

# IF YOU CAN'T WALK; YOU CAN'T RUN !

By Gary Ward

**Have you heard the saying "Don't try and run before you can walk?" Could it be that that is exactly what the masses of runners are attempting to do right now? Run before they can walk?**

With marathon season upon us, there are currently hundreds if not thousands of runners out there preparing to run 26 miles and the sad truth is that the majority of them actually struggle to walk.

As specialists in human walking (or gait as it's known in the business) we are aware that the way people walk affects everything from their physical potential to their daily pain and definitely the pain they can experience as a result of running.



Gait is measured using a forceplate. It enables us to pick up on static posture and dynamic motion of the feet when walking and running, by determining pressure through the patient's feet. I have worked with fitness professionals, therapists, professional sportsmen and women. One thing I notice in **ANYONE**, despite being fit, healthy and/or knowledgeable is that when you walk them over a force plate there are obvious anomalies to the way they walk. Furthermore, they are using compensated gait patterns which always contribute and link back to the pain they have in their bodies. A successful outcome for the runner is when the compensated gait patterns are replaced by smooth flowing motion: patients who manage to override these anomalies and enhance the way they walk report back two things:

- A) The related pain improves, or better, disappears
- B) They notice significant improvement in the way they run and the times they get

Now, this is no coincidence since walking constitutes the most primal instinct of humans, it's what sets us apart from the animal kingdom and represents one of our earliest achievements to work towards from birth.

Walking is a whole body movement. What I mean by that is that when you walk every part of your body will be set in motion. Delving down deeper into that, we know that you can walk efficiently or not efficiently and it is the 'not walking efficiently' that leads to structural changes in your body. Structural change or postural imbalance is thus directly influenced by how you walk. When you seek a running coach for technical training, they may consider your posture but it's unlikely they would consider that your posture is influenced by your long term, set in stone, habitual way that you walk. Oops!



Walking is a pattern that you repeat on a daily basis. You do not change the way you walk. It is a fixed and constant repeated pattern in your body. To change it takes significant external influence. Let's take a look at your average step:

We know that the foot takes a journey from heel to toe. This takes anywhere between 0.65s and 0.8s to complete. Mapping this journey into what I now call the Flow Motion Model, I discovered five key moments, each of which represent significant global change in the structure and dynamic posture of the body. Each step you take, the foot takes a journey from heel to toe, in essence it passes through certain phases: (1) the heel comes into contact with the ground, (2) the foot pronates and is followed by three stages of supination (phase 3 - 5) before it swings (6) through the air and all starts again. Each phase relies on the success of all others. Any weakness or failure of the body to complete a phase means the whole process fails. Fail phase 2 and phase 3 becomes impossible without compensation present. Sadly in this day and age, there are very few normal feet and this makes walking a problem...

## Heard of over-pronation before?

Over pronating feet cause a problem by failing to successfully complete phase 2, as a result your body can suffer the consequences, unless you get really good at compensating. The second phase - foot pronation - has significant impact on whole body motion. Ultimately when you over-pronate it means that you fail to optimally access the follow on phases 3 through 5. These later phases represent the propulsive element for forwards motion, which if you cannot access in the feet mean your body must compensate enormously to achieve forwards motion when over-pronation is present.

Why are the later phases of gait important? Running requires the use of the later phases of gait (mid to forefoot running). If you can't do access them effectively when you walk, then neither can you do it effectively when running! It means you run in a compensated way! Any failure in phase 2 of the walking cycle - being over-pronated or high arched - is an indicator that you struggle to access the later phases easily... queue tight hip flexors, weak hamstrings, shin splints and countless other problems. Not good.

Correct walking relies on fantastic foot function and enables muscles and joints to go through the appropriate motions to propel you forward with ease. Muscles of the hip such as the glutes, hamstrings and even the hip flexors are reliant on correct walking and optimal foot function to gear the muscles up for optimal forward propulsion. As an over-pronator, these big muscles - designed to propel you forward - **NEVER** get the opportunity to do that. If you know, or have been told that you are an over-pronator, it's likely that how you move forwards in gait can only be a compensation for your inability to correctly access the mid to forefoot phases, normally caused by flatter over-pronating or supinated and high arched feet. With 95% of abnormal foot postures being over-pronators, we see a HUGE amount of runners with inhibited butt muscles, poor hamstring function, weak adductor muscles along with hip and lower limb injuries such as shin splints, plantar fasciitis and weak ankles (to name a few). Why? Because the necessary phases for running are the later phases we use when walking (traveling through mid and forefoot). Turns out that few people can access these at a slow pace when walking, never mind a fast one! So why do we expect to be able to achieve it at higher speeds with less margin for error? Why are we trying to run, before we can walk?



As an over-pronator you may also be of the mindset that your over-pronating feet will be around forever. I live to challenge that thought process. Foot arches are made of muscles and bones, same as any physical structure in the body.

**If you can build abs, pecs and biceps then you can rebuild a fallen arch.**



**What to do?**

One way to approach this is to take a look at how you walk as opposed to how you run to override these simple patterns with the goal of accessing all the necessary phases of gait so that you have no compensation patterns in place when you challenge the body to work harder. Running is a progression of walking. If a horse is lame, no one in their right mind would try and teach it to gallop better, would they?

Running is different to walking: your foot spends less time in contact with the ground, which means your body's window of opportunity to react to the ground impact forces is small in comparison. Walking has a much bigger window which represents full range

of motion for each joint and each muscle - so it forms a much bigger picture. As soon as you begin to fail any part of the gait cycle when walking, ranges in muscle and joint motion start to reduce - this naturally carries over to running. Now, if you are able to restore the ideal patterns of walking and work to restore natural arch function and foot mechanics, then there is a natural solution to your problem.

We do have a second problem. Which is this: I have never seen anyone with two identically functioning feet! If we assume that when the foot impacts the ground it creates a reaction up the body; what we notice is that both feet send different information up the joint system of the body creating a different way of functioning on each leg. Now we can see spine dominant rotations to one side and spinal shape distortions (scoliosis for example) as well as leg length problems to boot. I call them Jekyll and Hyde feet – split personalities. Can you see how that could be a problem?

If, as a clinical focus, therapists chose to a) optimise the timing of the foot on the ground and b) rebalance both feet to move identically to each other and thus drive balance into the global system in movement, we would have the perfect solution to walking and running problems come marathon time.

In preparation for your 2013 marathon schedule, there are a variety of solutions available to runners . If you are aware that you have repetitive problems when you are running, then it begs to ask the question “Is what I am doing effective or could I try something new?”

Imagine taking a step backwards and understanding the three dimensionality of walking, how it impacts on the muscle and joint system to have significant carry over to your running. Imagine then going for a run and feeling free, fast and safe because you have overridden your habitual, set in stone patterns and liberated your body in such a way that running is once again a pleasure and no longer a chore.

You'd be interested in that wouldn't you?

Gary Ward



Find out more at [www.anatomyinmotion.co.uk](http://www.anatomyinmotion.co.uk)  
or visit us on Facebook under Anatomy in Motion.





