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## What is Over Pronation?

The mechanics of how we walk and move is important to ensuring that we remain injury free, unfortunately in many cases the architecture of the foot can disrupt our gait (the way we walk), potentially causing long term injury and pain problems.

Over-pronation, or flat feet, is a common biomechanical problem that occurs when a person's arch collapses too far upon weight bearing, and is said to be "over-pronated".

Pronation is the natural motion of the foot as it roles inward and flattens out when the foot makes contact with the ground. Pronation is part of the body's natural complex shock absorption and allows the foot to adapt to the contour of the ground. Too much pronation will cause the arch of the foot to flatten excessively placing stress and pressure on the tissues and ligaments of the foot.

The best way to determine if you over pronate is to visit a Podiatrist who can do a full gait analysis on a treadmill or using forceplates measuring exactly the forces and angles of the foot whilst running. It is not only the amount of over pronation which is important but the timing of it during the gait cycle as well that needs to be assessed.

# This is quite a common problem and may lead to a number of injuries, especially in runners, including:

- · Arch Pain
- Shin splints
- Plantar fasciitis
- Heel Pain
- Achilles tendon problems
- Stiff big toe (Hallux limitus)
- · Heel spurs
- Bunions (Hallux valgus)
- Knee pain
- Lower back pain
- Pain in the ball of the foot(metatarsalgia or Morton's neuroma)

# Normal arch High arch Flat arch

#### **Treatment and Prevention**

Below are some of the treatment protocols that may be used:

- Orthotics provide the required arch support to effectively reduce excessive pronation and restore the foot and its posture to the right biomechanical position. Orthotics should be designed with appropriate arch support and medial rear foot posting to prevent the over-pronation.
- Footwear should also be examined to ensure there is a proper fit. Footwear
  with a firm heel counter is often recommended for extra adequate control,
  support and stability. Improperly fitting footwear can lead to additional
  foot problems.
- Strapping/Taping Taping the foot in a certain way provides support for the foot as well as stability and may be used in acute cases or as a first line treatment.
- Exercises These are used to strengthen certain muscles in order to achieve better foot function.
- Stretching protocols This help in loosening tight muscles and ligaments to prevent further strain.
- Joint manual mobilisation This helps joints that may have become stiff or fixed to loosen up and in turn allowing for better foot function.

### S-T-R-E-T-C-H Of The Month Golf Ball Roll

- Start by rolling a golf ball under each of your feet between 30 and 60 seconds.
- When you feel that the golf ball has touched one of the points where you feel pain, pause for 10 seconds and massage that area.
- 3. Concentrate on stretching your muscles by pulling your toes up and toward your shins.
- 4. Repeat three to five times as needed.

# TOWARDS WELLNESS Thought for Today Tomorrow...

Become aware of your thoughts. If you think negatively all the time, you are going to live in fear. This makes it impossible to ever live a happy life. The truth is our thoughts are our reality. This means that if you don't want something as a reality in your life – stop thinking about it!



#### **103 ROWAN STREET, WANGARATTA**

 Monday
 9.00am - 4.00pm

 Tuesday
 8.30am - 6.30pm

 Wednesday
 8.30am - 5.30pm

 Thursday
 8.30am - 7.00pm

 Friday
 8.30am - 5.00pm

#### **34 CARRIER STREET, BENALLA**

Monday 9.30am - 5.30pm Wednesday 9.30am - 5.30pm Friday 9.30am - 5.30pm

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