

Foot Pain

CHAPTER 35

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Many practitioners consider the foot a difficult region to treat, largely because the anatomy seems rather complex (Figs 35.1, 35.2). If the foot is considered in its three distinct regions (Fig. 35.1)—the rear foot (calcaneus and talus), the midfoot (the cuneiforms and navicular medially, the cuboid laterally) and the forefoot (the metatarsals and phalanges)—the bony anatomy is greatly simplified. Soft tissue anatomy can be superimposed on the regional division of the foot (Figs 35.2c–e).

In keeping with this anatomical division of the foot, clinical assessment of foot pain is most conveniently considered in three anatomical regions (Fig. 35.1):

- heel pain (arising from the rear foot)
- midfoot pain
- forefoot pain.

Rear foot pain

The most common cause of rear foot (inferior heel) pain is plantar fasciitis. A lay term for this condition is ‘heel spur(s)’. This condition occurs mainly in runners and the older adult, and is often associated with a biomechanical abnormality, such as excessive pronation

or supination. Another common cause of heel pain is the fat pad syndrome or fat pad contusion. This is also known as a ‘bruised heel’ or a ‘stone bruise’.

Less common causes of heel pain are stress fracture of the calcaneus and conditions that refer pain to this area such as tarsal tunnel syndrome (Chapter 34) or medial calcaneal nerve entrapment (Chapter 34). Causes of rear foot pain are listed in Table 35.1.

History

The pain of plantar fasciitis is usually of insidious onset, whereas fat pad damage may occur either as a result of a single traumatic episode (e.g. jumping from a height onto the heel) or from repeated heel strike (e.g. on hard surfaces with inadequate heel support). Plantar fasciitis pain is typically worse in the morning, improves with exercise at first and is aggravated by standing.

Examination

Examination of the patient with inferior heel pain is shown in Figure 35.3. Biomechanical assessment is an important component of the examination and must include ankle, subtalar and midtarsal joint

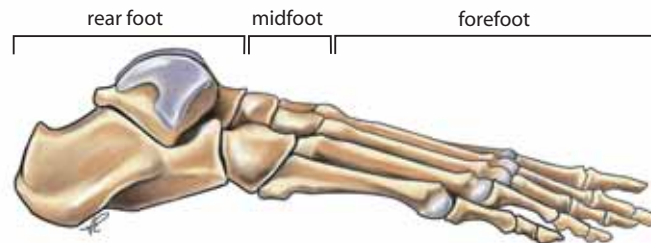


Figure 35.1 The regions of the foot—rear foot, midfoot and forefoot

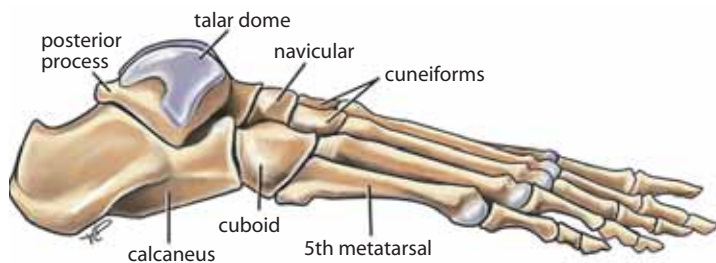
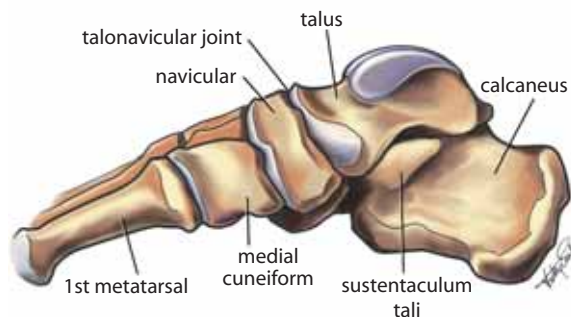
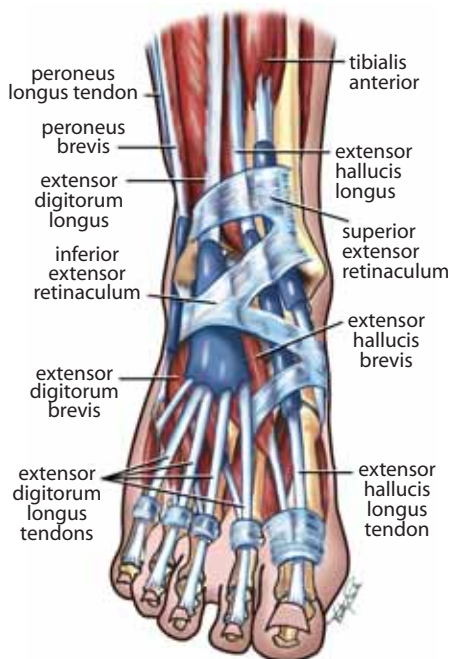


Figure 35.2 Anatomy of the foot

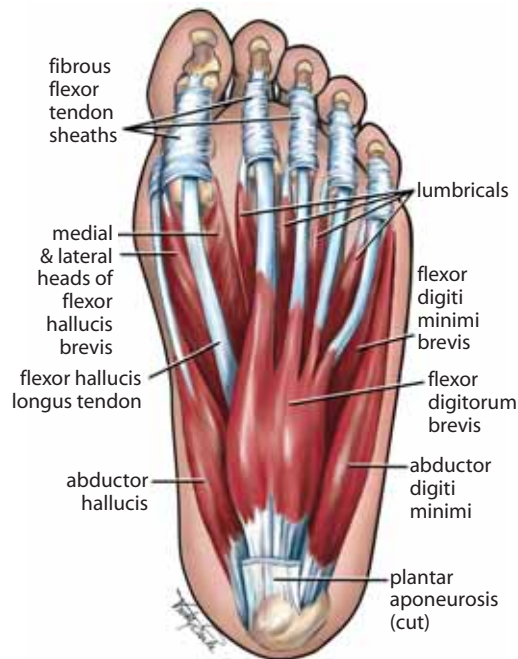
(a) Lateral view of the bones of the foot



(b) Medial view of the bones of the foot



(c) Dorsal view of the soft tissues of the foot



(d) Plantar view of the soft tissues of the foot—first layer



(e) Plantar fascia