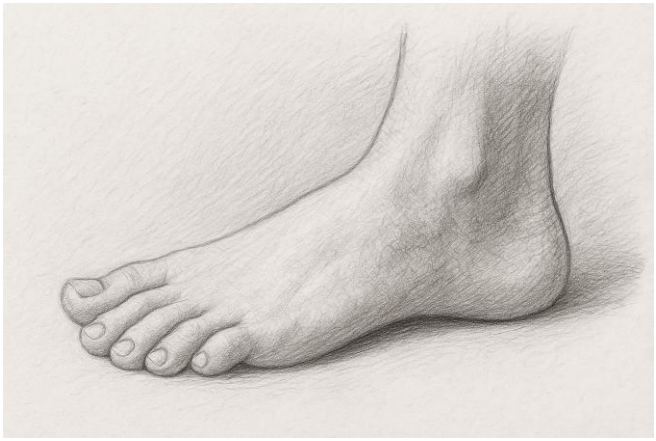
Level 8 Watkins Medical Centre www.winsonfootandankle.com.au admin@winsonfootandankle.com.au
225 Wickham Terrace, Spring Hill, 4000 0730503333

WINSON
FOOT AND ANKLE

The Flat Foot



Pathology of Flat Foot

Flat foot occurs due to the weakening of the tendons and ligaments that support the foot arch. The most common factors contributing to the development of flat foot include:

Congenital Factors

- Genetic predisposition
- Tarsal coalition: A condition where two or more bones in the foot fuse together, limiting movement and flattening the arch.

Acquired Factors

- Posterior tibial tendon dysfunction (PTTD): The posterior tibial tendon supports the arch. When this tendon becomes inflamed or torn, it leads to flat foot.
- Arthritis: Inflammatory conditions such as rheumatoid arthritis can affect the joints in the foot, weakening the arch.
- Trauma: Injuries to the foot or ankle can damage the tendons and ligaments, resulting in flat foot.
- Obesity: Excess weight puts additional stress on the tendons and ligaments, contributing to the collapse of the arch.
- Aging: The natural wear and tear of tendons and ligaments over time can lead to flat foot.
- Diabetes: This condition can cause peripheral neuropathy, weakening the muscles of the foot and affecting the arch.

Symptoms of Flat Foot

Flat foot symptoms can vary depending on the severity of the condition. Common symptoms include:

- Pain in the arch, heel, or ankle
- Swelling along the inside of the ankle
- Difficulties standing on tiptoes
- Foot fatigue after prolonged activity
- Uneven wear on shoes
- Altered gait or difficulty walking

Diagnosis of Flat Foot

Diagnosing flat foot involves a physical examination by a healthcare provider. They will observe the foot while standing and walking and may perform the following tests:

- Imaging Tests: X-rays, MRI, or CT scans to assess the alignment and structure of the foot bones and soft tissues.
- Functional Tests: Assessing the range of motion, strength of the tendons, and gait analysis.

Level 8 Watkins Medical Centre www.winsonfootandankle.com.au admin@winsonfootandankle.com.au
225 Wickham Terrace, Spring Hill, 4000 0730503333

Treatment of Flat Foot

Treatment of flat foot depends on the severity of the condition and the presence of symptoms. The goals of treatment are to alleviate pain, restore function, and prevent further deformity. Treatment options include:

Non-Surgical Treatments

- Orthotic devices: Custom-made arch supports can help distribute pressure evenly and provide support to the arch.
- Physical therapy: Exercises to strengthen the muscles and tendons of the foot and improve flexibility.
- Medications: Nonsteroidal anti-inflammatory drugs (NSAIDs) to reduce pain and inflammation.
- Activity modification: Reducing activities that exacerbate symptoms, such as prolonged standing or high-impact sports.
- Weight management: Losing weight to reduce stress on the feet.
- Supportive footwear: Wearing shoes with proper arch support and cushioning.

Surgical Treatments

When non-surgical treatments are ineffective, surgical intervention may be necessary. Surgical options for flat foot reconstruction can be divided into 2 broad categories:

- Joint sparing surgery (covered below)
    - Osteotomies
    - Tendon transfers
    - Calf lengthening
- Joint sacrificing surgery (covered in hindfoot fusion)

What will my surgery entail?

- Surgery usually requires a single overnight stay.
- The anaesthetist will talk to you about the different anaesthetic options available to you ensuring that it is individualised to your specific wants and needs.
- Each patients' flat foot surgery is specifically tailored to their needs and will vary subtly.
- The operation may include one or more of;
    - Osteotomies – a bone is broken repositioned and then held in place with a screw or plate
    - Tendon transfers – a tendon or part of a tendon is cut and moved to a different part of the foot to perform a different function
    - Calf lengthening – the calf muscle or Achilles tendon is cut and lengthened.
- The incision are closed and the foot is wrapped in a partial plaster for 2 weeks. You will need to be non-weightbearing for a total of 6 weeks following surgery. You will usually be provided with anticoagulation medication for these 6 weeks.

What can I expect post-operatively?

- After 2 weeks you will require a wound at which point the plaster can be removed. At this point the wound will most likely be healed but you may require a few more days with a small dressing on to ensure that the wound is fully healed.

- You will be provided with a moonboot and you can start some gentle ankle movements but must remain strictly non-weight bearing.
- At 6 weeks following surgery you will require a weight bearing X-ray of your foot to confirm that the bones are healing well. They are not expected to be fully healed at this point.
- If all is well at the 6 weeks check you can start to weight bear in the boot for an additional 6 weeks. At the end of this 6 week period you will be able to return to normal shoes.
- It is normal for the foot to remain swollen for 3-6months following surgery.
- It is normal for you to experience some pain in the toe from time to time for the first 3 months. You are expected to return to your normal level of function at 4-6 months.