



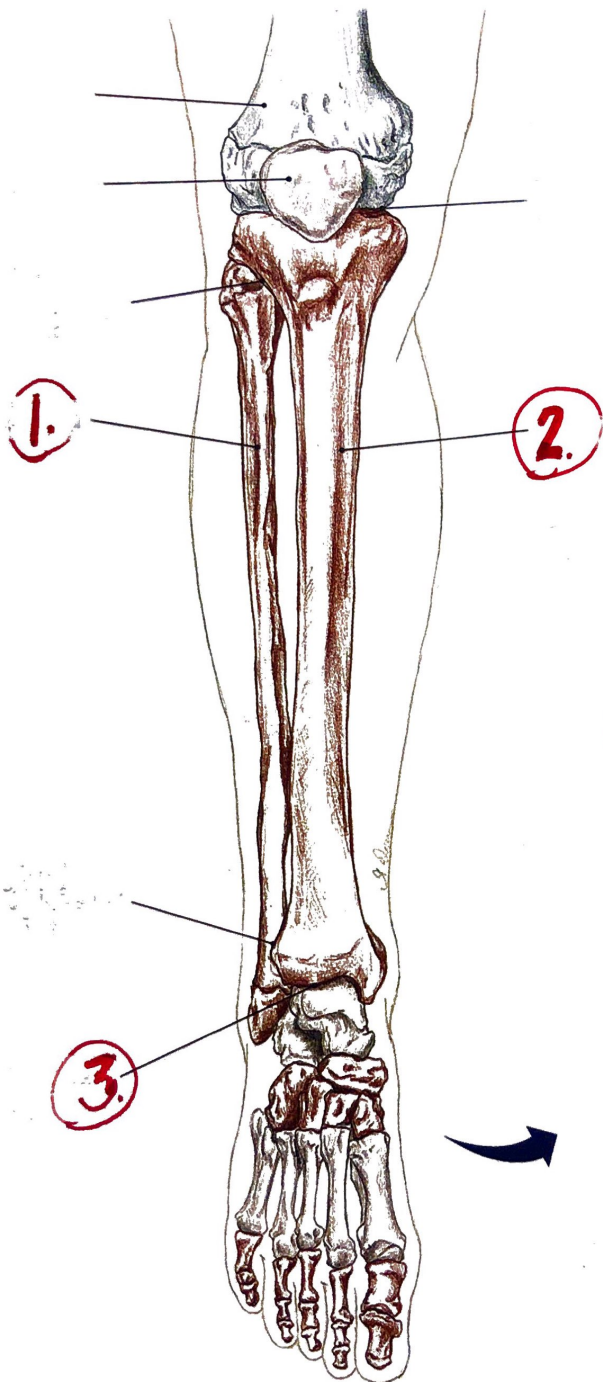
Bones of the Knee, Leg and Foot

A.

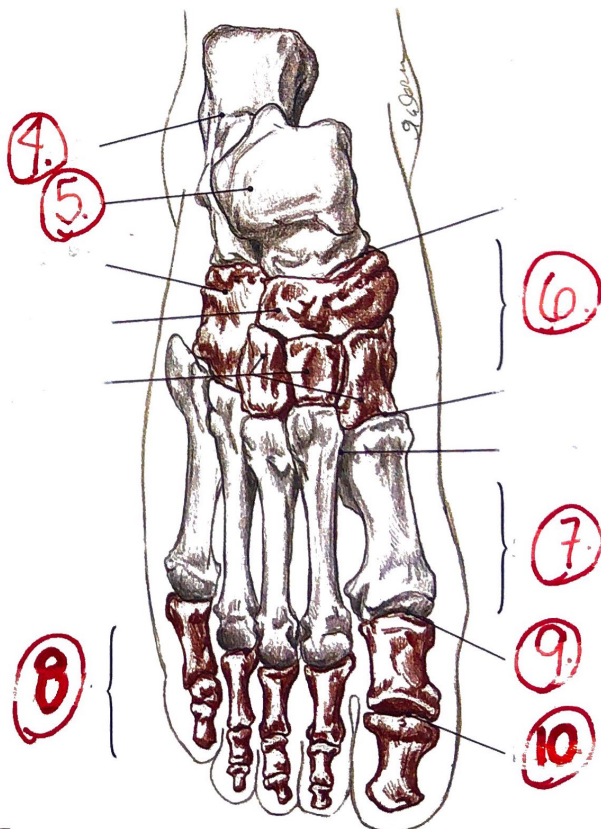
The knee is formed by the articulation of the distal femur and proximal tibia (7.8). The tibiofemoral (knee) joint, the largest synovial joint in the body, is a modified hinge joint. It is capable of flexion and extension; and when the knee is in a flexed position, it can medially and laterally rotate the knee (p. 348).

