

RELEVANT ANATOMY



In ruminants, the lateral and medial digits of each limb are connected through tough skin and interdigital ligaments until the level of the coronary band, where the distal phalanges of each digit are encased within the hoof.



The distal (interdigital) collateral ligament spans the interdigital space at the level of the distal sesamoid bones and travels over the tendons of the deep digital flexor muscle to the abaxial surfaces of the middle phalanges.



The proximal interdigital ligament connects the axial surfaces of the proximal phalanges.



The distal interphalangeal joint (DIP) of each digit is formed by the articulation of two distal sesamoid bones, the distal phalanx, and the middle phalanx.



There are two bursas associated with the DIP joint. The dorsal bursa lies deep to the tendon of the common digital extensor muscle, and the palmar (plantar) bursa lies deep to the tendons of the deep digital flexor and the distal sesamoid bones and associated ligaments.



The lateral digit bears more weight than the medial digit in the hind limb while the medial digit bears more weight in the forelimb.

Hendrickson, D. and Baird, A. (2014). Turner and McIlwraith's techniques in large animal surgery. 4th ed. Ames, Iowa: John Wiley & Sons, pp.273

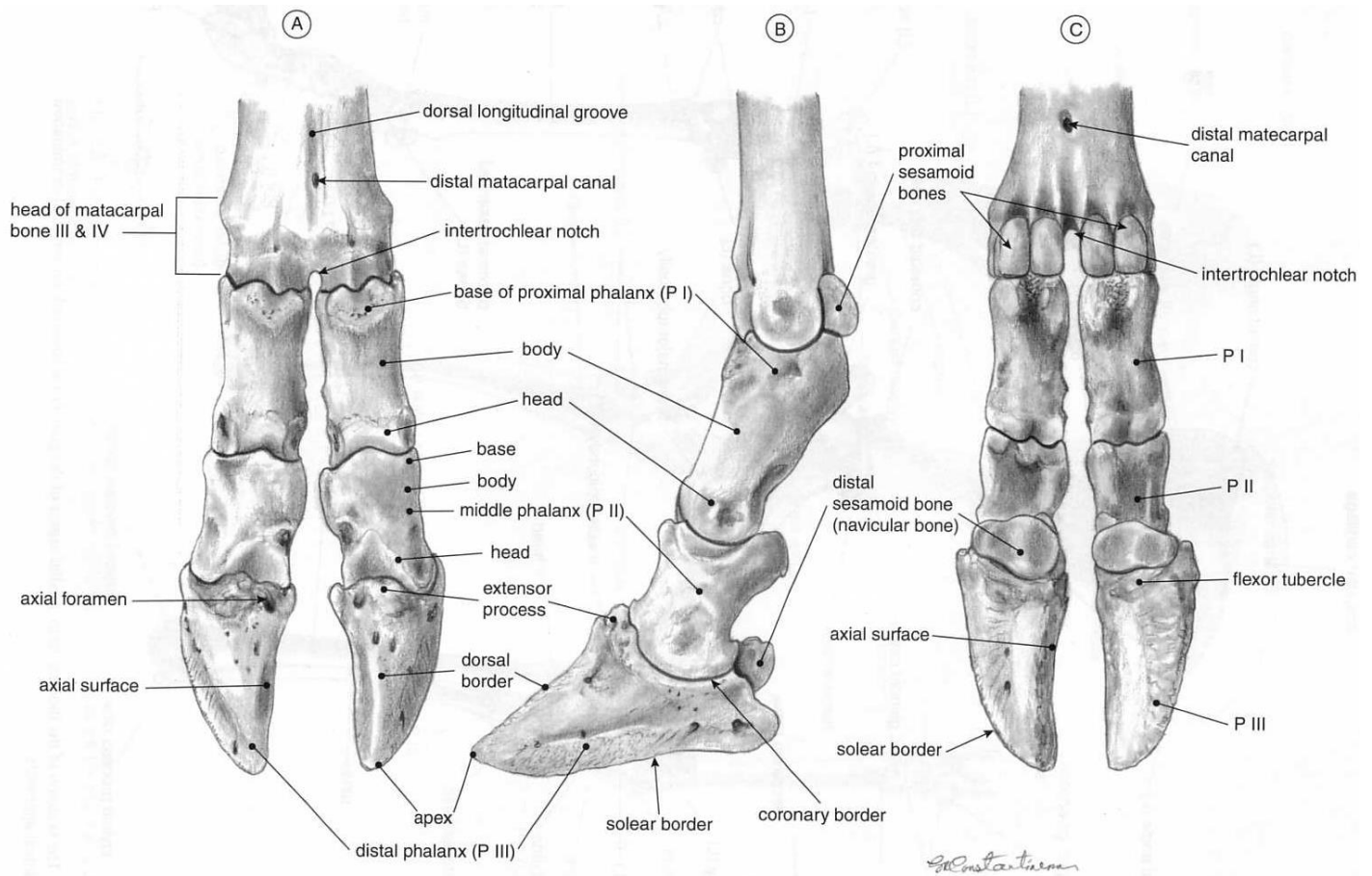


Fig. 2.10. Bones of the digits of the thoracic limb in the large ruminants: A. Dorsal aspect; B. Lateral aspect; C. Palmar aspect.

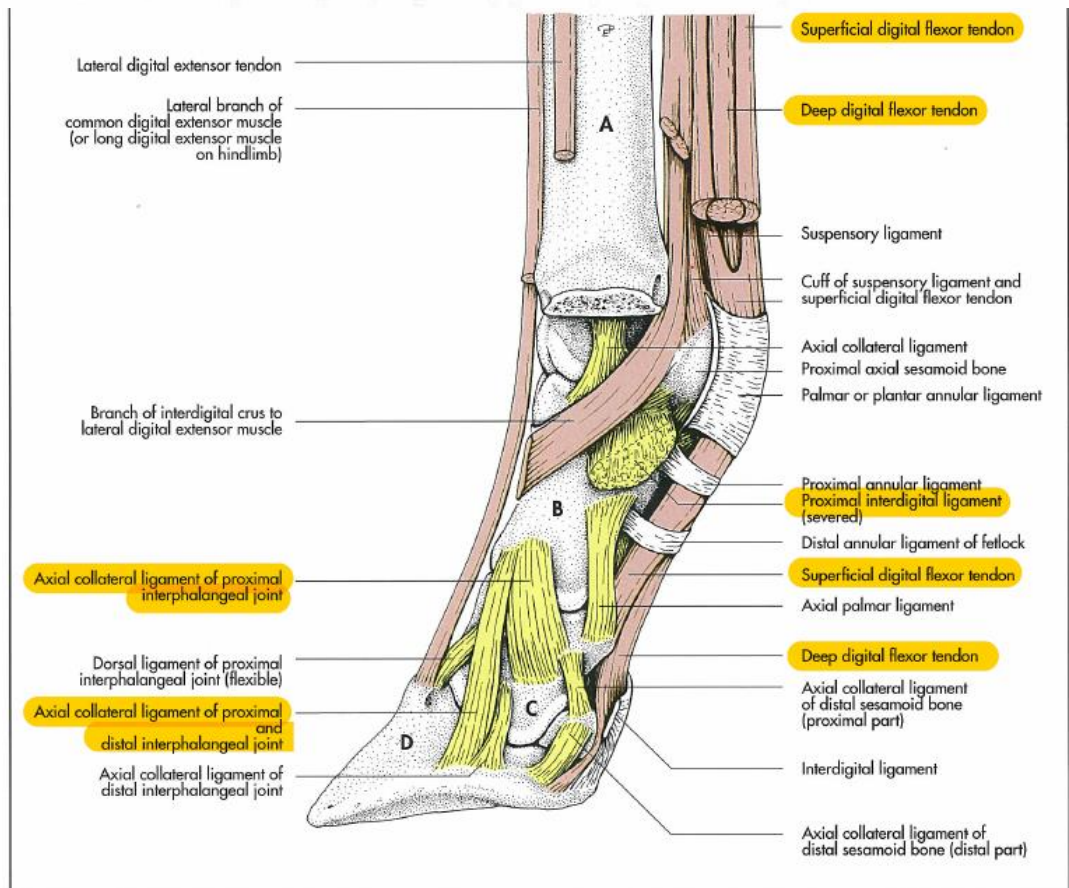


Fig. 3-48. Ligaments and tendons of the left medial front foot of the ox, axial aspect (schematic, A metacarpus, B first phalanx, C second phalanx, D third phalanx) (Ellenberger and Baum, 1943).