

**Foot Pain Scenario:**

A 33-year-old female has come to an outpatient clinic with pain in both of her feet.

Using the Epi-logical approach, what should be the probable diagnoses?

The clinician should consider all differentials in the mind map, except that fracture, gout and cellulitis are quite unlikely.

How should a clinician address urgent/emergent situations?

The patient's BP is 125/85, HR 77, T 98 F and O2sat 97%, her BMI is 33, she appears to be in no acute distress, but she looks uncomfortable with pain. Based upon this information, the patient seems to be stable. The clinician can ask questions about trauma and inspect the patient's feet early on in the evaluation to address urgent/emergent situations.

Weighing and Removing Anchor Bias:

<b>The Clinician's Questions</b>	<b>The Patient's Responses</b>	<b>How does this information help with the diagnostic reasoning process?</b>
I am sorry to hear about your pain. Is it both feet, and where exactly does it hurt?	Yes, both my feet hurt at the bottom, but my left foot hurts much more than the right.	Plantar fasciitis, osteoarthritis, rheumatoid arthritis, metatarsalgia, tarsal tunnel syndrome, and to some degree Morton's neuroma are more likely than gout, cellulitis, fracture and/or pathology in Achilles.
How long has this pain been bothering you?	For quite a while. I would say about 4-6 months.	Gout, cellulitis and fracture are unlikely. The remaining diagnoses, as stated above, remain likely.
Let's look at your feet, and tell me by touching with your hands, where exactly it hurts the most.	The patient removes her socks and shoes. Her feet appear to be normal color, without any appreciable swelling or deformity. She has a slightly high arch, and there are two corns on the plantar aspect of her left foot. She touches the mid-portion of both feet, stating that's where most of the pain is.	Metatarsalgia, osteoarthritis, and tarsal tunnel syndrome are more likely. Plantar fasciitis and Morton's neuroma are now slightly less likely.
Is your pain mostly at night or during the day? Does anything make it better or worse?	It seems to hurt more during the day after work, and I feel better during weekends when I am not on my feet as much.	Osteoarthritis, metatarsalgia and rheumatoid arthritis are more likely. Tarsal tunnel syndrome is slightly less likely, and plantar fasciitis and Morton's neuroma continue to be less likely.

What type of work do you do?	I work as a sales manager at a department store	Overuse/stress can exacerbate any underlying pathology. Nonetheless, this does not change the differentials as such.
What type of footwear do you use?	I am usually in walking shoes, except for formal meetings when I wear heels.	Neutral.
Does this pain feel dull, or burning, or any other quality?	It is definitely a dull deep ache, and not burning.	Neutral.
At this point, the clinician definitely has more evidence in favor of osteoarthritis, rheumatoid arthritis, and metatarsalgia than any other differential. However, the clinician should ask additional questions to avoid anchor bias.		
How does the first step out of bed feel in the morning?	That hurts too, especially in my left foot.	Plantar fasciitis now becomes somewhat likely.
Do you ever feel swelling in your feet or toes?	Not really.	Neutral. Inspection of her footwear may help in management.
Do you have pain or swelling in any other joints in your body?	No, I don't have much problem with other joints.	This information does not support osteo or rheumatoid arthritis, but it does not directly increase the likelihood of any other diagnoses.
Any rash or overall fatigue?	I haven't noticed any rash, and fatigue is no more than usual.	Rheumatoid arthritis is unlikely.
Do you feel numbness or tingling in any part of your feet?	No, I don't feel those symptoms.	Morton's neuroma and tarsal tunnel syndromes continue to be unlikely.
At this point, the clinician has a fairly narrow list of differentials. The physical exam will hopefully help establish the diagnosis.		
Bilateral foot exam	Normal color, calluses at the bottom of both feet, plantar corns on the left foot. Slightly high foot arch. No tenderness on palpation, negative squeeze test, normal range of motion. No tenderness at the insertion of plantar fascia. Normal sensory and motor exam bilaterally.	Osteoarthritis and metatarsalgia are likely. Rheumatoid arthritis and plantar fasciitis are less likely.

At this point, osteoarthritis and metatarsalgia are most likely as primary diagnoses, with corns and calluses causing additional discomfort as secondary diagnoses. Although plantar fasciitis was likely, the lack of tenderness at the fascia insertion makes it quite unlikely.

Nonetheless, plantar fasciitis exercises can be added to a management regimen on an empiric basis because the patient will benefit from these, being at risk for this condition (due to overuse of her feet). Imaging shows arthritic changes in metatarsal joints and the arches bilaterally. Although a clear differentiation between osteoarthritis and metatarsalgia has not been made in this case, practically speaking, both conditions can be managed with similar principles of management. If the pain resolves relatively quickly and does not progress to additional joints, metatarsalgia is more likely. In contrast, relatively difficult to control pain and involvement of additional joints will favor osteoarthritis.