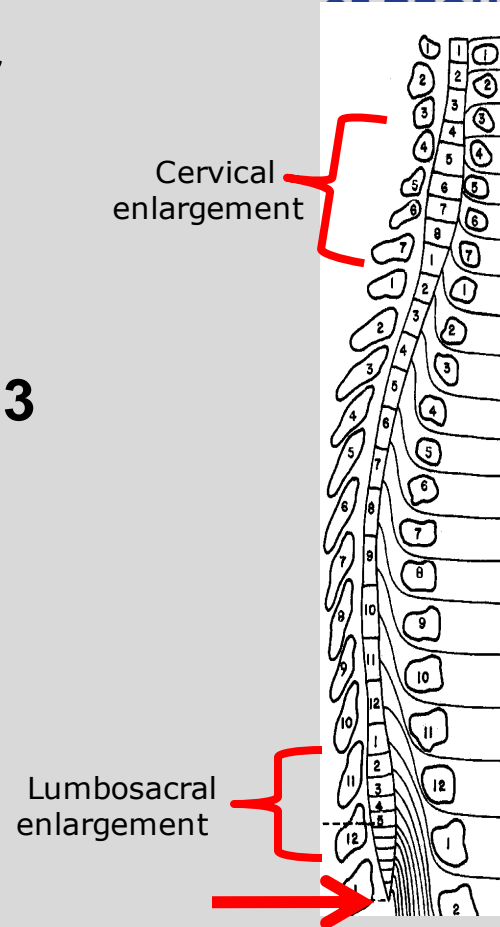


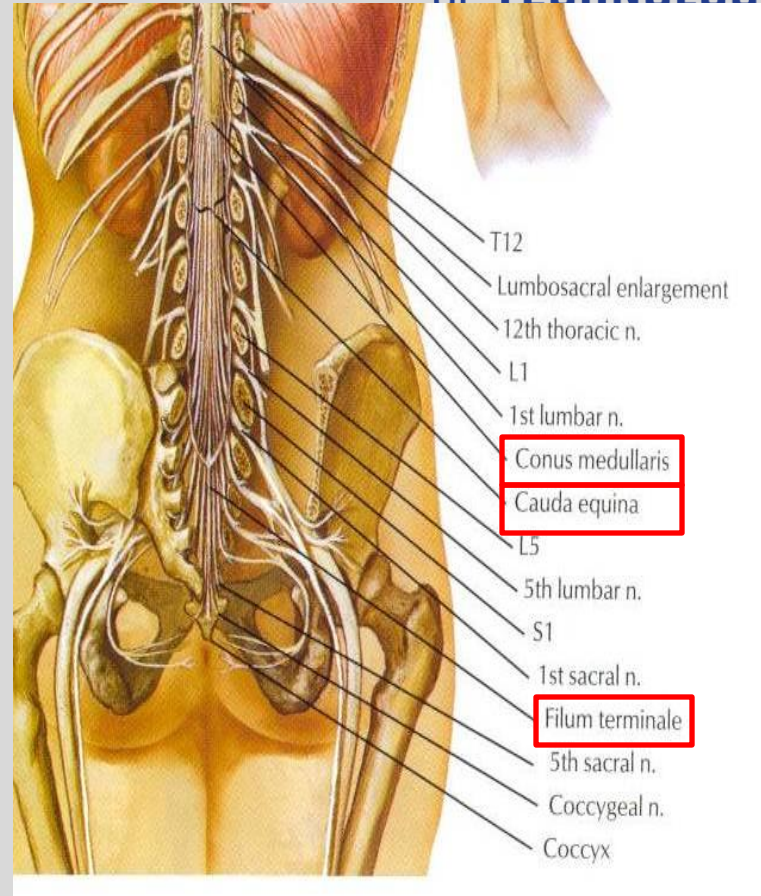
Spinal cord enlargements

- Innervation of the upper and lower extremities
- **Cervical enlargement: C4-T1**
 - spinal nerves of brachial plexus
- **Lumbosacral enlargement: L2-S3**
 - spinal nerves of lumbosacral plexus
- Spinal cord ends around **L1-L2 vertebrae**



Spinal cord development

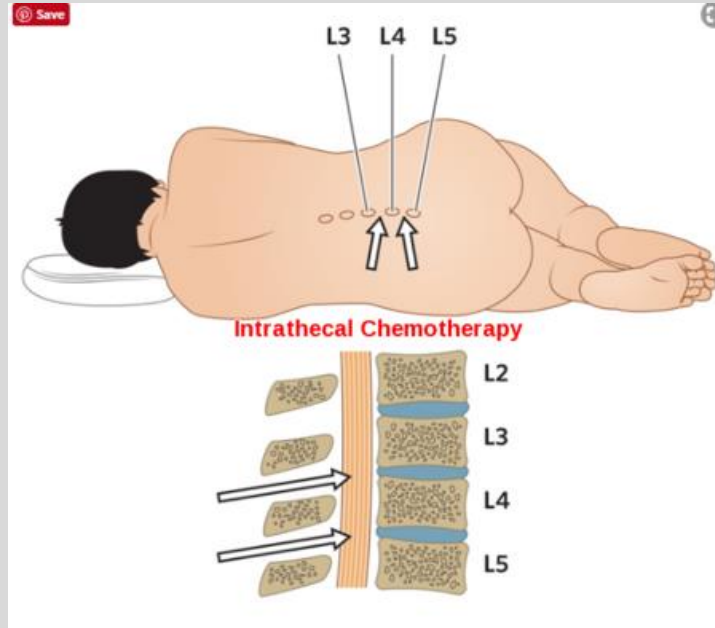
- Until the 3rd month of embryonic life the segments of the spinal cord (neuromeres) correspond with segments of the vertebral column (scleromeres)
- At birth the caudal end of spinal cord is at L2-L3
- By adulthood the caudal end of spinal cord is at **L1-L2**
- **Subarachnoid space** caudal to the end of the spinal cord is the **Lumbar Cistern** which contains roots of lumbar and sacral nerves (**cauda equina**) and cerebral spinal fluid (CSF)



Lumbar puncture

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How to

- sample CSF?
- make intrathecal injections?
- make epidural injections?