

# SUMMER EDITION | FEBRUARY 2019

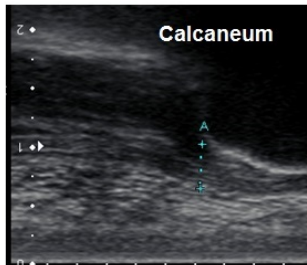
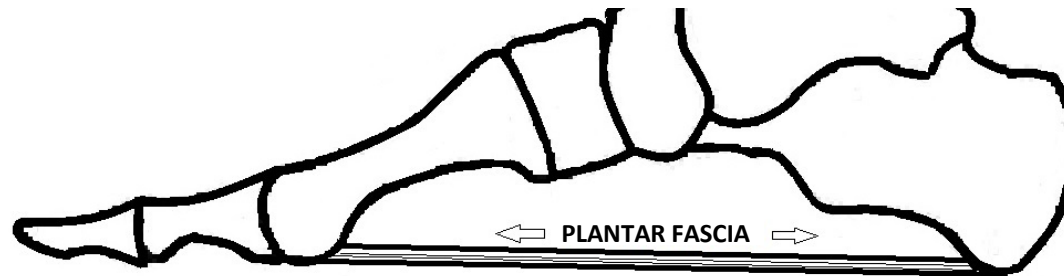
## ANKLE, FOOT & ORTHOTIC CENTRE - NEWSLETTER



Ankle, Foot &  
Orthotic Centre

### HEEL PAIN

Heel pain (plantar fasciitis, plantar fasciosis, heel spurs) is very common and typically causes pain with first step and with extended walking. The **Flow chart** below provides an overview of the degenerative process and some of the treatment options available at the Ankle, Foot and Orthotic Centre

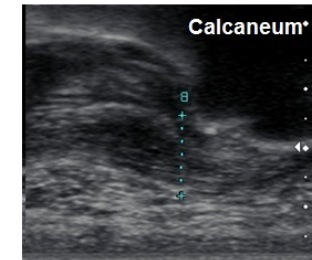
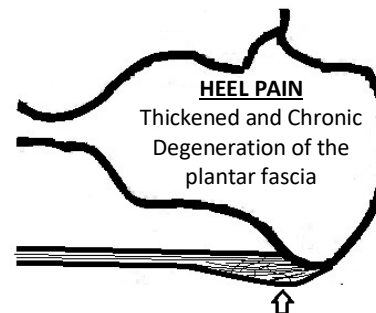


**Ultrasound appearance of a Normal Plantar Fascia**  
Normal linear fibrillar pattern normally 3-4mm thick

Trauma/ Overload of the plantar fascia  
**Micro tears and damage**



Weeks or Months



**Ultrasound appearance of Plantar Fascia Degeneration**  
Loss of the normal linear fibrillar pattern of the plantar fascia with thickening (5-8mm thick) and insertional bone interface changes

**PHASE 2 OF TREATMENT- REPAIR PHASE**  
MINIMISE THE CAUSATIVE FACTORS THAT RESULTED IN THE DEGENERATION IN THE FIRST PLACE AND PERFORM TECHNIQUES TO ENSURE APPROPRIATE HEALING

- OPTIONS INCLUDE:
- More Supportive shoes
  - Alfredson Eccentric Stretches (Calf Stretches)
  - Night Splint (Strassburg Sock)
  - Orthotic Insole arch supports
  - Shoes with a slight heel
  - Gel Heels
  - Taping Techniques
  - Manual Massage (Frozen bottle)

**PHASE 1 OF TREATMENT- STIMULATION PHASE (FOR A CHRONIC DEGENERATIVE PLANTAR FASCIA)**  
THE AIM IN THIS PHASE IS TO MAKE THE AREA OF CHRONIC DEGENERATION **ACUTE AND ACTIVE** SO THAT THE BODY CAN START TO REPAIR THE DAMAGED AREA

