

4 YOUR GAIT®

4 Your Gait is a system for monitoring and improving the critical component of life – *Balance*. Balance is the core of all *movement*: Whether you are sprinting to catch a train, jumping for a rebound, or walking up a flight of stairs, balance is essential in getting us from point A to point B effectively and efficiently. Balance is also strongly tied to *health*: Several different studies have shown that having good balance can *increase your lifespan*¹ - Reversely, bad balance has been shown to be an *early indicator of brain deficiencies*² like dementia and Alzheimer's disease.

By improving our balance, we improve our ability to perform daily tasks and reduce our risk of fall-related injuries. Luckily for us, balance can be *trained and enhanced* at any age – It is easily measured, and more easily practiced, and improvements will have great effects on your overall wellbeing. By routinely checking your *balance* and increasing your *proprioception* (your awareness of yourself in space), you will put yourself on a course to a happier, healthier life.

At a 4 Your Gait lab, you will gain insight on your *static* balance through simple tests that can be practiced at home, and your *dynamic* balance by performing a simple and precise objective gait analysis on our **OptoGait** system. You will also receive a pair of **Barefoot Science** non-orthotic inserts to aid in your *proprioceptive enhancement*. With increased balance and proprioception, you will be on the road to optimal performance.

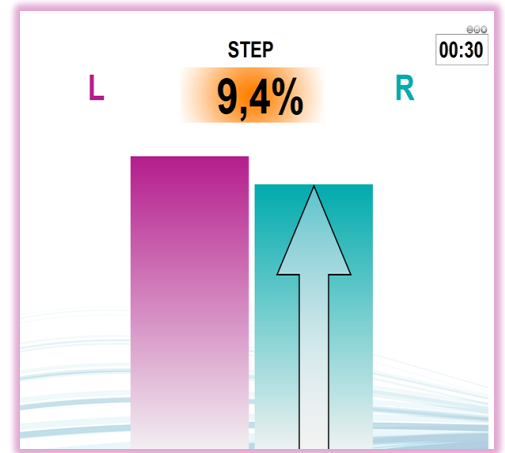
The visits consist of *4 simple steps*:

1. Analysis: First we start with a *static* balance test – stand on one leg with *eyes open* and determine how long you can do this. The test is then repeated with *eyes closed* – any change in ability between the two is directly related to your *proprioceptive ability*. We now test *dynamic* balance by objectively analyzing your walk. Walking is a series of one leg balance tests – a highly balanced person will have symmetry in their gait and a highly unbalanced person will not. By walking in the *OptoGait* system we can objectively measure the gait parameters to see exactly how symmetrical they are. We get a baseline by walking with *shoes off*, and then again with *shoes on*. Comparison of the two will show us how effective your footwear is in reducing asymmetries.



