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Question

Discuss the somatosensory pathways

A **somatosensory pathway** will typically have three neurons: primary, secondary, and tertiary. The cell bodies of the three neurons in a typical **somatosensory pathway** are located in the dorsal root ganglion, the spinal cord, and the thalamus. ... A major **somatosensory pathway** is the dorsal column–medial lemniscal **pathway**.

The somatosensory system is distributed throughout all major

parts of our body. It is responsible for sensing touch, temperature, posture, limb position, and more. It includes both sensory receptor neurons in the periphery (eg., skin, muscle, and organs) and deeper neurons within the central nervous system.

Functions

The somatosensory system functions in the body's periphery, spinal cord, and the brain.

- Periphery: Sensory receptors (i.e., thermoreceptors, mechanoreceptors, etc.) detect the various stimuli.
- Spinal cord: Afferent pathways in the spinal cord serve to pass information from the periphery and the rest of the body to the brain.

- Brain: The postcentral gyrus contains Brodmann areas (BA) 3a, 3b, 1, and 2 that make up the somatosensory cortex. BA3a is involved with the sense of relative position of neighboring body parts and the amount of effort being used during movement. BA3b is responsible for distributing somatosensory information to BA1 and shape and size information to BA2
- The main somatosensory pathways that communicate with the cerebellum are the ventral (or anterior) and dorsal (or posterior) spinocerebellar tracts.
- The ventral spinocerebellar tract will cross to the opposite side of the body

then cross again to end in the cerebellum (referred to as a double cross)