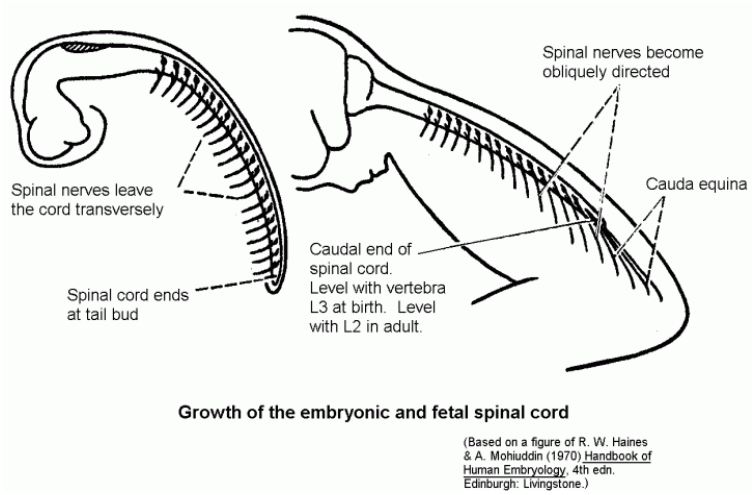
THE SPINAL CORD.

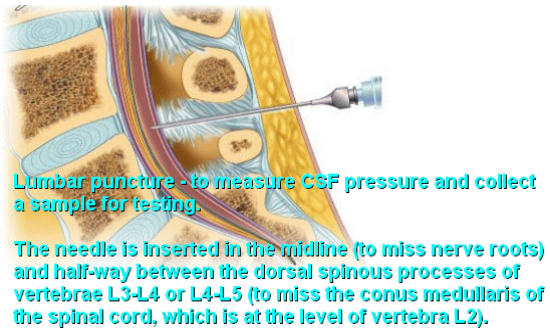
Growth of the developing vertebral column ans spinal cord.



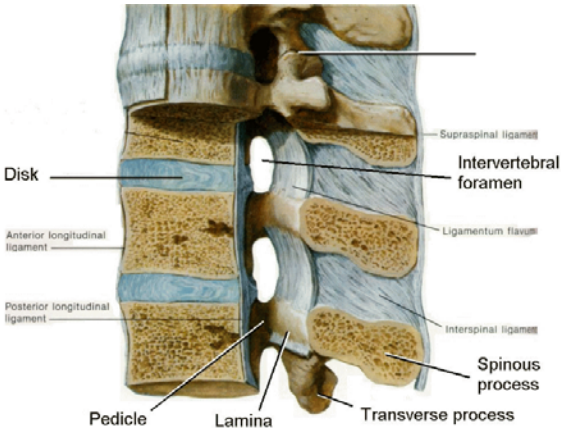
Growth of the embryonic and fetal spinal cord

(Based on a figure of R. W. Haines & A. Mohiuddin (1970) Handbook of Human Embryology, 4th edn. Edinburgh: Livingstone.)

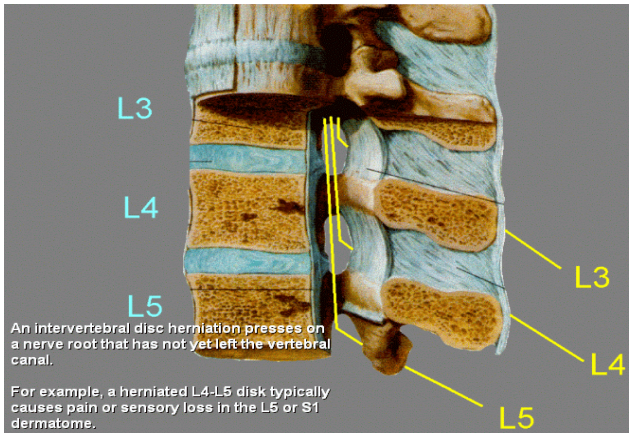
Lumbar puncture (spinal tap).



