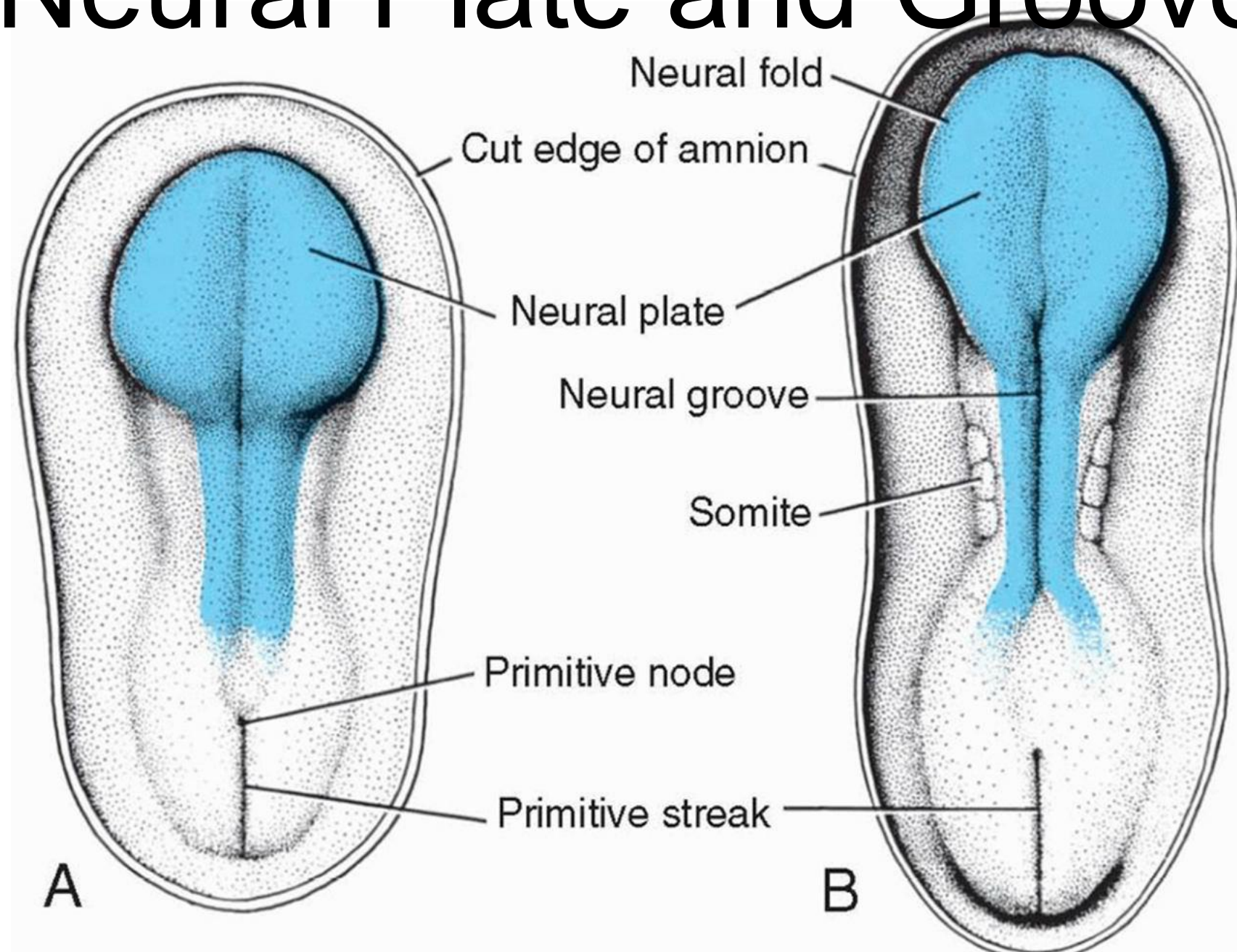


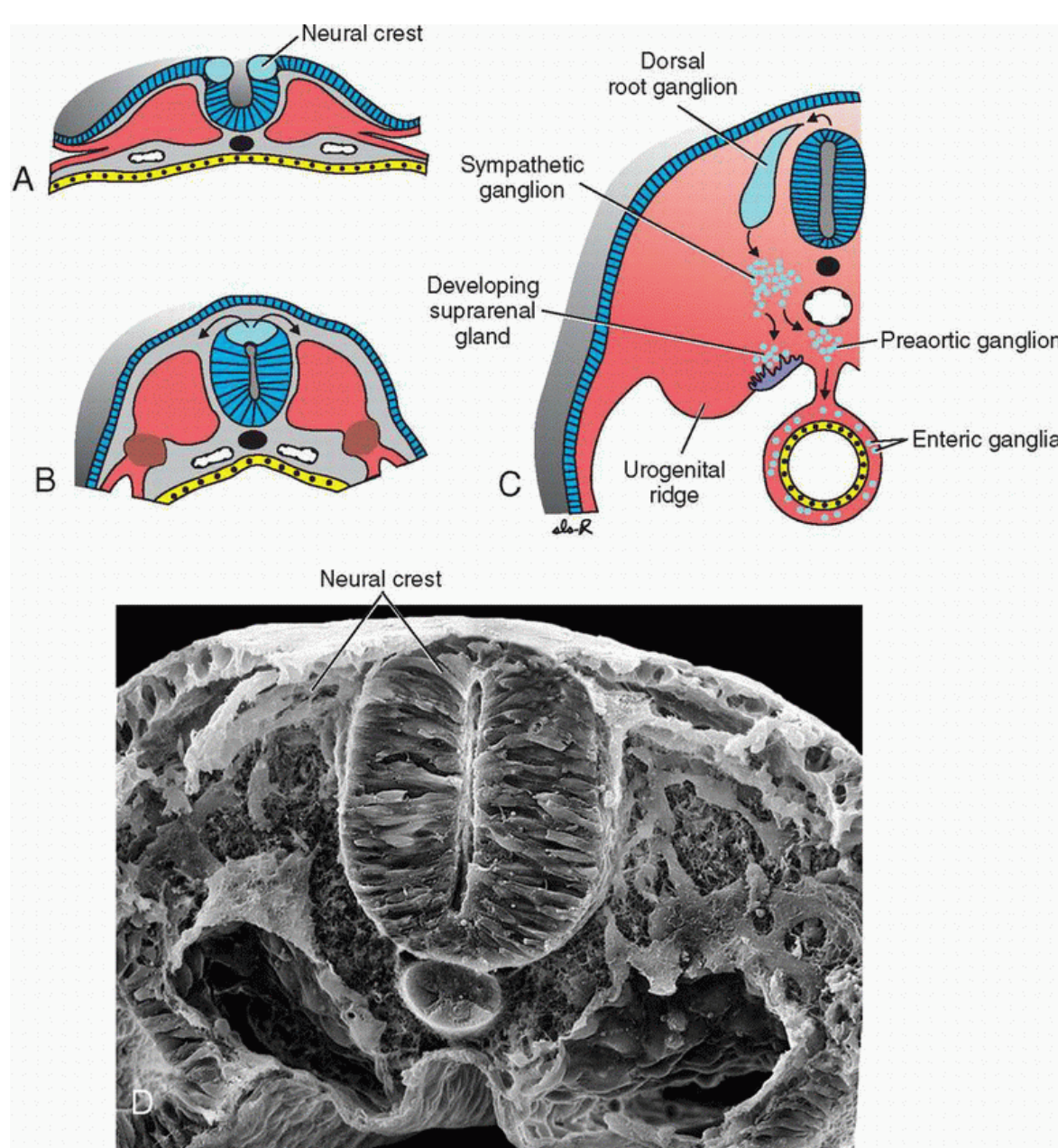
Learning Objectives

