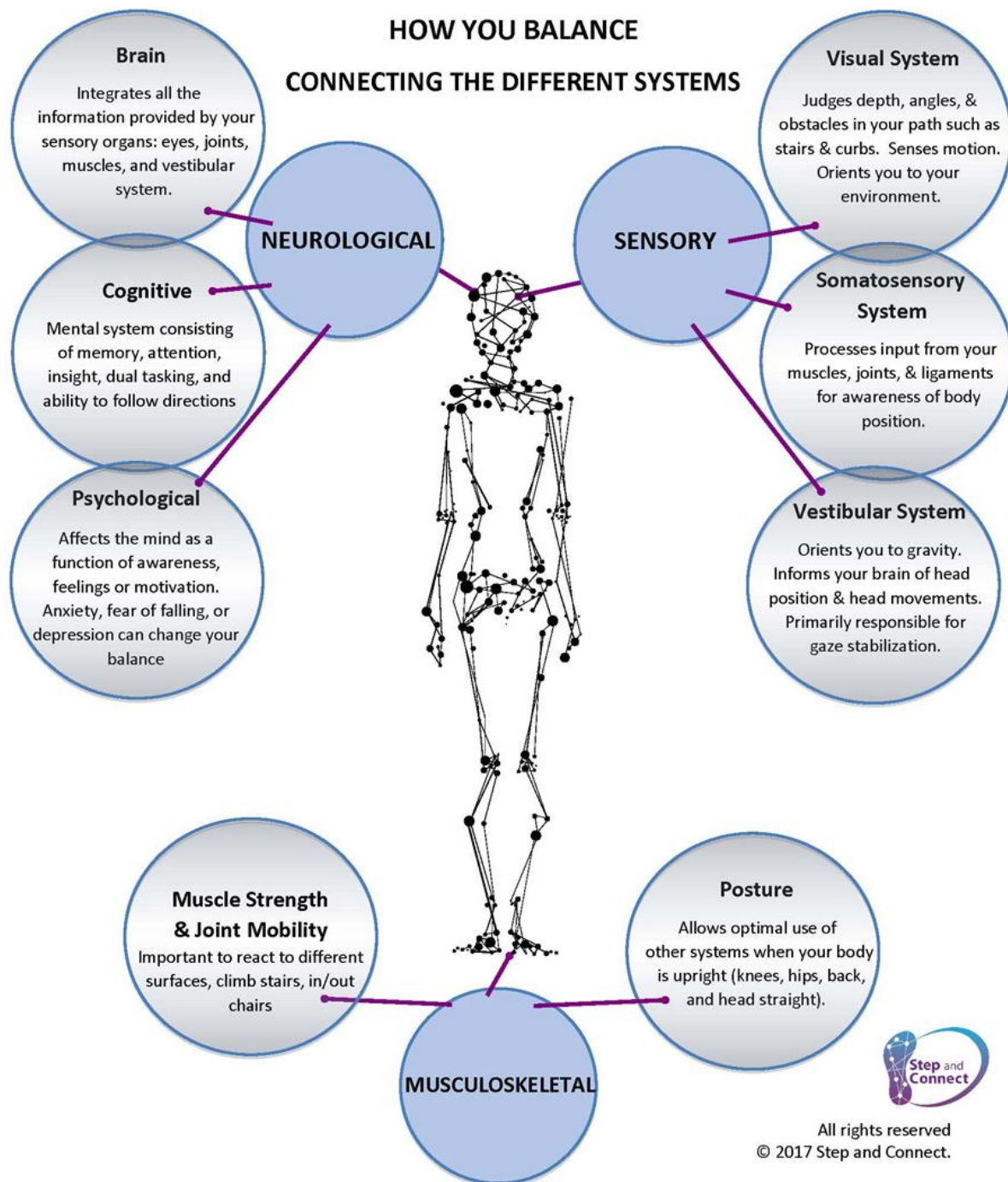
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I CAN improve my balance and reduce my risk for falls.