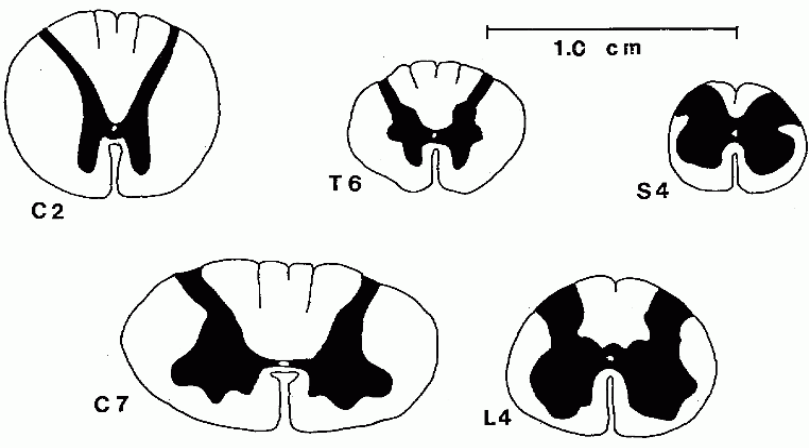
Lumbar spine.



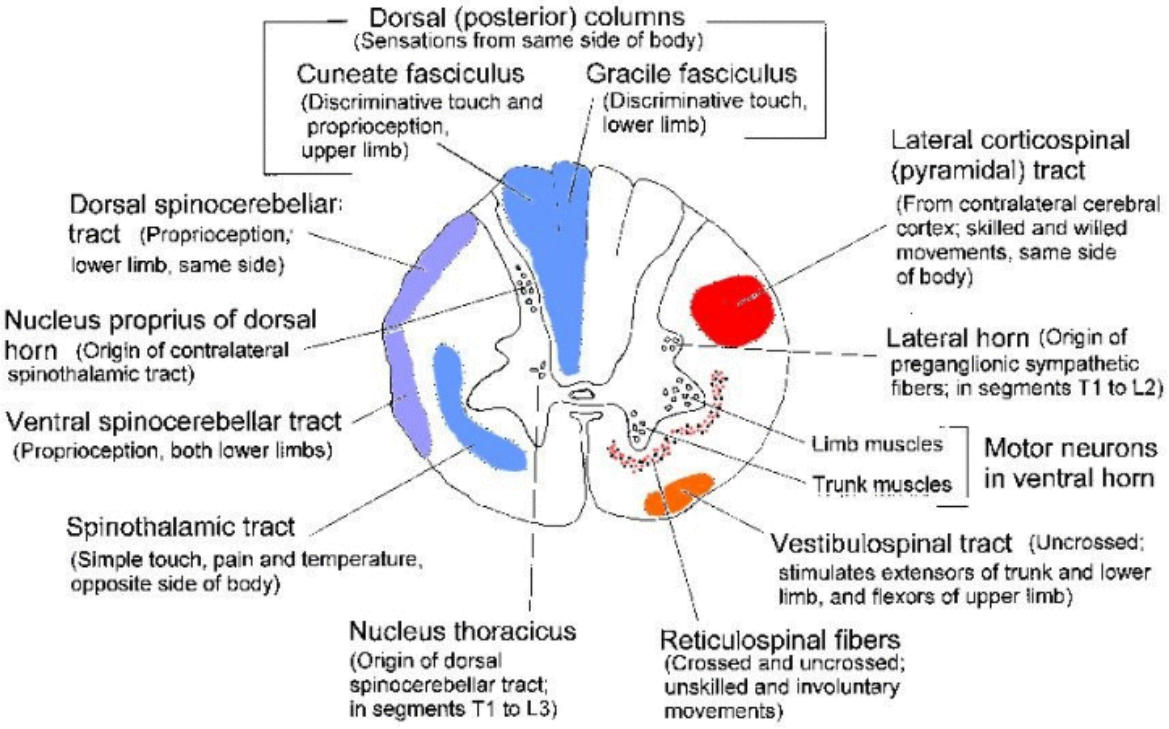
Nerve roots.