The region of the knee also includes the small **patella** ("kneecap") and the proximal fibula. The bony surfaces of the knee are superficial and easily accessible.

The **tibia** and **fibula** are the bones of the leg. The tibia ("shinbone") runs superficially from the knee to the ankle just as the ulna runs superficially from the elbow to the wrist. The fibula's relationship to the tibia is also similar to the radius' relationship to the ulna: It is lateral to the tibia and virtually deep to the surrounding muscles. The fibula bears only ten percent of the body's weight and rightfully so: It is the thinnest bone in the body in proportion to its length.



7.8 Anterior view of right leg and foot, foot plantar flexed



7.9 Dorsal view of right foot

Leg & Foot

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Bones and Bony Landmarks of the Ankle and Foot

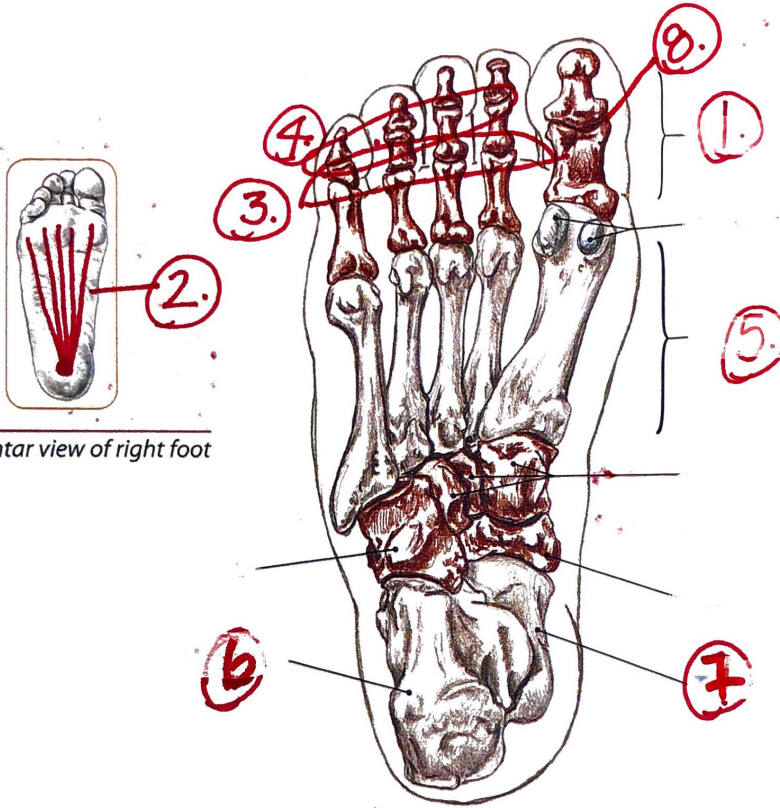
The foot contains twenty-six bones (7.9, 7.26-7.30). The hindfoot is the union of the talus and calcaneus. The **talus** articulates with the tibia and fibula to form the talocrural, or ankle, joint. The large, chunky **calcaneus** is the bone at the heel of the foot.