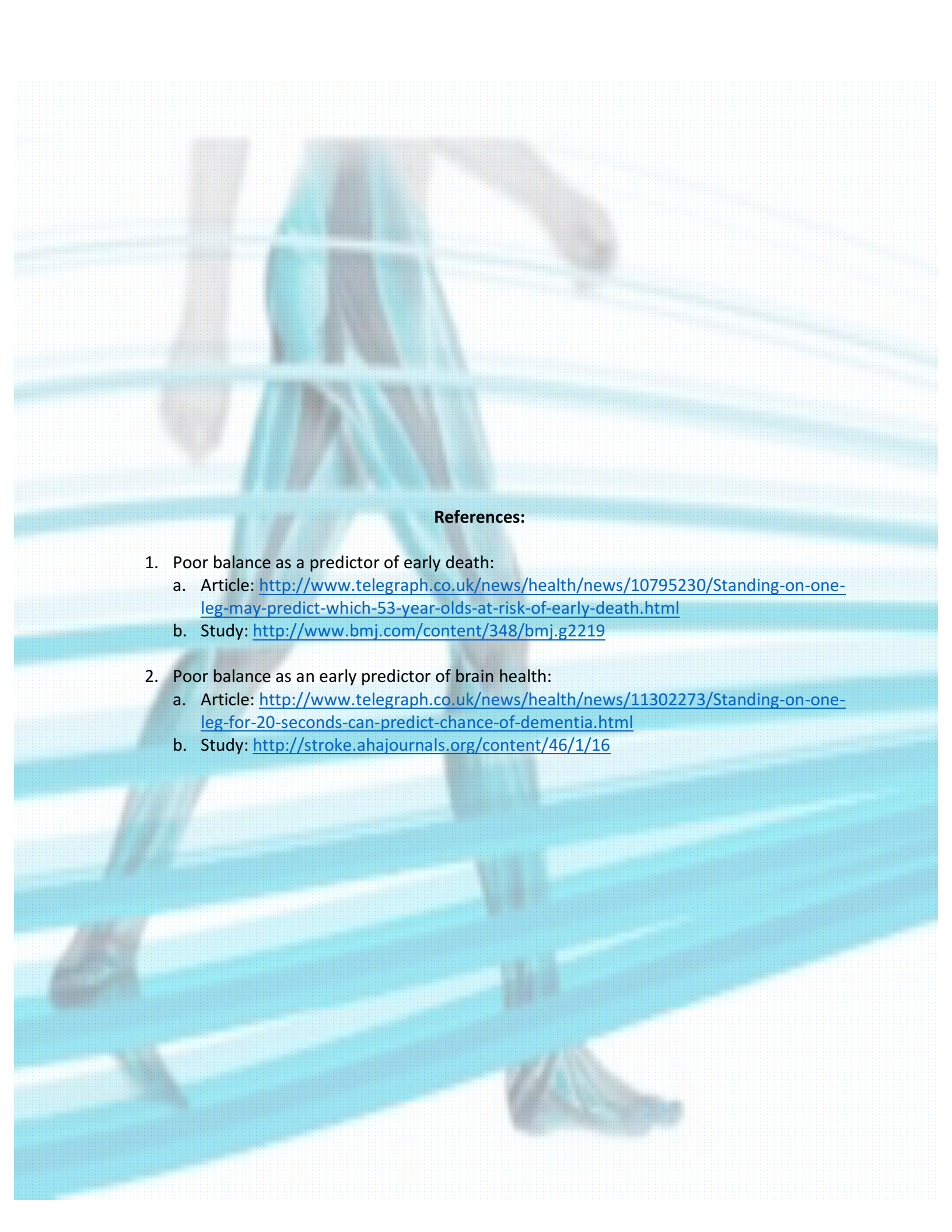
2. Intervention: Once we have a detailed understanding of your balance both standing and moving, we add *Barefoot Science* to your shoe. Barefoot Science is a non-orthotic insert that has 7 different levels designed to improve dynamic balance control and reduce gait asymmetry through mid-sole *stimulation* and slowly *building your arch* over time. On the first visit, you will begin at Level 1, and you will move to higher levels as your balance and proprioception improve.

3. Re-Test: This step is here to ensure that improvements are not only being made, but are being properly learned. With the Barefoot Science inserts in the proper shoe, you will now walk on the treadmill at a comfortable pace in the 2nd Screen of OptoGait. The 2nd Screen allows you to see the asymmetries for any gait parameter in *real-time* as you walk, enabling you to make minor adjustments to reduce any imbalances you have. In this way, you can practice walking in perfect balance, and strengthen the neuropathways required to do so.



4. Practice: This happens at home, where you will continue to improve your balance by working on the same static test you performed at the lab. Stand on one leg, and see if you can hold your balance for *15 seconds* – if you cannot, you must practice until you can. Once you are able to hold balance for 15 seconds on each leg you may move on to *harder levels*: Eyes closed, standing on a foam pad eyes open, standing on a foam pad eyes closed, standing on a bosu ball eyes open, standing on a bosu ball eyes closed, and so on. You *may not* move forward until you master the more basic levels.

By routinely monitoring and improving your balance, you will open yourself up to increased functionality and a happier, healthier life. *Don't just walk, therapeutically walk* by reducing asymmetry and increasing balance and proprioceptive ability with every step that you take. Visit a 4 Your Gait lab for your personalized analysis today!



References:

1. Poor balance as a predictor of early death:
 - a. Article: <http://www.telegraph.co.uk/news/health/news/10795230/Standing-on-one-leg-may-predict-which-53-year-olds-at-risk-of-early-death.html>
 - b. Study: <http://www.bmj.com/content/348/bmj.g2219>
2. Poor balance as an early predictor of brain health:
 - a. Article: <http://www.telegraph.co.uk/news/health/news/11302273/Standing-on-one-leg-for-20-seconds-can-predict-chance-of-dementia.html>
 - b. Study: <http://stroke.ahajournals.org/content/46/1/16>