

## Overpronation

### ⦿ What is it?

Pronation is a normal part of the gait cycle, and refers to a combination of movements that occur in the foot when standing, walking, and running. Among these movements is the slight lowering of your arches and rolling in of your ankles as your body weight is accepted by your feet, but if these movements are excessive, it becomes known as *overpronation*. Overpronation introduces alignment problems to your feet and ankles that can indirectly pull your entire lower body out of alignment, resulting in a range of foot, knee and hip problems.



**Overpronating Feet**

### ⦿ What causes it?

Most overpronators can attribute their condition to:

- Laxity in certain ligaments of the foot at birth
- Muscular tightness, particularly in the calf muscles
- Muscle weakness on the inner part of the leg/ankle, failing to roll the ankles out (supinate, opposite of pronate) when appropriate.
- Ligament laxity and tendon damage caused by repetitive use (athletes)
- Hereditary causes

Overpronation and flat feet are two separate conditions. Quite often, both are present, however not all overpronators have flat feet, and not all flat-footed people are overpronators.

### ⦿ What are the effects of overpronation?

Effects of overpronation vary based on age, weight, activity level, and other lifestyle choices. Some overpronators may go through life without problems, and others may suffer from a variety of conditions from just the slightest malalignment of the foot, such as:

- Flat feet
- Bunions
- Heel pain (plantar-fasciitis/heel spurs), ankle pain and instability, and hip pain
- Forefoot pain
- Stress Fractures
- Shin splints
- Knee pain (patellofemoral syndrome, excessive knee cartilage wear, chondromalacia)
- Tendonitis (Achilles and Tibialis Posterior tendons most common)

## ⦿ How is it treated?

- If the problem is structural, **custom made orthotics** may be required to put your feet in a more neutral position to relieve pain caused by overpronation.
- If your pain is caused by muscle tightness or weakness, a **muscle stretching and strengthening** program may help in alleviating your symptoms.
- **Good footwear** is also essential. Your shoes must have the right amount of cushioning and support for your foot type. Specialist shoe stores can advise you regarding the correct footwear for you.



*Custom-made foot orthosis*

## ⦿ When is the best time to treat?

The best time to start is at the age of 6-8 years old. By treating early, there is an opportunity to make permanent changes to foot structure during growth. Once the foot is fully grown this is less likely, and the focus then shifts to accommodating the overpronating foot. Children under 4 are rarely treated, as it can be part of their normal development to have overpronating feet. This should still be monitored however, and if the feet fail to develop correctly, treatment should be considered. A great way of monitoring the development of your child's feet is to take photographs at regular intervals, from a number of different angles.