

The **sural nerve** (*n. suralis*; *short saphenous nerve*), formed by the junction of the medial sural cutaneous with the peroneal anastomotic branch, passes downward near the lateral margin of the tendo calcaneus, lying close to the small saphenous vein, to the interval between the lateral malleolus and the calcaneus. It runs forward below the lateral malleolus, and is continued as the **lateral dorsal cutaneous nerve** along the lateral side of the foot and little toe, communicating on the dorsum of the foot with the intermediate dorsal cutaneous nerve, a branch of the superficial peroneal. In the leg, its branches communicate with those of the posterior femoral cutaneous.

The **medial calcaneal branches** (*rami calcanei mediales*; *internal calcaneal branches*) perforate the laciniate ligament, and supply the skin of the heel and medial side of the sole of the foot.

The **medial plantar nerve** (*n. plantaris medialis*; *internal plantar nerve*) (Fig. 833), the larger of the two terminal divisions of the tibial nerve, accompanies the medial plantar artery. From its origin under the laciniate ligament it passes under cover of the Abductor hallucis, and, appearing between this muscle and the Flexor digitorum brevis, gives off a proper digital plantar nerve and finally divides opposite the bases of the metatarsal bones into three common digital plantar nerves.

BRANCHES.—The branches of the medial plantar nerve are: (1) **cutaneous**, (2) **muscular**, (3) **articular**, (4) a **proper digital nerve** to the medial side of the great toe, and (5) **three common digital nerves**.

The **cutaneous branches** pierce the plantar aponeurosis between the Abductor hallucis and the Flexor digitorum brevis and are distributed to the skin of the sole of the foot.

The **muscular branches** supply the Abductor hallucis, the Flexor digitorum brevis, the Flexor hallucis brevis, and the first Lumbricalis; those for the Abductor hallucis and Flexor digitorum brevis arise from the trunk of the nerve near its origin and enter the deep surfaces of the muscles; the branch of the Flexor hallucis brevis springs from the proper digital nerve to the medial side of the great toe, and that for the first Lumbricalis from the first common digital nerve.

The **articular branches** supply the articulations of the tarsus and metatarsus.

The **proper digital nerve of the great toe** (*nn. digitales plantares proprii*; *plantar digital branches*) supplies the Flexor hallucis brevis and the skin on the medial side of the great toe.

The **three common digital nerves** (*nn. digitales plantares communes*) pass between the divisions of the plantar aponeurosis, and each splits into two proper digital nerves—those of the first common digital nerve supply the adjacent sides of the great and second toes; those of the second, the adjacent sides of the second and third toes; and those of the third, the adjacent sides of the third and fourth toes. The third common digital nerve receives a communicating branch from the lateral plantar nerve; the first gives a twig to the first Lumbricalis. Each proper digital nerve gives off cutaneous and articular filaments; and opposite the last phalanx sends upward a dorsal branch, which supplies the structures around the nail, the continuation of the nerve being distributed to the ball of the toe. It will be observed that these digital nerves are similar in their distribution to those of the median nerve in the hand.

The **Lateral Plantar Nerve** (*n. plantaris lateralis*; *external plantar nerve*) (Fig. 833) supplies the skin of the fifth toe and lateral half of the fourth, as well as most of the deep muscles, its distribution being similar to that of the ulnar nerve in the hand. It passes obliquely forward with the lateral plantar artery to the lateral side of the foot, lying between the Flexor digitorum brevis and Quadratus plantæ; and, in the interval between the former muscle and the Abductor digiti quinti, divides into a superficial and a deep branch. Before its division, it supplies the Quadratus plantæ and Abductor digiti quinti.