






Foot and ankle problems

Foot and ankle problems are the fourth most common musculoskeletal reason for presentation in Australian general practice (after back, knee and shoulder complaints). There are multiple causes of foot and ankle pain, reflecting the complex anatomy of the region. GP registrars will be familiar with common traumatic presentations of foot and ankle pain from their ED experience, but will likely be less comfortable managing more chronic problems. GP supervisors can teach their registrars about the common foot and ankle pathologies, including the approach to history, examination, appropriate investigations, and practical management.

TEACHING AND LEARNING AREAS 	<ul style="list-style-type: none"> • Anatomy of the foot and ankle • Common foot and ankle presentations in general practice • Causes of foot and ankle pain in children • Approach to clinical examination of the foot and ankle • Rational investigation of foot and ankle pain, including the Ottawa foot and ankle rules • Practical management of common foot and ankle problems • Indication for, and pathways to, specialist referral 				
PRE-SESSION ACTIVITIES 	<ul style="list-style-type: none"> • Read the chapter in Murtagh's General Practice on 'Pain in the foot and ankle' 				
TEACHING TIPS AND TRAPS 	<ul style="list-style-type: none"> • Flat feet are normal in children • Assessment of footwear is critical in assessing and managing foot and ankle problems • Weight-bearing x-rays are necessary for investigation of many foot problems • Foot strain is the most common cause of foot pain • A dorsal bunion suggests hallux rigidus • Misdiagnosis of navicular stress fractures can lead to delayed or non-union – examination may be normal, and x-rays are poorly sensitive, so MRI or bone scan is usually required • RA predominantly affects the MTPs while spondyloarthropathies predominantly affect the PIPs • Tarsal tunnel syndrome can cause burning pain in the forefoot • Tibialis posterior tendinopathy leads to flatfoot deformity • Tibialis posterior rupture is relatively common and often missed 				
RESOURCES 	<table border="1"> <tr> <td data-bbox="338 1792 438 1870">Read</td><td data-bbox="438 1792 1497 1870"> <ul style="list-style-type: none"> • Heel pain: a practical approach AFP 2015 • The challenge of managing mid-foot pain AFP 2015 </td></tr> <tr> <td data-bbox="338 1870 438 1937">Watch</td><td data-bbox="438 1870 1497 1937"> <ul style="list-style-type: none"> • Ankle and foot examination: McMaster MSK Examination series </td></tr> </table>	Read	<ul style="list-style-type: none"> • Heel pain: a practical approach AFP 2015 • The challenge of managing mid-foot pain AFP 2015 	Watch	<ul style="list-style-type: none"> • Ankle and foot examination: McMaster MSK Examination series
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FOLLOW UP/ EXTENSION ACTIVITIES 	<ul style="list-style-type: none"> • Undertake the clinical reasoning challenge and discuss with supervisor • Registrar to undertake a focused foot and ankle examination on the supervisor 				

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Clinical Reasoning Challenge

Harry, a 39-year old IT consultant, presents to you with a 3-week history of right sided heel pain. Harry has no significant PMH but is obese with a BMI of 31. He has been taking ibuprofen with minimal relief.

QUESTION 1. What are the key features on history? List as many as appropriate.

QUESTION 2. Further history taking is unremarkable. Examination reveals tenderness inferomedial to the right heel and you suspect a diagnosis of plantar fasciitis. What other differential diagnoses need to be considered? List as many as appropriate.

QUESTION 3. What further tests would you arrange to confirm the diagnosis of plantar fasciitis? List as many as appropriate.

QUESTION 4. What are the key elements of evidence-based management of Harry's heel pain at this stage? List up to six.

1.	4.
2.	5.
3.	6.

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ANSWERS

QUESTION 1

What are the key features on history? List as many as appropriate.

- Nature of the pain – SOCRATES assessment
- Unilateral or bilateral pain
- Pain in other joints
- Associated symptoms
- Usual activity/work practice (standing) and any recent change in activity
- Footwear
- Red flags – night pain, trauma, systemic features

QUESTION 2

Further history taking is unremarkable. Examination reveals tenderness inferomedial to the right heel and you suspect a diagnosis of plantar fasciitis. What other differential diagnoses need to be considered? List as many as appropriate.

- Inflammation/atrophy of the heel pad
- Trauma – bone bruise/fracture

QUESTION 3

What further tests would you arrange to confirm the diagnosis of plantar fasciitis? List as many as appropriate.

- Nil required
- Calcaneal spurs are frequently seen on plain foot x-rays but are a normal finding and are not related to the underlying plantar fasciitis

QUESTION 4

What are the key elements of evidence-based management of Harry's heel pain at this stage? List up to six.

1. Reassurance that it will usually resolve but can take 12-18 months
2. Relative rest from exacerbating activities
3. Appropriate footwear
4. NSAIDs
5. Plantar fascia stretching and massage
6. Night splints