Nerves and blood vessels of foot

Dorsum of foot is supplied by dorsalis pedis artery which is branch of anterior tibial artery.
While sole of foot is supplied by planters arteries which are terminal branches of posterior tibial artery.

Lateral plantar nerve (13) and Medial plantar nerve (4), innervate the muscles and skin of the plantar side.
Plantar arteries and veins (15,16, 3, 4) are involved in blood supply and venous drainage of the plantar region of the foot.
Medial plantar n. 
Sensory innervation of the sole of the foot, including sides of 1st, 2nd, 3rd, and 4th toes, and medial aspect of the 4th toe, as well as joints of the tarsus and metatarsus of the related toes.

Proper plantar digital aa.

Common plantar digital aa.

Plantar metatarsal aa.

Plantar arch

Lateral plantar n. 
Sensory innervation of the 5th toe and lateral aspect of the 4th toe; supplies deep mm. of foot.

Anterior tibial a.

Anterior and posterior medial malleolar aa.

Superficial and deep peroneal n.

Tibial n.

Posterior tibial a.

Saphenous n.

Sural n.
A Deep layer of sole of foot

B-G Variants of arteries of sole of foot (after Lippert)
ARteries of Sole

4 Distal Perforating A.
4 Plantar Metatarsal A.
Plantar Arterial arch
Lat. Plantar A.
Dorsalis Pedis A.
Prox. Perforating A.
Med. Plantar A.
ARTERIES OF SOLE

- Posterior Tibial A.
- Med. Plantar A.
- Lat. Plantar A.
- Deep Plantar arch
- Terminal Br. of deep plantar A.
- Perforating vessels
- Plantar Metatarsal A.
- Digital Branch
Vessels and nerves pierce the margins of Middle part of plantar aponeurosis to supply skin
Transverse section through sole of right foot

Dorsalis Pedis A.

4th layer

Metatarsal - 1

3rd layer

2nd layer

1st layer

3 Prox. Perforating A

Metatarsal - 5

Deep Br. Of Lat. Plantar art.

Trunk of Lateral Plantar art.
NERVES OF SOLE

Tibial nerve

Med. Plantar Nerve

Lat. Plantar Nerve
To Flex. Dig. Accessorius
To Abd. Digiti Minimi

Br. to Abd. Hallucis
Br. to Flex. Dig. Brevis
Deep Branch
Superficial Branch

Br. to Flex. Hal. Brevis

1st Lumbrical
2nd Lumbrical
To Flex. Dig. Min. Brevis & Muscles of 4th interos. space
Tibial nerve

Med. Plantar Nerve

Deep Branch

Lat. Plantar Nerve

Superficial Branch

NERVES OF SOLE
Cutaneous distribution of sole of foot

- Med. Plantar Nerve
- Lat. Plantar Nerve
- Sural Nerve
- Saphenous Nerve
- Tibial Nerve