- Neuroectoderm
- Neural Plate, Neural groove, Neural Tube
- Neural Crest
- Prosencephalon
- Mesencephalon
- Rhombencephalon
- Flexures
- Alar and basal lamina, Cranial nerve nuclei
- Clinical Correlates

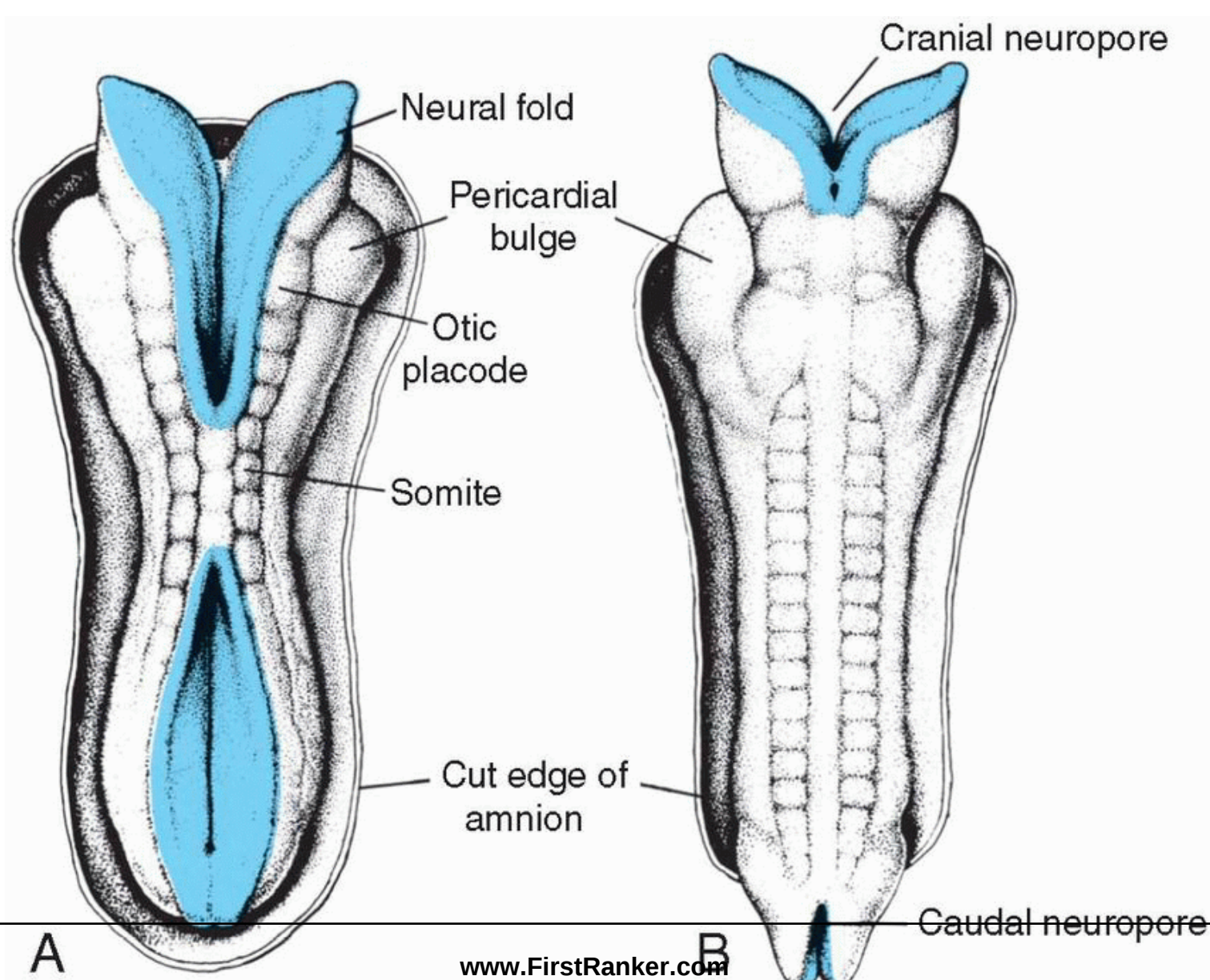
Neural Plate and Groove



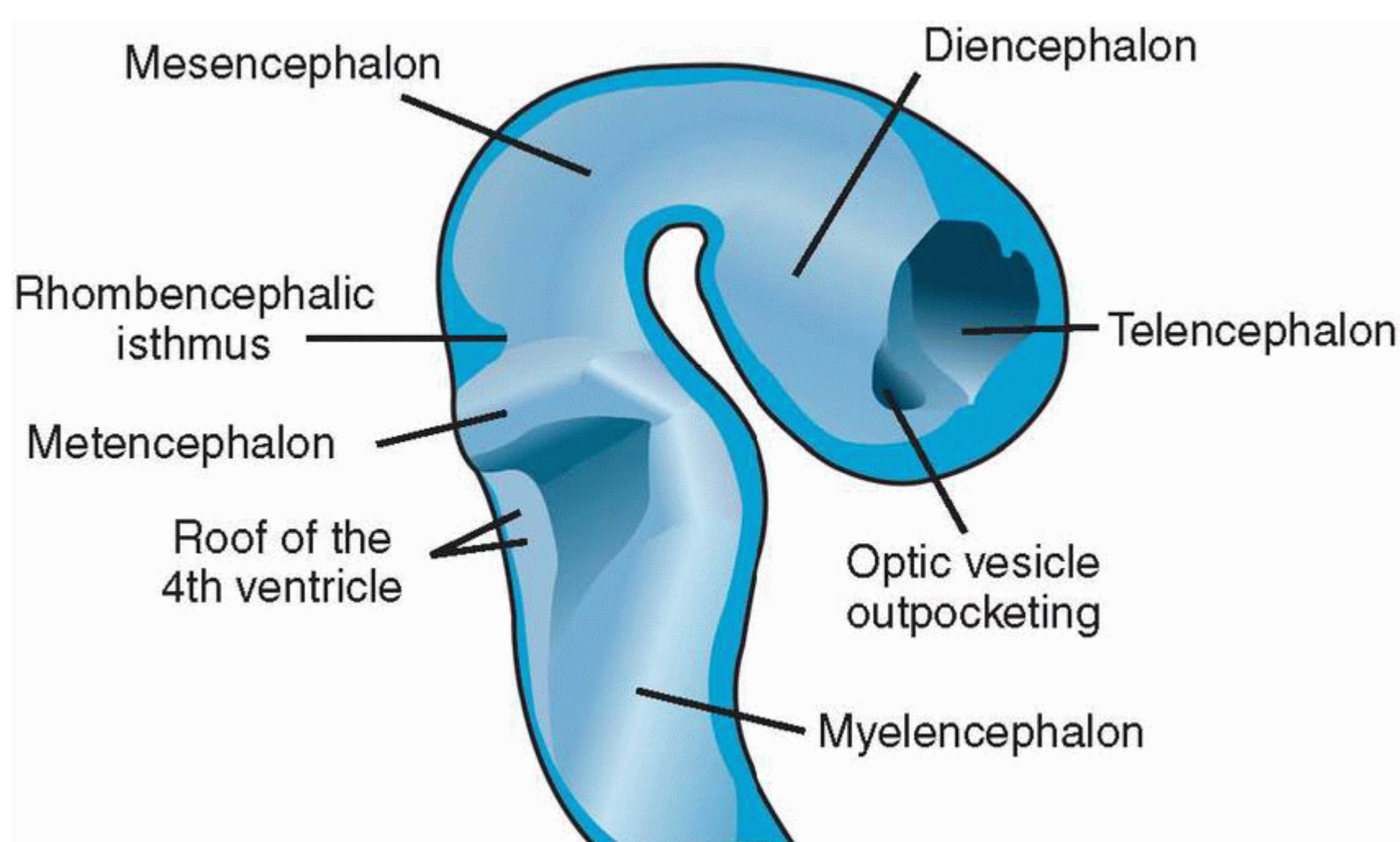