I WILL understand my balance and the rationale for an individualized exercise prescription to start making changes today!

I MUST exercise and engage all my senses to see benefits.

EDUCATE Yourself About Balance



Good balance requires that input be transmitted efficiently and effectively between your eyes (visual system), muscles, tendons, and joints (proprioceptive input), and the balance organs in your inner ear (vestibular system).

This results in coordinated movements and reactions in the legs, feet, arms and trunk. The brain needs to integrate both the sensory and motor processes in order to select the most appropriate strategies and learn how to integrate new mobility strategies when necessary.

ENERGIZE the Sensory Systems



Vision: To maintain balance and navigate space in our physical world, we must organize and integrate information from our eyes to help guide our movements.

- Have your eyes checked not only for acuity but also eye movements (smooth pursuits, saccades, vergence), peripheral vision, visual processing, spatial neglect).
- Incorporate eye movement training and attention exercises into your exercise program. (Consult with a health care professional for the correct type of exercise for you.)
- Look for open spaces and where you want to go!
- Have your eyes help lead the movement, look where you want to go. (i.e. when you roll to the right in bed look first to the right and then roll over, during turning - start by looking where you want to go.)



Vestibular: The role of the vestibular system is to tell your brain the position of your head in space, and to measure the speed of movement of your head with all movements.

- Report dizziness or vertigo to your MD or therapist.
- Become aware if your balance changes with head movements. (Can you turn your head and continue to walk straight, or do you veer?)
- During turning try to make a wider turn rather than a sharp, narrow turn, and initiate looking where you are going to turn to initiate turns from a top down approach.
- Incorporate exercises on uneven surfaces, inclines ... (Consult with a therapist.)



Somatosensory: The somatosensory system is composed of neurons that make the conscious perception of touch, pressure, pain, temperature, position, movement, and vibration possible.

- Have light touch, temperature, vibration and position sense tested by MD or therapist.
- Become aware if you have over-reliance on vision for postural orientation and walking. Do you feel off balanced, shuffle in the dark or always look down at your feet?
- Incorporate eyes closed exercises and position sense exercises into your program. (Consult with a PT for correct type of exercise for you.)



Increase awareness of foot position during standing and sit to stand. Stand with your feet shoulder-length apart in a warrior (slightly staggered) stance. This will also help with initiation of your first step. When your feet are close together for any length of time, you increase your risk of losing your balance and falling.

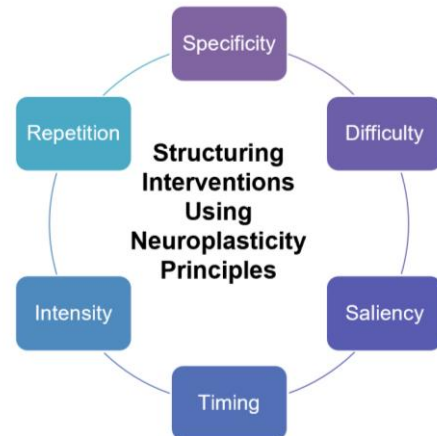


EMPOWER: Your Balance CAN improve with Exercise

and you CAN reduce your risk of falling!

Balance Training should be:

- Theory-driven (Task Specific)
- Highly challenging
- Progressive
- Goal-oriented
- Balance plus strengthening exercises
- High dose



Find activities you love, such as: **Boxing, Dancing, Yoga, Hiking, Biking, Tai Chi, FitBit (find a buddy to monitor step count), group classes, gym workouts ...**

3 questions to ask:

1. Have you fallen in the past year?
2. Do you feel unsteady when standing or walking?
3. Do you worry about falling?

These 3 questions the CDC recommends in the screening process to help reduce the risk of falling.

If you answered “yes” to any of these key screening questions, you are considered at increased risk of falling. Further assessment is recommended. Speak with your MD or consult with a physical therapist to test your balance.

Need the entire team to assess your balance and risk factors

