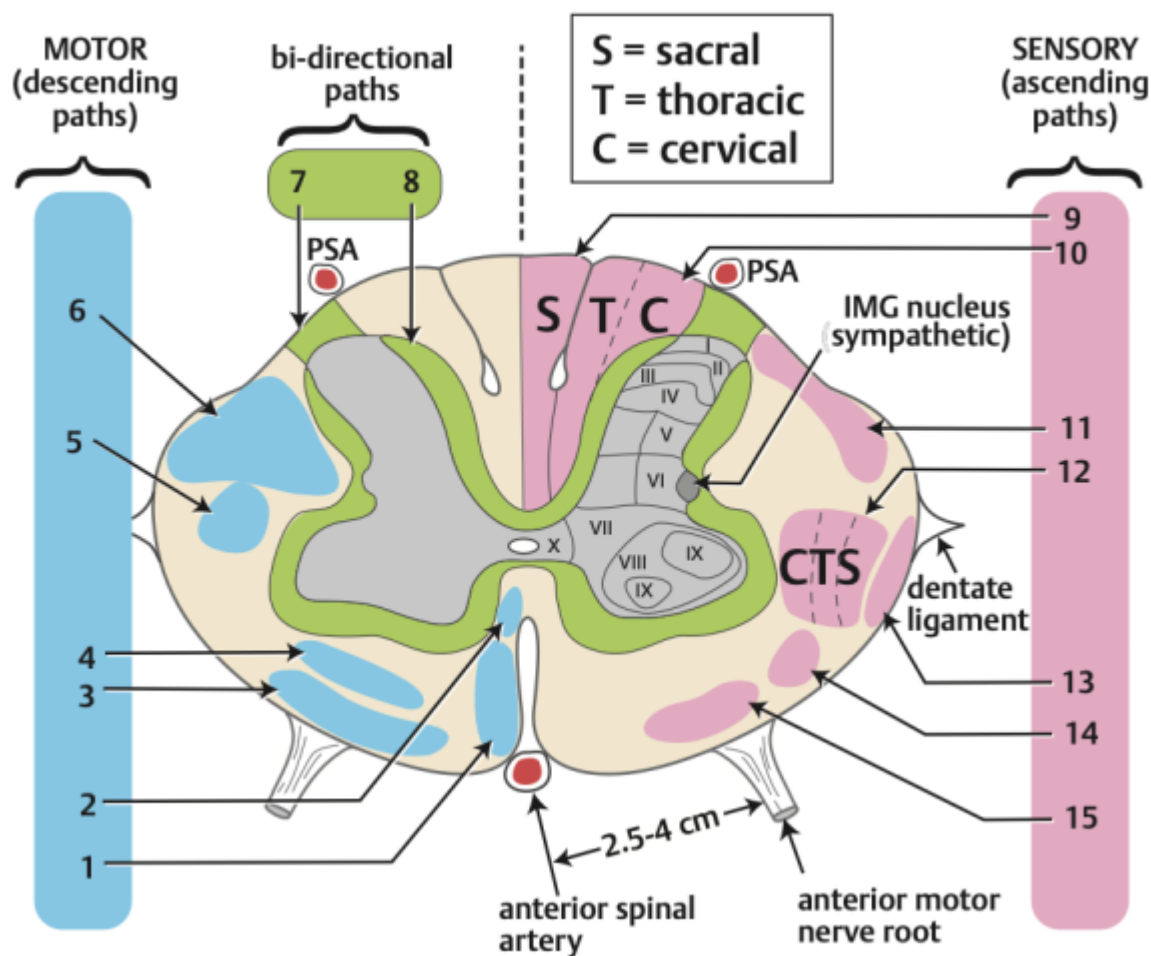


Spinal cord tracts



Descending (Motor) Tracts

| No. | Pathway | Function | Side of Body | Notes |
|-----|--|----------------------------------|--------------|---|
| 1 | Anterior corticospinal tract | Skilled movement | Opposite * | Fibers cross at the anterior white commissure to synapse on alpha motor neurons or interneurons. Some fibers remain ipsilateral. Identifiable only in cervical and upper thoracic levels. |
| 2 | Medial longitudinal fasciculus | ? | Same | Likely involved in coordination of head, neck, and eye movements. No primary motor output defined. |
| 3 | Vestibulospinal tract | Facilitates extensor muscle tone | Same | Critical for posture and balance; acts on axial and extensor muscles. |
| 4 | Medullary (ventrolateral) reticulospinal tract | Automatic respiration? | Same | Involved in muscle tone and automatic movements; may contribute to respiratory rhythm. |

| No. | Pathway | Function | Side of Body | Notes |
|-----|---|--------------------------------|--------------|---|
| 5 | Rubrospinal tract | Facilitates flexor muscle tone | Same | Minimal role in humans; more relevant in quadrupeds. May support fine motor adjustment. |
| 6 | Lateral corticospinal (pyramidal) tract | Skilled voluntary movement | Same | Primary motor tract; decussates at pyramids in medulla. Controls fine distal movements. |

*The terminal fibers of this uncrossed tract usually cross in the anterior white commissure to synapse on alpha motor neurons or on internuncial neurons. A minority of the fibers do remain ipsilateral. Also, an anterior corticospinal tract is easily identified only in the cervical and upper thoracic regions.

see the [intermediolateral gray nucleus](#) is only present from T1 to \approx L1 or L2 where there are sympathetic [thoracolumbar outflow] nuclei). It is schematically divided into ascending and descending halves; however, in actuality, ascending and descending paths coexist on both sides.

The figure also depicts some of the laminae according to the scheme of Rexed. Lamina II is equivalent to the substantia gelatinosa. Laminae III and IV are the nucleus proprius. Lamina VI is located in the base of the posterior horn.

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