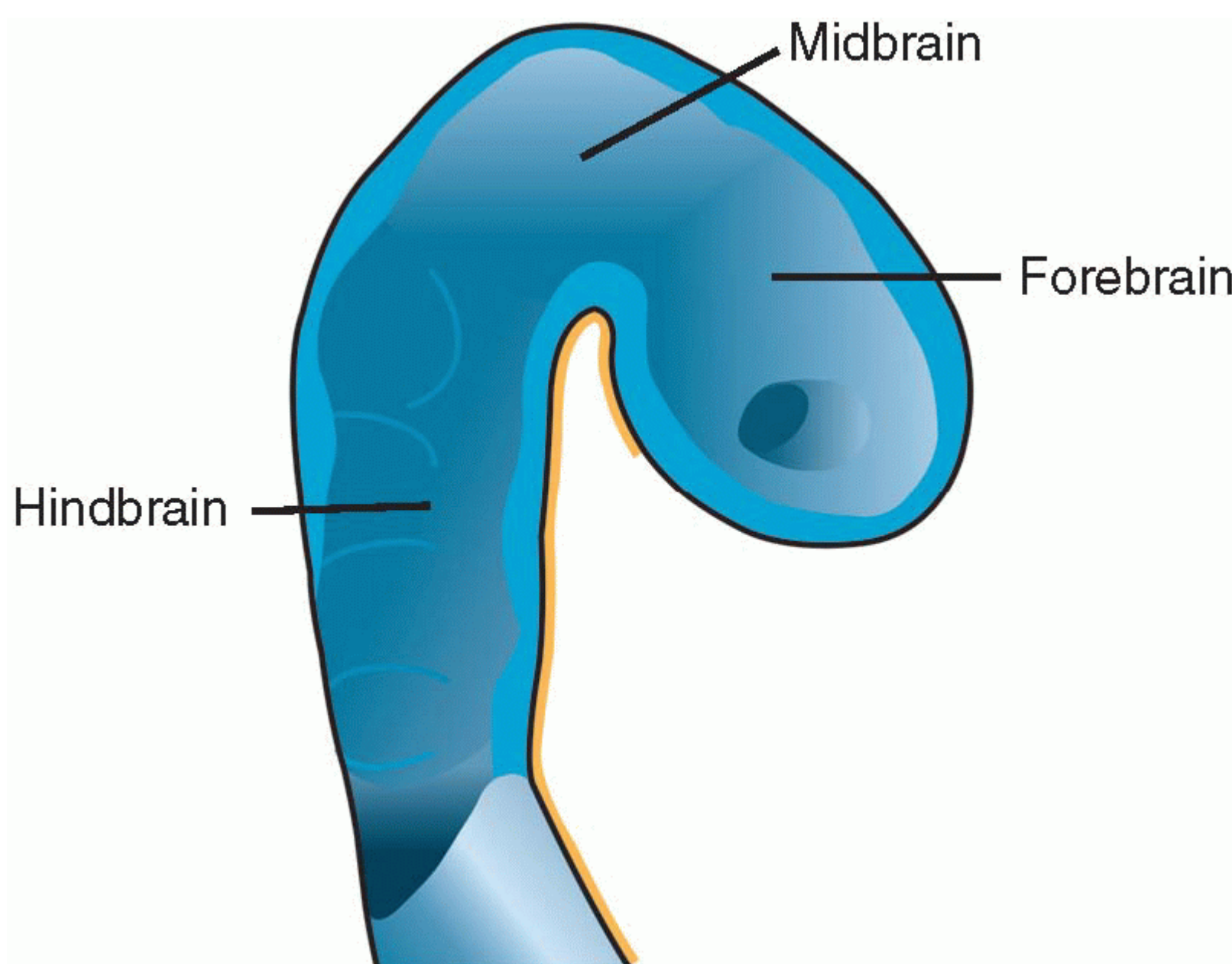
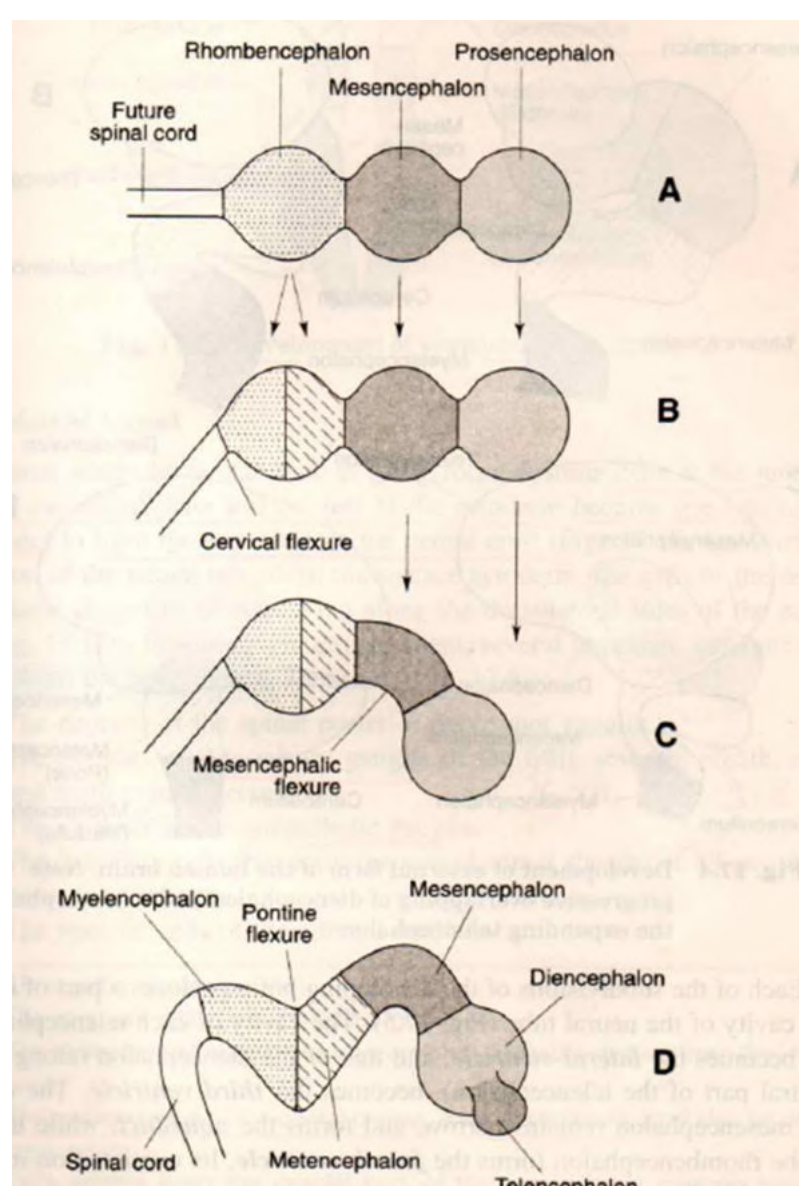
Neural Crest



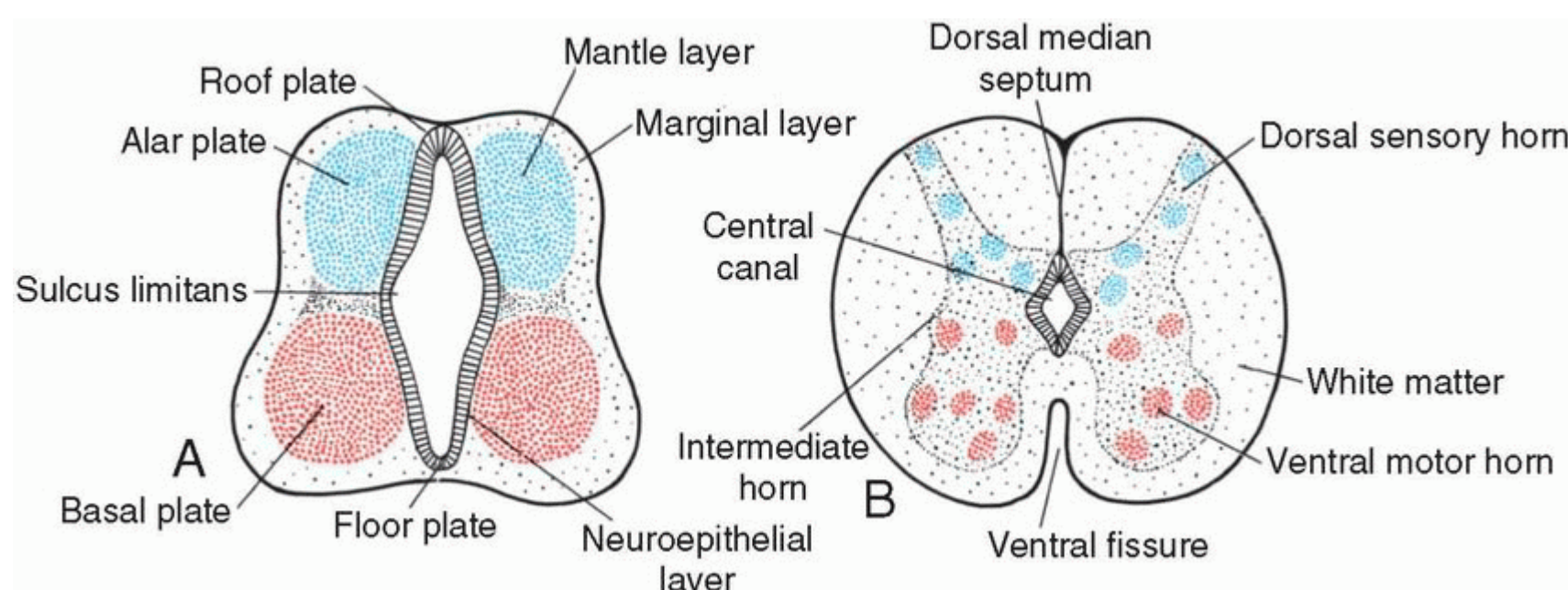
