Objectives

To identify divisions of the PNS.
To define ramus and explain their influence.
To define and identify the major plexuses of the PNS.
To introduce the ANS.

Divisions of the PNS

I. Somatic (voluntary)
II. Autonomic (involuntary)
  a.k.a. Visceral

Spinal Nerves

Transmit both sensory (afferent) & motor (efferent) NI.
Serve: Body wall & limbs.
C-T-L-S-c

Rami (pl)

When the nerve leaves the vertebrae, it splits:
I. Posterior ramus:
   Deep muscles
   Posterior trunk.
II. Anterior ramus:
   Superficial back muscles
   Limbs
   Lateral and anterior trunk.

Dermatome: Area of skin innervated by the cutaneous branches of a single spinal nerve (anterior rami).

Plexus

Interlaced nerve networks that occur in: the C, B, L & S regions.
Note: (not found in the T region)
> Primarily serve the limbs.
> Only ventral/anterior rami form the plexuses.

Major Plexuses

Cervical (neck & respiratory)
  most important: Phrenic nerve
Brachial (neck & shoulder)
  most important: Ulnar, Radial
Lumbar (lower limbs, pubic area)
  most important: Femoral
Sacral (leg, foot and buttocks)
  most important: Sciatic
Cervical Plexus

Formed by ventral rami of 1st 4 cervical nerves.

Innervates diaphragm for breathing (M & S fibers)

Nerve Disorders

Neuritis – inflammation of the nerves
Sciatica – pain of lower limb area.

Bell’s Palsy – muscle paralysis seen on one side of the face.

Viral infections:
Herpes
Shingles

Multiple Sclerosis – Autoimmune degeneration of myelin (primarily in Spinal Cord).

Shingles

Source: John Bezzant, M.B.

Assignment for next time

1) CNS - Pg 20B
Use PNS 22 to help you.

2) In the library
Pg 28 & 29 (PNS)

3) Pg 2-14 (key at the bottom of page)