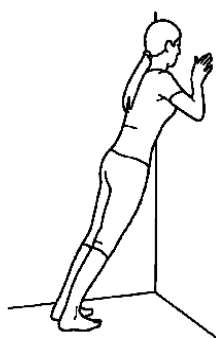


## What is plantar fasciitis?

This condition is relatively common and known as policeman's heel, in brief, it is inflammation or wear 'n' tear of the soft tissues. It often occurs after extended periods of walking on hard surfaces or in different shoes (flip flops for example). It is most obvious when you take your first step in the morning and after sitting for prolonged periods. The average plantar heel pain episode lasts longer than 6 months and it affects up to 10-15% of the population. However, approximately 90% of cases are treated successfully with conservative care.<sup>1,2</sup> Common causes include; overweight, loss of ankle range of movement, fallen arches with excessive pronation, poorly fitting shoes, and often diabetics suffer from this condition.<sup>3</sup>

## Treatments

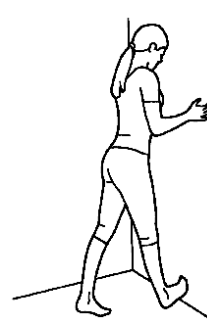
1. Take your usual choice of anti-inflammatory regularly. Follow instructions on the packet and inform the pharmacist of any conditions that you suffer with (e.g. asthma, stomach ulcers, or if you take warfarin).
2. Heat the sole of your foot first thing in the morning (e.g. rub the sole of your foot or put the plug in the bath while showering). Rest your heel on a bag of ice wrapped in a damp cloth for 20-30 minutes at the end of the day. Or try rolling an ice cold water bottle or golf under the arch of the foot.
3. Avoid walking on hard surfaces for over extended periods. Try and take smaller steps. Always wear soft shoes. Try and avoid walking barefoot.
4. Stretch your calves after walking. Face a wall and step back. Keep your heels flat on the ground and feet together. Lean forward onto a wall keeping your knees straight until you feel tension in your calf muscle (Picture 1). Hold still for at least 30 seconds.
5. Repeat with the knees slightly bent (Picture 2). Hold for 30 seconds.



Picture 1



Picture 2



Picture 3

"copyright Physiotoools Ltd. All rights reserved. Use with permission of Physiotoools Ltd."

6. Stretch the sole of your foot before standing, after sitting or lying down. Firmly hold all the toes and bend them back until you feel a stretch in the arch of your foot.

Alternatively for a stronger stretch, place toes on a wall with heel on floor. Slide toes down wall to bend them back, then bend knee and put weight through the arch until a stretch is felt in the arch. Hold for 30 seconds. (Picture 3)

7. Recent evidence has suggested that soft tissue mobilisation (massage) over your calf and plantar fascia (sole of foot) could be beneficial in reducing pain and improving function when combining this with stretching exercises. Please be guided by your physiotherapist.<sup>4</sup>
8. Certain taping techniques can help the pain experienced on the first few steps. It is helpful in more short term flare-ups.<sup>5</sup> It can be used to bridge the gap whilst waiting for foot over the counter orthotics, or as a second line of treatment custom made orthotics may be beneficial but costly. Night splinting e.g. Strasbourg sock, only tends to be helpful with other treatment strategies. However, the evidence for its effectiveness is contrasting.<sup>6,7</sup>
9. There is some evidence to suggest that acupuncture can be beneficial in the treatment of heel pain.<sup>8</sup> There is no evidence to support ultrasound therapy.

### Non conservative treatments

In general steroid injections should be considered after all suitable and available conservative measures have been tried, if symptoms are having a significant impact on the patient and short-term relief of symptoms are required. There are known adverse effects to steroid injection including post injection flare-up of pain (may last for several days), rarely fat pad atrophy occurs, but a return of symptoms within 1 month has been known cause long-term pain and ongoing disability.<sup>8,9</sup>

Patients should possess long term symptoms and have undergone treatment for at least 6 months prior to consideration for plantar fasciotomy surgery, removal of the plantar heel spur or autologous blood injection which promotes healing through the action of growth factors.<sup>8,9</sup>

### References

1. McPoil TG, Martin RL, Cornwall MW, Wukich DK, Irrgang JJ, Godges JJ. Heel pain--plantar fasciitis: clinical practice guidelines linked to the international classification of function, disability, and health from the orthopaedic section of the American Physical Therapy Association. *J Orthop Sports Phys Ther.* 2008;38(4):A1–A18. doi:10.2519/jospt.2008.0302.
2. Thomas JL, Christensen JC, Kravitz SR, et al. The diagnosis and treatment of heel pain: a clinical practice guideline-revision 2010. *J Foot Ankle Surg.* 2010;49(3 Suppl):S1–19. doi:10.1053/j.jfas.2010.01.001
3. Tu, P and Bytowski, JR (2011). Diagnosis of Heel Pain. *American Family Physician*;84(8):909-916.
4. Romulo Reanan-Ordine et al (2011) Effectiveness of Myofascial Trigger Point Manual Therapy Combined With a Self-Stretching Protocol for the Management of Plantar Heel Pain: A Randomized Controlled Trial. *Journal of orthopaedic & sports physical therapy.*
5. Van de Water, A.T. and Speksnijer, C.M., 2010. Efficacy of taping for treatment of plantar fasciosis: a systematic review of controlled trials. *Journal of American Podiatric Med Assoc.*
6. Wheeler, P.C., 2014. The effectiveness and tolerability of tension night splints for the treatment of patients with chronic plantar fasciitis – A case-series study. *International Musculoskeletal Medicine.* 36 (4).
7. A. H. Alghadir (2006) Conservative Treatment of Plantar Fasciitis with dorsiflexion night splints and medial arch supports: A prospective Randomized study. Doctoral Dissertation. University of Pittsburgh
8. Clark and Tighe, *Acupunct Med* 2012; 30:298-306
9. Uden H, Boesch E, Kumar S. Plantar fasciitis - to jab or to support? A systematic review of the current best evidence. *J Multidiscip Healthc* 2011; 4: 155-64.
10. National Institute for Health and Care Excellence (NICE). Autologous blood injection for plantar fasciopathy. NICE interventional procedure guidance 437. London: NICE; 2013.

### Contact details

The Health Information Centre  
Poole Hospital NHS Foundation Trust  
Longfleet Road Poole Dorset  
BH15 2JB  
Telephone: 01202 448003  
[www.poole.nhs.uk](http://www.poole.nhs.uk)

Author: All department, Sarah Jenkins, Ian Kennedy