Neural tube and Neuropores



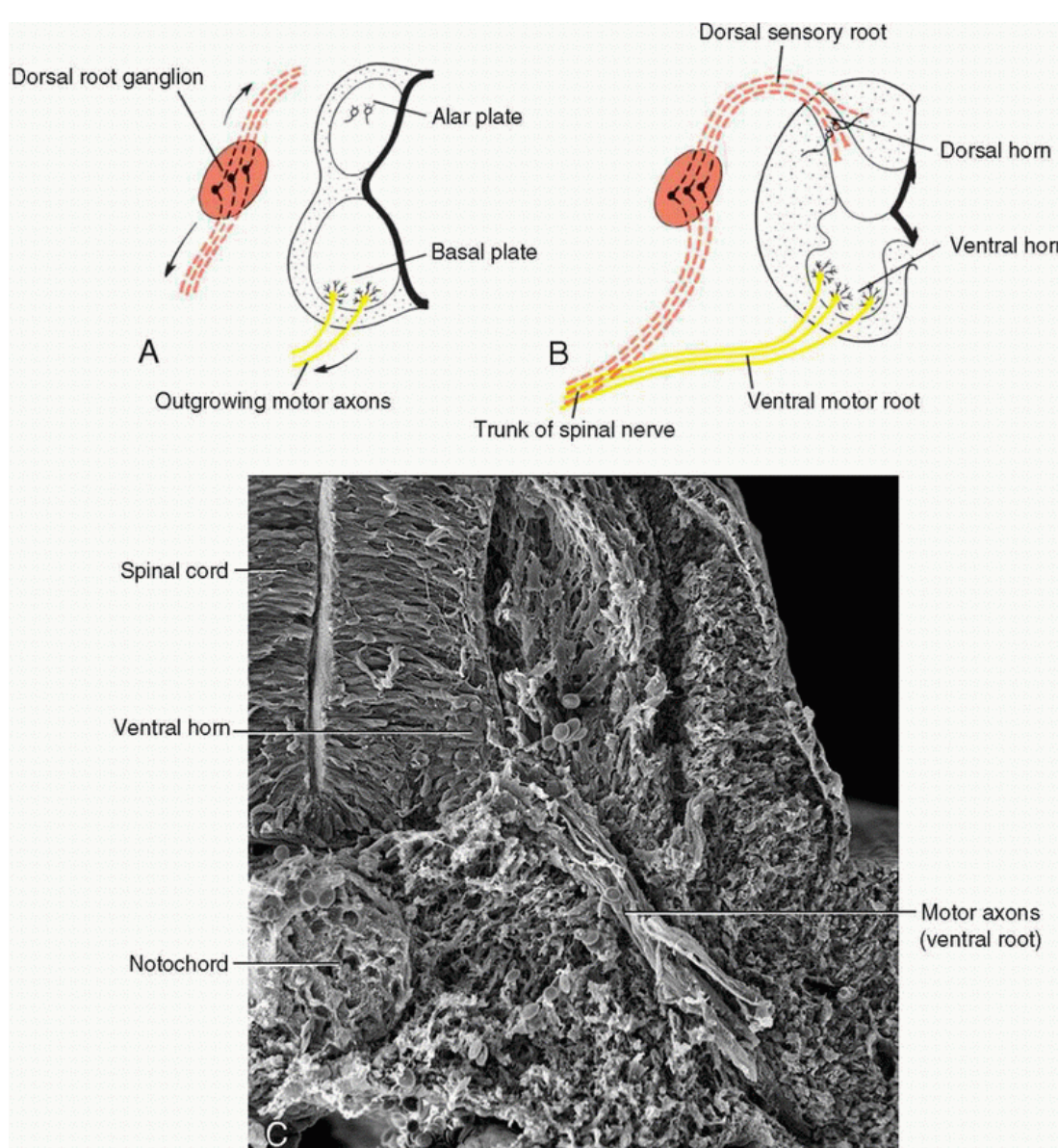
Dilatations of Neural Tube and Flexures



