



# Flat Feet



## What is it?

Flat feet is a condition in which the feet are "rolling in" when the person is standing. This gives the appearance that there is a loss of the arch of the foot. This however is a misnomer. Most feet when studied in the sitting position have an arch. Only during weightbearing do they collapse, hence these feet are said to be compensating for a particular condition, they display - PRONATION, so they are really not flat at all.

## What causes it?

There are many causes of abnormal pronation, the most common being:

- Hereditary bony or soft tissue conditions within the foot that distort normal walking patterns. This causes the foot to "unlock" to reach the ground.
- Abnormal muscle length or muscle tone
- Abnormal leg rotations
- Poor pelvic alignment causing leg length differences
- Spinal conditions (e.g. scoliosis)
- Poor foot loading
- Muscle spasticity (e.g. cerebral palsy)

## Effects of Pronation

The result of either short or long term pronation can vary a great deal from patient to patient, but it should be noted that this abnormal force on the body is a major contributor to a myriad of bony and soft tissue problems and therefore - PAIN.

Symptoms can manifest in the:

- Feet (e.g. bunions, hammer toes)
- Heels (e.g. heel spurs)
- Shins (e.g. shin splints)
- Knees (e.g. chondromalacia or cartilage damage to the kneecap)
- Thighs (e.g. Iliotibial band syndrome)

- Hips (e.g. greater trochanter bursitis or inflammation near the hip joint)
- Upper and lower back (e.g. Disc protrusion)
- Neck and head (e.g. migraines)

Not only is pronation a major pain contributor in the adult body, but it is also a common factor associated with so called "Growing Pains" in children. So eliminating this source of aggravation when undergoing knee, hip, back and neck treatment is of the utmost importance.

## How is it treated?

As it is now clear that there is an obvious cause of pronation, dealing with this factor is of primary importance.

Your Podiatrist will carry out a detailed assessment of your feet, legs, pelvis and back to identify the cause. He/she will then draw lines on you and take specific measurements with respect to different angles of your joints. An analysis of your walking pattern is then performed on a treadmill with the use of video and computerized imaging. A plaster cast is then taken of your feet in what's called the neutral position and a detailed prescription is drawn up for you, by which a pair of orthoses can be made.

A prescription orthotic device is then produced by a professional laboratory which fits inside your footwear and as mentioned addresses the condition from the cause.

Obviously different conditions will require integrated therapy with other health professionals, which your Podiatrist will discuss with you. This may involve exercises, manipulation, massage, footwear evaluation, etc. depending on each individual's requirements.

*So remember!* Giving you something in your shoes to "roll onto" is simply not the answer. Setting up a clear, concise and detailed treatment programme targeting why the pronation exists and allowing for specific conditions, is what Podiatry Care aims to achieve.