# Patient presenting with plantar heel pain

**Diagnosis and investigation**

- PF is diagnosed via history and physical examinations. [1]
- Other differential diagnoses of plantar heel pain should be considered before the conclusion of the diagnosis of PF. [2]
- Bedside US can be useful to confirm the diagnosis of PF. [3]

**Other investigations to consider**

- If the history and physical examinations are indicative of PF, radiographic imaging has a limited role in the diagnosis of PF. [4]
- If the history and physical examinations are indicative of PF, MRI is not necessary in the diagnosis of PF. [5]

**Risk factors**

- Risk factors for PF should be assessed and addressed. [6]

**Treatment modalities**

- The following should be instituted as first-line interventions in all cases of PF:
  - I. Explanation by the doctor on the biomechanical etiology of PF, to enhance compliance to the management plan
  - II. Activity modification
  - III. Analgesia
  - IV. Ice massage
  - V. Plantar fascia stretching
  - VI. Footwear education [7]
- The following may be instituted as initial interventions in all cases of PF:
  - I. Gastrocnemius/soleus stretching
  - II. Antipronation taping [8]
- If one or more of the indications below are met, a referral to the podiatrist for prefabricated or customised orthotics should be considered. Indications include:
  - I. Moderate-to-severe PF
  - II. Increased pain from using off-the-shelf insoles
  - III. Significant foot deformity, including pes planus or pes cavus
  - IV. High body mass index [9]
- Shockwave therapy is a safe and effective adjunct therapy in the treatment of PF. If one or more of the indications below are met, a course of shockwave therapy can be considered:
  - I. US evidence for PF
  - II. Not better with first-line interventions listed in “Statement 7” after 6 weeks
  - III. Symptoms for more than 6 weeks [11]

**Other treatment modalities to consider**

- A trial of night splint as an adjunct therapy may be considered for patients who are symptomatic despite 6 weeks of first-line interventions. [10]
- Injection of PRP is not a first-line treatment and may only be considered if the following conditions are met:
  - I. No improvement or worsening of symptoms for at least 3 months after one or more courses of shockwave therapy
  - II. Evidence of partial plantar fascia tear contributing to plantar heel pain
  - III. Counselled for off-label use, based on current Ministry of Health guidelines [12]
- Perifascial corticosteroid injection under US guidance may be considered if the patient has persistent severe plantar heel pain and has failed other conservative therapies. [13]
- Surgery for recalcitrant PF may be offered to patients who have symptoms for more than 6 months and have failed conservative treatment. [14]

**Monitoring of condition**

- Follow-up visits should be scheduled from 2 to 4 weeks and 3 to 4 months post-procedure. [15]
- The response to treatment can be monitored via US from 2 to 4 weeks and 3 to 4 months post-procedure. [16]
- At the initial doctor’s visit and at each doctor’s follow-up visit, the following should be documented:
  - I. VAS pain score
  - II. Functional score
  - III. Activity level [17]

**Return to work/play**

- The patient may progressively return to lower limb impact activities or sports when any of the following criteria are met:
  - I. At least 2 weeks after procedure
  - II. VAS pain score less than 2 out of 10
  - III. Lesion is isoechoic/hyperechoic on US
  - IV. Accustomed to walking in his/her new orthosis [18]

MRI: magnetic resonance imaging; PF: plantar fasciitis; PRP: platelet-rich plasma; US: ultrasonography; VAS: visual analogue scale
Numbers enclosed within square brackets indicate the consensus statement number.