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## Posterior Columns

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### Synonyms

[Dorsal columns](#); [Lemniscal system](#)

### Definition

Ascending (sensory) pathways in the dorsal funiculus or posterior portion of the spinal cord. They primarily consist of the fasciculus cuneatus (at upper thoracic and cervical levels) and the fasciculus gracilis (at both upper and lower spinal levels). These posterior column pathways represent uncrossed somatosensory fibers entering the cord from the dorsal nerve roots and carrying

vibratory and proprioceptive information as well as the capacity for stereognostic or fine tactual discrimination (e.g., two-point discrimination) from the upper and lower extremities and trunk. The fasciculi cuneatus and gracilis continue to ascend to the lower medulla of the brainstem where they synapse in their respective nuclei. After synapsing, secondary fibers then cross the midline to form the medial lemniscus which carries this sensory information to the thalamus and eventually to the cerebral cortex. Because the posterior columns represent uncrossed fiber tracts, a lesion affecting one side of the dorsal cord will result in ipsilateral sensory changes. Tabes dorsalis (neurosyphilis) is a disease that selectively attacks the posterior columns.

### Cross-References

- ▶ [Dorsal Nerve Roots](#)
- ▶ [Somatosensory System](#)