The midfoot is composed of five tarsals. Small and uniquely shaped, like the carpal bones of the wrist, the

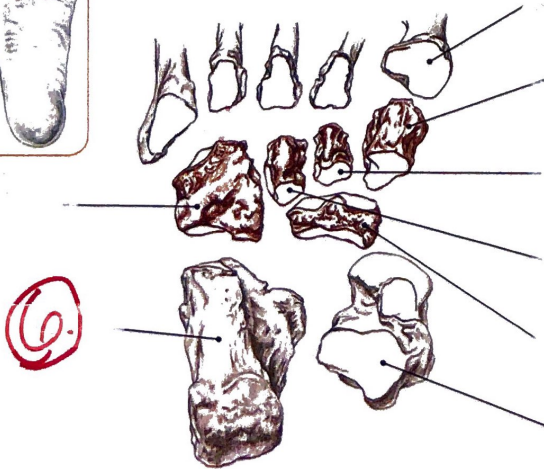
tarsals are tightly wedged together. They are most accessible along the dorsal surface of the foot.

The forefoot is formed by the long, superficial metatarsals and phalanges. Similar to a metacarpal, each **metatarsal** consists of a proximal base, a shaft and a distal head. The first toe is formed by two sizable **phalanges**; the remaining toes have three phalanges each. The phalanges are accessible on all sides.