- OPTIONS INCLUDE:
- Shockwave Therapy
  - Injection Therapy - Dry needling (fenestration), cortisone, prolotherapy
  - Manual Massage
  - Alfredson Eccentric Stretches (Calf Stretches)

ACUTE AND ACTIVE

- Painful heels
- Morton's Neuroma
- Diagnostic Ultrasound Imaging
- Ultrasound Guided Injections
- Bunions
- Ingrown toe Nails
- Corns/ Callous
- Sports Podiatry
- Kids Feet
- Orthotics
- Achilles Injuries
- Flexible Flat Feet
- Clawed Toes
- Shockwave Therapy
- Ankle Foot Orthotics (AFO's)

## EXTRACORPORAL SHOCKWAVE THERAPY

### Treating Heel Pain



The use of shockwave therapy has gained attention recently for its use in chronic tendinopathy in the foot, ankle, elbow, shoulder and knee. For the Foot and Ankle we have found Shockwave Therapy particularly beneficial in treating **Achilles Pathology** and **Plantar Heel pain**

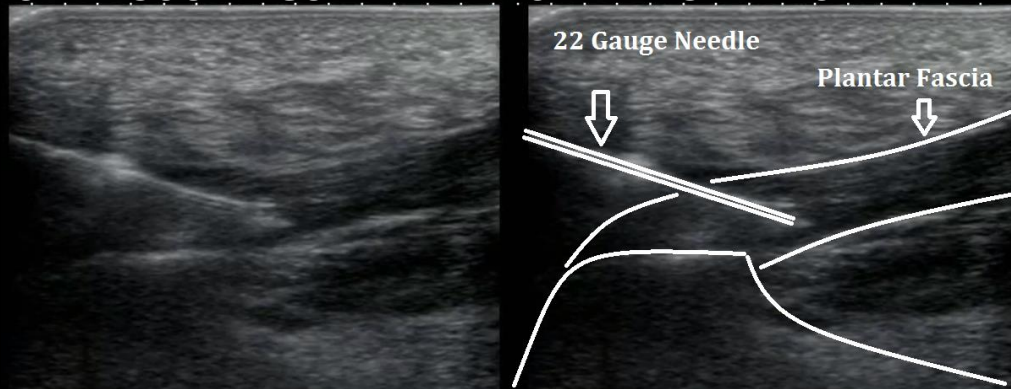
Non-invasive Extracorporeal Shockwave Therapy (ESWT) delivers abrupt, high amplitude pulses of mechanical energy.

This type of procedure has been reported to have a 60- 80% success rate (1).

At the Ankle and Foot Centre we use the Swiss Dolorclast Machine, this machine is FDA approved and has been involved throughout the literature and is considered one of the best shockwave therapy units.

1. Notarnicola A, Moretti B. The biological effects of extracorporeal shock wave therapy (ESWT) on tendon tissue. *Muscles Ligaments Tendons J.* 2012;2(1):33-7.

## ULTRASOUND GUIDED TENDON FENESTRATION



Tendon Fenestration involves passing a needle through the abnormal tendon multiple times (20-25 times) to change a chronic degenerative process into an acute condition that is more likely to heal.

At the Ankle, Foot and Orthotic Centre we find this procedure is beneficial for non-responsive **Achilles Tendinopathy** and **Plantar fasciitis**.

It is very important that the region is numb for this procedure with the use of local anaesthesia. Ultrasound guidance ensures that the needle is passing through the areas of tendon degeneration.

Tendon Fenestration is thought to stimulate tendon healing by disrupting the areas of tendinosis (2)

2. Chiavaras, M.M. and J.A. Jacobson, *Ultrasound-guided tendon fenestration*. *Seminars in Musculoskeletal Radiology*, 2013. 17(1): p. 85-90.



**Ankle, Foot &  
Orthotic Centre**

**THE  
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This information is for educational purposes only and is NOT intended to replace the care or advice given by your physician. Always seek the advice of your physician or other qualified health provider before starting any new treatment or with any questions you may have regarding a medical condition.