

Nerves

I. Dorsal rami L1–3 & S1–3

function – sensory & postganglionic sympathetic innervation of skin overlying gluteal region

II. Lumbar plexus

A. Muscular branches

1. Iliacus

function – sensory, postganglionic sympathetic & motor (Imn) innervation

2. Quadratus lumborum

function – sensory, postganglionic sympathetic & motor (Imn) innervation

3. Psoas

function – sensory, postganglionic sympathetic & motor (Imn) innervation

B. Iliohypogastric n. (L1)

function – see Trunk

C. Ilioinguinal n (L1)

function – see Trunk

D. Genitofemoral n. (L1–2, femoral branch)

function – sensory & postganglionic sympathetic innervation of skin over proximal anterior thigh

E. Lateral femoral cutaneous n.

function – sensory & postganglionic sympathetic innervation of the skin overlying the lateral aspect of the thigh

F. Femoral n. (L2–4)

1. Saphenous n.

function – sensory & postganglionic sympathetic innervation of the skin overlying the medial aspect of the leg

2. Intermediate femoral cutaneous nerve

function – sensory & postganglionic sympathetic innervation of the skin overlying the anterior aspect of the thigh

3. Medial femoral cutaneous nerve

function – sensory & postganglionic sympathetic innervation of the skin overlying the medial aspect of the thigh

4. Muscular branches

function – sensory, postganglionic sympathetic & motor (Imn) innervation of the iliacus, pectineus, sartorius, rectus femoris, vastus lateralis, vastus medialis & vastus intermedius muscles

G. Obturator nerve (L2–4)

1. Muscular branches

function – sensory, postganglionic sympathetic & motor (Imn) innervation of the gracilis, adductor brevis, adductor longus, adductor magnus & obturator externus muscles

2. Accessory obturator n.

function – sensory, postganglionic sympathetic & motor (Imn) innervation of the pectineus (when this nerve is present)

3. Cutaneous branch

function – sensory & postganglionic sympathetic innervation of the skin overlying the medial aspect of proximal thigh

III. Sacral Plexus (Lumbosacral Trunk [L4–5] & S1–3)

A. Muscular branches of the plexus

1. Nerve to the piriformis

function – sensory, postganglionic sympathetic & motor (Imn) innervation of the piriformis muscle

2. Nerve to the quadratus femoris

function – sensory, postganglionic sympathetic & motor (Imn) innervation of the quadratus femoris & inferior gemellus m.

3. Nerve to the obturator internus

function – sensory, postganglionic sympathetic & motor (Imn) innervation of the obturator internus & superior gemellus m.

B. Superior gluteal nerve

function – sensory, postganglionic sympathetic & motor (Imn) innervation of the gluteus medius, gluteus minimus & tensor fascia lata m.

C. Inferior gluteal nerve

function – sensory, postganglionic sympathetic & motor (Imn) innervation of the gluteus maximus m.

D. Posterior femoral cutaneous nerve

function – sensory & postganglionic sympathetic innervation of the skin overlying the posterior thigh & popliteal fossa

E. Sciatic nerve – tibial division

1. Muscular branches

function – sensory, postganglionic sympathetic & motor (lmn) innervation of the semimembranosus, semitendinosus, biceps femoris (long head) & adductor magnus m.

2. Tibial nerve

a. Sural n.

function – sensory & postganglionic sympathetic innervation of the skin overlying lateral aspect of the leg & foot

b. Muscular branches

function – sensory, postganglionic sympathetic & motor (lmn) innervation of the gastrocnemius, soleus, plantaris, popliteus, tibialis posterior, flexor digitorum longus & flexor hallucis longus muscles

c. Medial calcaneal branches

function – sensory & postganglionic sympathetic innervation of the skin overlying medial heel

d. Medial plantar n.

function – sensory, postganglionic sympathetic & motor (lmn) innervation of the medial muscles of the plantar surface of the foot (abductor hallucis, flexor digitorum brevis, flexor hallucis brevis & 1st lumbrical), and skin (sensory & postganglionic sympathetic) overlying medial aspect of plantar surface

e. Lateral plantar n.

function – sensory, postganglionic sympathetic & motor (lmn) innervation of the lateral muscles of the plantar surface of the foot abductor digiti minimi, adductor hallucis, flexor digitorum accessorius, flexor digiti minimi, dorsal interossei, palmar interossei & 2nd–4th lumbricals) and skin (sensory & postganglionic sympathetic) over the lateral aspect of the plantar foot

F. Sciatic nerve – peroneal (fibular) nerve

1. Muscular branch to short head of biceps femoris

function – sensory, postganglionic sympathetic & motor (lmn) innervation of the short head of the biceps femoris

2. Common peroneal (fibular) n.

a. Lateral sural n.

function – sensory & postganglionic sympathetic innervation of the skin overlying the lateral aspect of the leg

b. Deep peroneal (fibular) n.

function – sensory, postganglionic sympathetic & motor (lmn) innervation of the tibialis anterior, extensor hallucis longus, extensor digitorum longus & peroneus tertius m., and skin (sensory & postganglionic sympathetic) overlying the dorsal 1st & 2nd toes

c. Superficial peroneal (fibular) n.

function – sensory, postganglionic sympathetic & motor (lmn) innervation of the peroneus longus & brevis m., and skin (sensory & postganglionic sympathetic) overlying distal lateral leg & dorsum of foot