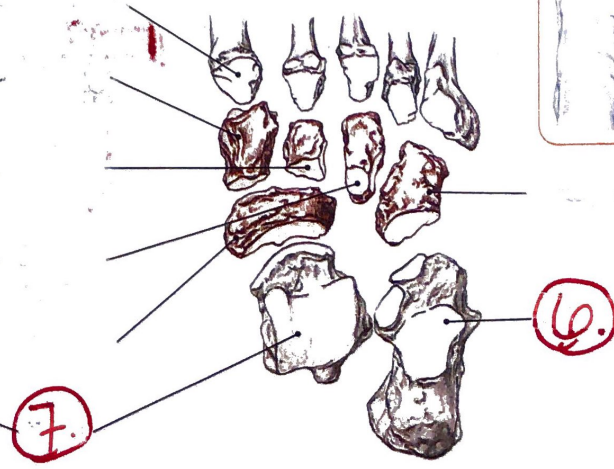
B.1



7.26 Plantar view of right foot

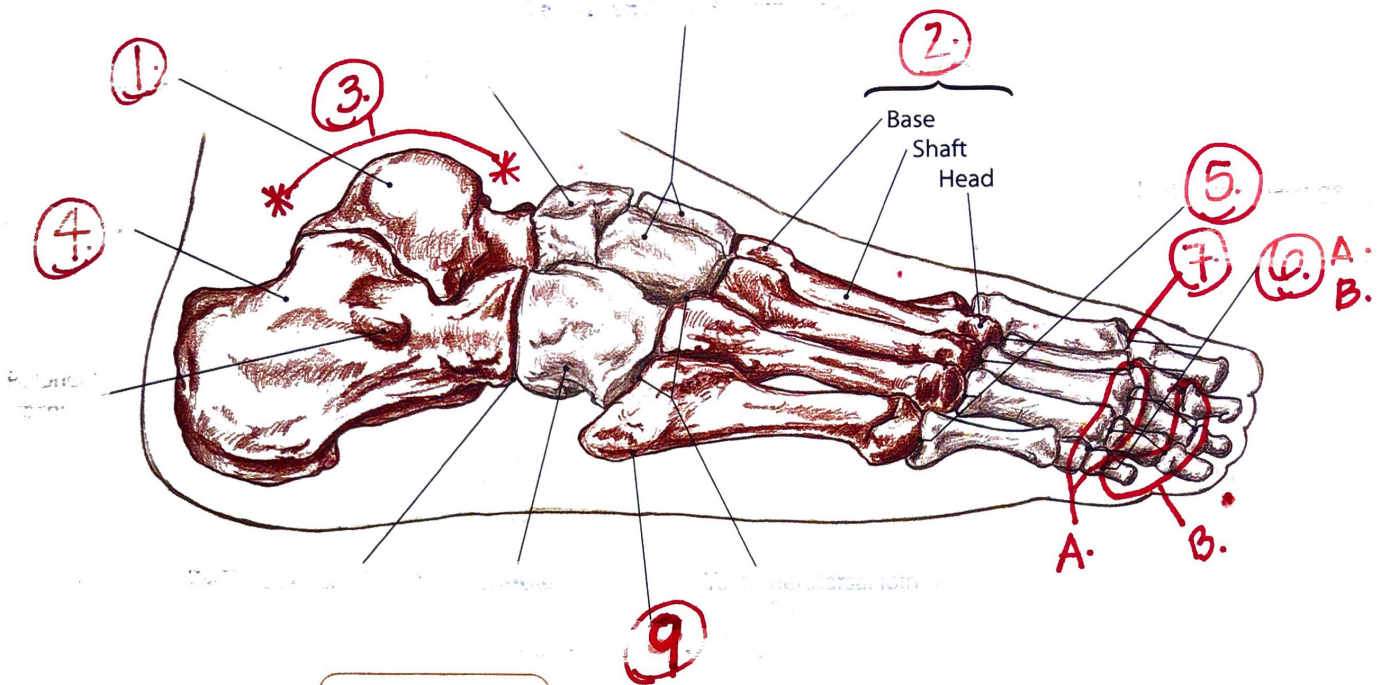


7.27 Plantar view of right foot, bones separated

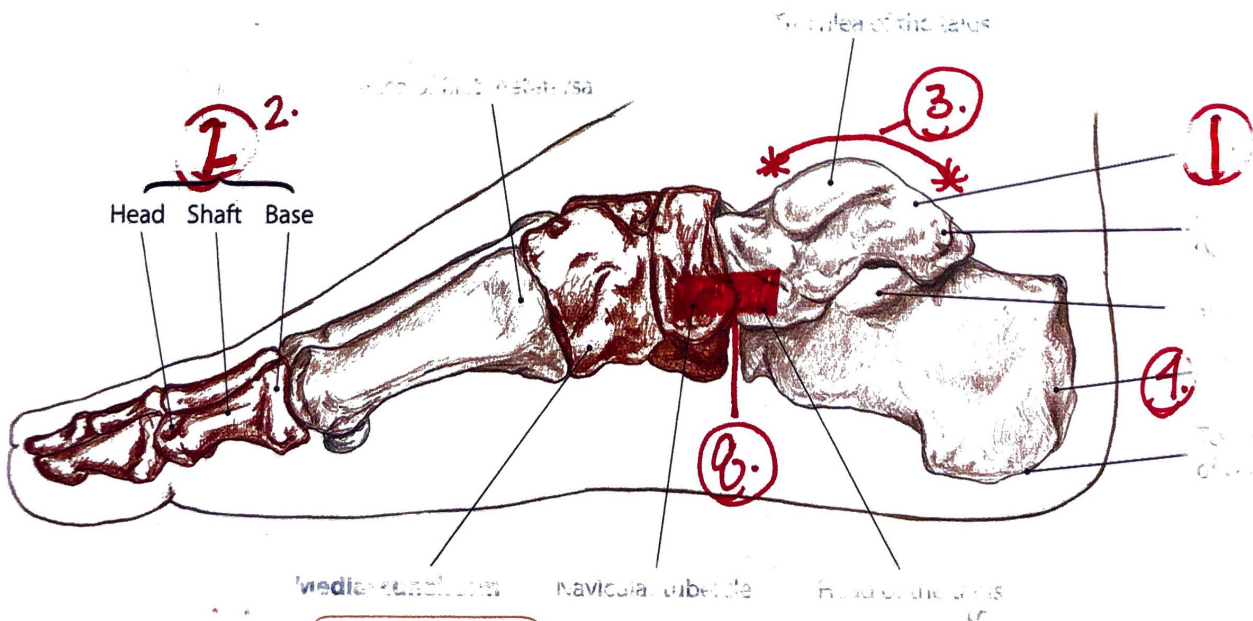


7.28 Dorsal view of right foot, bones separated

C.1



7.29 Lateral view of right foot



7.30 Medial view of right foot