Foot Bones Quiz Answer Key PDF

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How many phalanges are there in the big toe?

A. 1

B. 2 ✓

C. 3

D. 4

What is the total number of bones in the human foot?

A. 24

B. 25

C. 26 ✓

D. 27

Explain the role of the metatarsals in foot mechanics.

The metatarsals are five long bones in the foot that connect the toes to the midfoot. They are essential for maintaining balance, absorbing shock, and allowing for the flexibility and propulsion needed during various activities such as walking, running, and jumping.

Which bone is known as the heel bone?

A. Talus

B. Calcaneus ✓

C. Navicular

D. Cuboid

What are the functions of the foot bones? (Select all that apply)

A. Support body weight ✓

B. Facilitate movement ✓
C. Produce blood cells
D. Absorb shock ✓

Which joint is formed by the talus and calcaneus?

A. Ankle joint
B. Subtalor joint ✓
C. Metatarsophalangeal joint
D. Tarsometatarsal joint

Which structures support the foot's arches? (Select all that apply)

A. Ligaments ✓
B. Tendons ✓
C. Muscles ✓
D. Cartilage

Which bones are part of the phalanges? (Select all that apply)

A. Proximal ✓
B. Middle ✓
C. Distal ✓
D. Navicular

Describe the differences in structure and function between the tarsal and metatarsal bones.

The tarsal bones consist of seven bones (talus, calcaneus, navicular, cuboid, and three cuneiforms) that form the ankle and rear foot, providing stability and shock absorption. In contrast, the metatarsal bones are five long bones that connect the tarsals to the phalanges, playing a crucial role in weight-bearing and propulsion during locomotion.

Which bones form the arch of the foot? (Select all that apply)

A. Tarsals ✓
B. Metatarsals ✓
C. Phalanges

D. Cuneiforms ✓

How do the arches of the foot contribute to human locomotion?

The arches of the foot contribute to human locomotion by providing structural support, absorbing shock, and distributing body weight evenly, which helps maintain balance and reduces the risk of injury.

What is the significance of the subtalar joint in foot movement?

The subtalar joint is significant in foot movement as it enables the foot to tilt and rotate, facilitating actions like inversion and eversion.

How does the structure of the phalanges differ between the big toe and the other toes?

The structure of the phalanges differs in that the big toe has two phalanges, whereas the other toes have three.

How many tarsal bones are there in each foot?

A. 5
B. 6
C. 7 ✓
D. 8

Which bone connects the foot to the leg, forming part of the ankle joint?

A. Talus ✓
B. Calcaneus
C. Navicular
D. Cuboid

Which bones are involved in forming the ankle joint? (Select all that apply)

A. Talus ✓
B. Calcaneus
C. Tibia ✓

D. Fibula ✓

Which of the following are tarsal bones? (Select all that apply)

A. Talus ✓
B. Calcaneus ✓
C. Metatarsal
D. Navicular ✓

Which of the following is not a cuneiform bone?

A. Medal
B. Intermediate
C. Lateral
D. Cuboid ✓

Which metatarsal is associated with the big toe?

A. First ✓
B. Second
C. Third
D. Fourth

Discuss the importance of ligaments and tendons in maintaining foot stability.

Ligaments provide stability by holding the bones of the foot together, while tendons facilitate movement by connecting muscles to the bones, both of which are essential for maintaining balance and preventing injuries.