**Distal Hindlimb Vasculature**

**The vascular supply to the digit in the pelvic limb is largely the same as in the thoracic limb.**

The caudal branches of the **saphenous artery and medial saphenous vein** continue as the **lateral and medial plantar vessels**, running with the [deep digital flexor tendon](https://en.wikivet.net/Tendons_-_Horse_Anatomy#Flexors), over the sustentaculum tali, to the level of the [metatarsus](https://en.wikivet.net/Limb_Bones_and_Cartilages_-_Horse_Anatomy#Metacarpals_and_Metatarsals). The vein lies superficial to the corresponding artery. In the digit, the medial and lateral digital veins, arteries and nerves lie next to each other in a dorsal to plantar arrangement; this can be remembered as VAN (vein, artery, nerve).

The **medial and lateral plantar vessels** enter the metatarsus to give rise to the **deep plantar arterial and venous arches**; from which the **medial and lateral metatarsal vessels** originate. The medial and lateral metatarsal arteries join the **medial and lateral digital arteries**, which result from the bifurcation of the **dorsal metatarsal artery**, close to the [fetlock](https://en.wikivet.net/Joints_and_Ligaments_-_Horse_Anatomy#Metacarpophalangeal_.28Fetlock.29_Joint). The dorsal metatarsal artery continues as the **short dorsal pedal artery**, which subsequently forms the **cranial tibial artery** on the dorsal [hock](https://en.wikivet.net/Joints_and_Ligaments_-_Horse_Anatomy#Tarsal_Joint). The cranial tibial, dorsal pedal and dorsal metatarsal arteries supply the digit and [hock](https://en.wikivet.net/Hoof_-_Horse_Anatomy).

The **dorsal common digital vein** crosses the medial surface and the **dorsal metatarsal artery** crosses the lateral surface of the [third metatarsal](https://en.wikivet.net/Limb_Bones_and_Cartilages_-_Horse_Anatomy#Metacarpals_and_Metatarsals) (cannon bone) obliquely. The **dorsal common digital vein** joins the **medial plantar** vein in the distal third of the [cannon bone](https://en.wikivet.net/Limb_Bones_and_Cartilages_-_Horse_Anatomy#Metacarpals_and_Metatarsals). The **medial plantar vein** then becomes the **medial digital vein** at the level of the [metacarpophalangeal](https://en.wikivet.net/Joints_and_Ligaments_-_Horse_Anatomy#Metacarpophalangeal_.28Fetlock.29_Joint) (fetlock) joint. At this level, the medial plantar vein anastamoses with the **lateral plantar vein** via the **distal deep plantar arch**.

The **medial and lateral digital arteries** run on their corresponding sides of the digit, forming **dorsal and plantar branches** to the [proximal phalanx](https://en.wikivet.net/Phalanges_-_Horse_Anatomy#Proximal_Phalanx) and [middle phalanx](https://en.wikivet.net/Phalanges_-_Horse_Anatomy#Middle_Phalanx). These branches anastamose with each other to form **arterial circles** around the [proximal](https://en.wikivet.net/Phalanges_-_Horse_Anatomy#Proximal_Phalanx) and [middle](https://en.wikivet.net/Phalanges_-_Horse_Anatomy#Middle_Phalanx) phalanges.

The **dorsal branch of the lateral and medial digital arteries** arises at the level of the [distal phalanx](https://en.wikivet.net/Phalanges_-_Horse_Anatomy#Distal_Phalanx). It runs though the foramen/notch in the plantar process of the [distal phalanx](https://en.wikivet.net/Phalanges_-_Horse_Anatomy#Distal_Phalanx)into the parietal groove. The digital arteries continue to the solar surface and enter the solar foraminae on either side to anastamose within the bone, forming the **terminal arch**. Branches of the terminal arch run in osseous canals to the parietal surface, where they supply the laminar dermis. Some branches also emerge close to the solar margin and anastamose to form an artery that follows this margin.

**Digital veins** are satellite to the arteries down to and into the [distal phalanx](https://en.wikivet.net/Phalanges_-_Horse_Anatomy#Distal_Phalanx), but not all the branching arteries are accompanied by veins. There is a dense **venous plexus** in the coronary and laminar dermis of the sole which drains into the **medial and lateral digital veins** via many smaller veins. Most of these veins lie subcutaneously, just proximal to the [hoof](https://en.wikivet.net/Hoof_-_Horse_Anatomy), others run directly to the digital veins from the axial surface of the [ungual cartilages](https://en.wikivet.net/Hoof_-_Horse_Anatomy#Ungual_Cartilages).