Segmental levels.



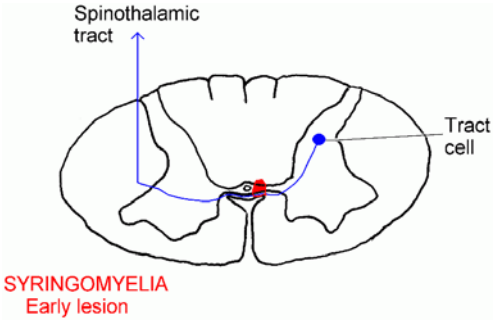
Tracts and cell columns

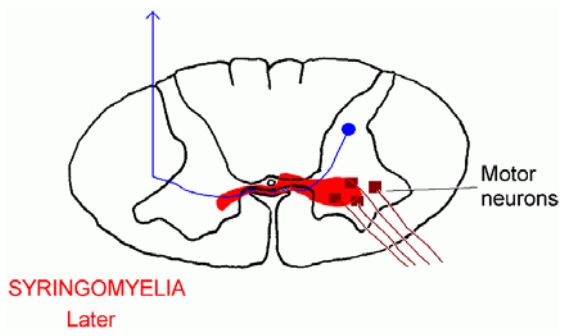


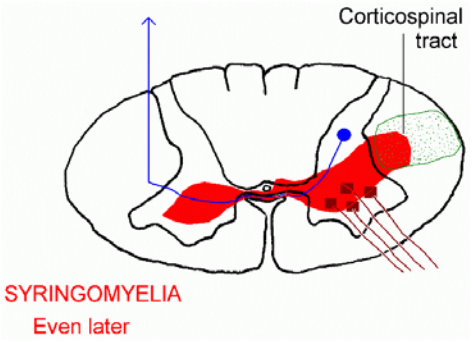
SYRINGOMYELIA

A slowly developing (chronic) disease of the spinal cord. A narrow cavity forms in the centre of the cord, near the central canal, and gradually becomes larger. The lesion typically extends through the middle and lower cervical and the upper few thoracic segments of the spinal cord, which serve the upper limb, especially the hands.

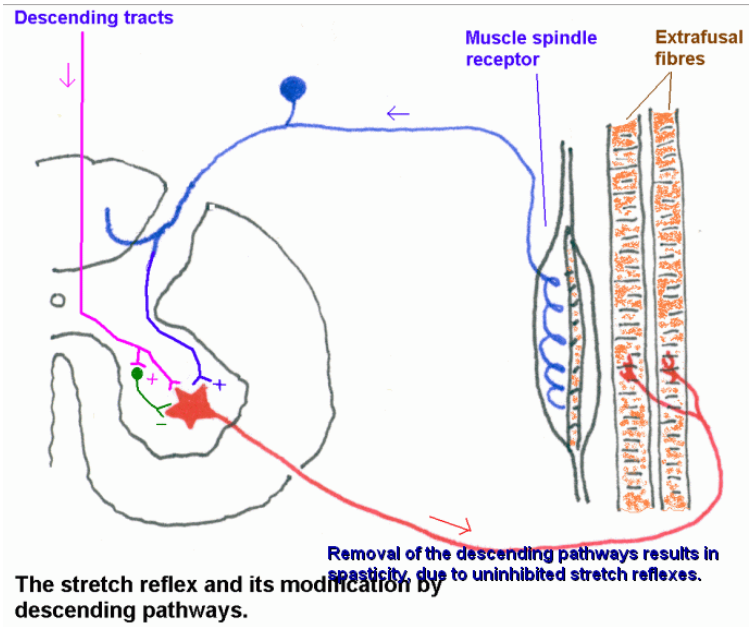
This is not a common disease, but its effects are instructive.







The stretch reflex.



The stretch reflex and its modification by descending pathways.

The overall effect of descending motor pathways is to inhibit the stretch reflex. Damage to the descending pathways can cause spastic paralysis.