



## Foot Health Fact Sheet

# GAIT ANALYSIS

### Did you know...

The first pioneer of scientific gait analysis was Aristotle (384BC-322BC) in his writings *De Motu Animalium* (On the Gait of Animals).

If you can understand how you move – and the impact this can have on your body and overall health – then you are well placed to resolve a range of health issues early on.

#### What is gait?

Gait simply refers to the way a person walks. An abnormal gait can be caused by one or more parts of the body (such as the hips or knees) underperforming, which can lead to imbalances elsewhere in the body when moving.

#### What is a gait analysis?

Gait analysis is a system of scientific analysis used by podiatrists to study how the body moves – or its biomechanics and effects on the feet, hips, lower back and limbs. During gait analysis your body's movements are observed, measured, recorded and assessed. Then a diagnosis can be made, and treatments can be prescribed for conditions which may be affecting your ability to walk, or are causing you recurring pain.

#### What can it tell you about your body?

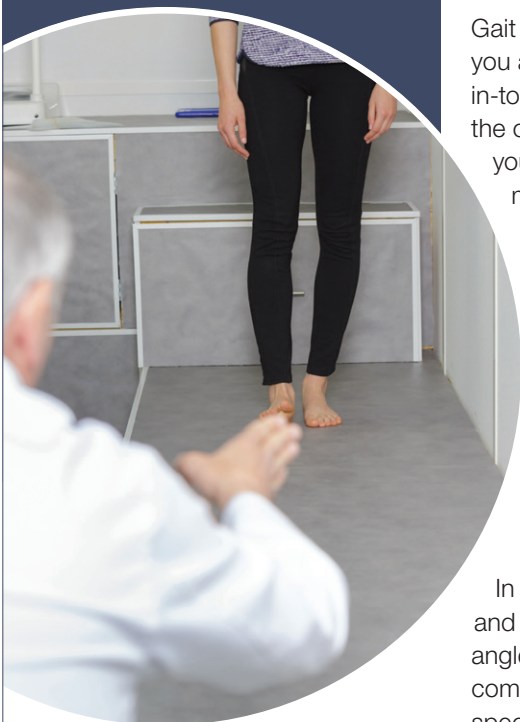
Gait analysis can tell you a lot about your body and how you move. For example, if you are suffering hip pain, this could be related to the way you walk. You might be in-toeing (turning your feet inwards) or out-toeing (turning your feet outwards), and the compensation your muscles are making to keep you upright may be the cause of your pain. Or perhaps your knees or hips turn in, which can affect the quality of your movement – a podiatrist doesn't just study the feet in a gait analysis.

It is important to note that compensations in the body can lead to imbalance around the joints and the main muscles – such as hamstrings, glutes, quads, and calves. This means those areas may become less active and end up contributing less than they should. A gait analysis will reveal such issues.

If you are in pain, have had an accident, or are an athlete seeking to improve your performance, gait analysis – conducted by a podiatrist – is an essential diagnostic tool.

#### What happens in a gait analysis?

In a standard gait analysis you will be asked to stand, walk and run on a treadmill and probably on a normal floor too, with your motion possibly being filmed at various angles for playback and further observation. Sometimes sensors are used in more complex analyses. After that any necessary treatments and exercises to fix your specific issue can be prescribed.



Find a podiatrist at [foothealthaustralia.org.au](http://foothealthaustralia.org.au)

This fact sheet is available as a download from [foothealthaustralia.org.au](http://foothealthaustralia.org.au)



# DO YOU NEED TO SEE A PODIATRIST?



## DOES THE FOLLOWING APPLY TO YOU OR YOUR FAMILY?

- Can you only walk for a short period before your feet or legs hurt?
- Do you experience pain in your lower limbs at night?
- Do you experience tingling in your feet?
- Have you noticed your legs or feet are swollen?
- Do you have cuts or fissures on your feet that take a long time to heal?
- Are you returning to sport after an injury?
- Are you uncertain about which running or sports shoe to buy?
- Do you find that you wear out the outside of your shoes quickly?
- Have you noticed your toes poke holes in the top of your shoes?
- Does your forefoot become hot and painful after running or walking?
- Do your hips hurt?
- Has pain in your feet or legs stopped you from exercising?
- Are you worried about your child's feet?
- Do you have arthritis in your feet?
- Do you experience reoccurring gouty attacks?
- Are you worried about the thickness of your nails?
- Do you have discoloured toe nails?
- Are you worried about your foot odour?
- Do your toe nails cause you pain?
- Have you noticed your toes are clawed?
- Do you have hard skin on your feet? Is it getting worse?
- Do you find it hard to cut your own nails?
- Do you find it hard to fit your feet into shoes because of your bunion?

**Ticked one or more boxes? Then you need to see a podiatrist.**

## GO SEE A PODIATRIST BECAUSE...

Podiatrists are Foot Health Experts and understand the structure and movement of your feet and lower limbs.

They can assess, diagnose and treat foot, ankle, knee, leg or hip pain.

Given your feet alone house a quarter of the bones in your entire body, a podiatrist is best placed to get you moving, active or pain-free.

## FIND A PODIATRIST NEAR YOU

Head to **[foothealthaustralia.org.au](http://foothealthaustralia.org.au)** and search by postcode or suburb to find a podiatrist close to you.



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