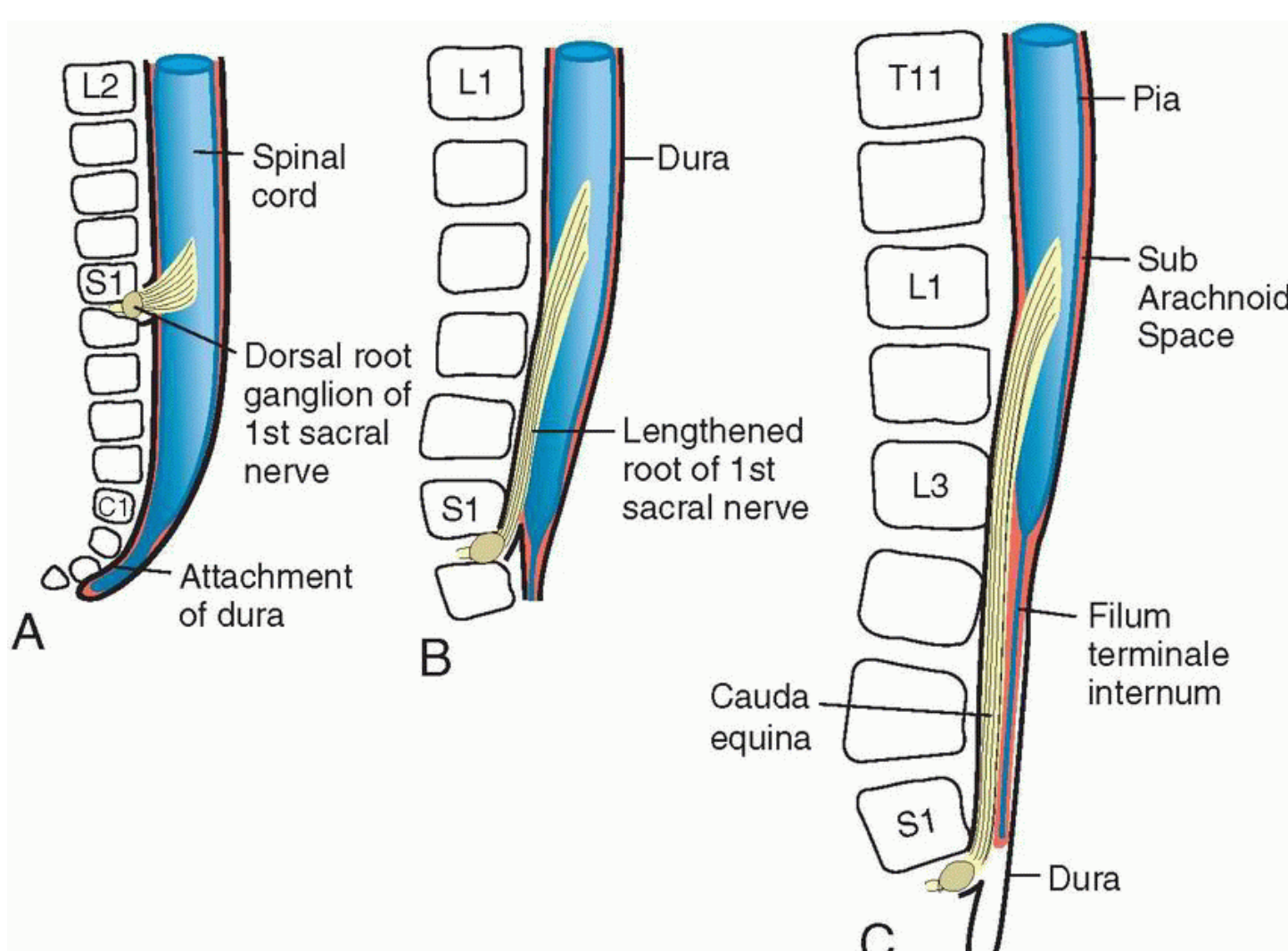
Development of Spinal Cord



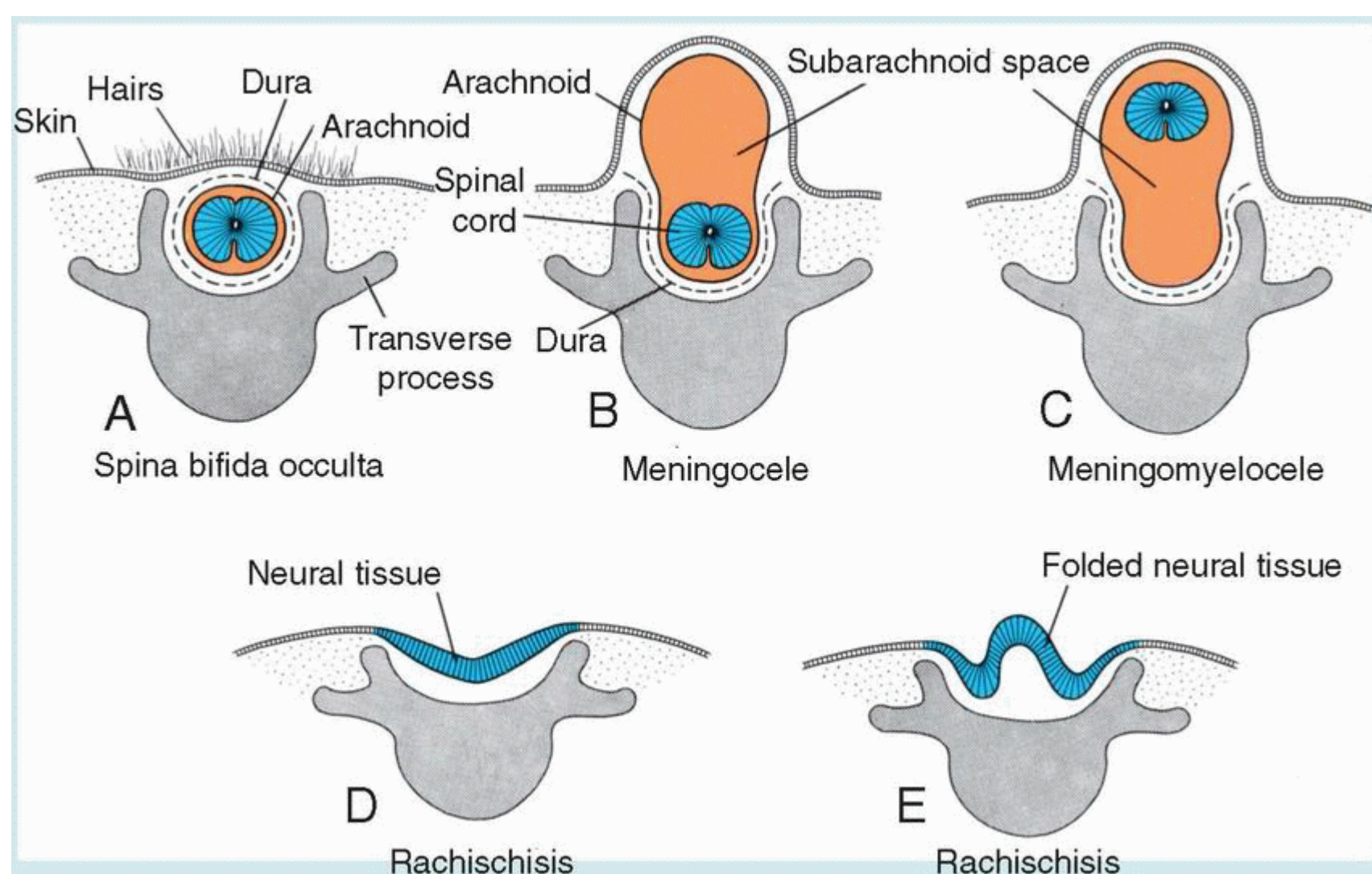
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Spina Bifida



Spina Bifida Cystica



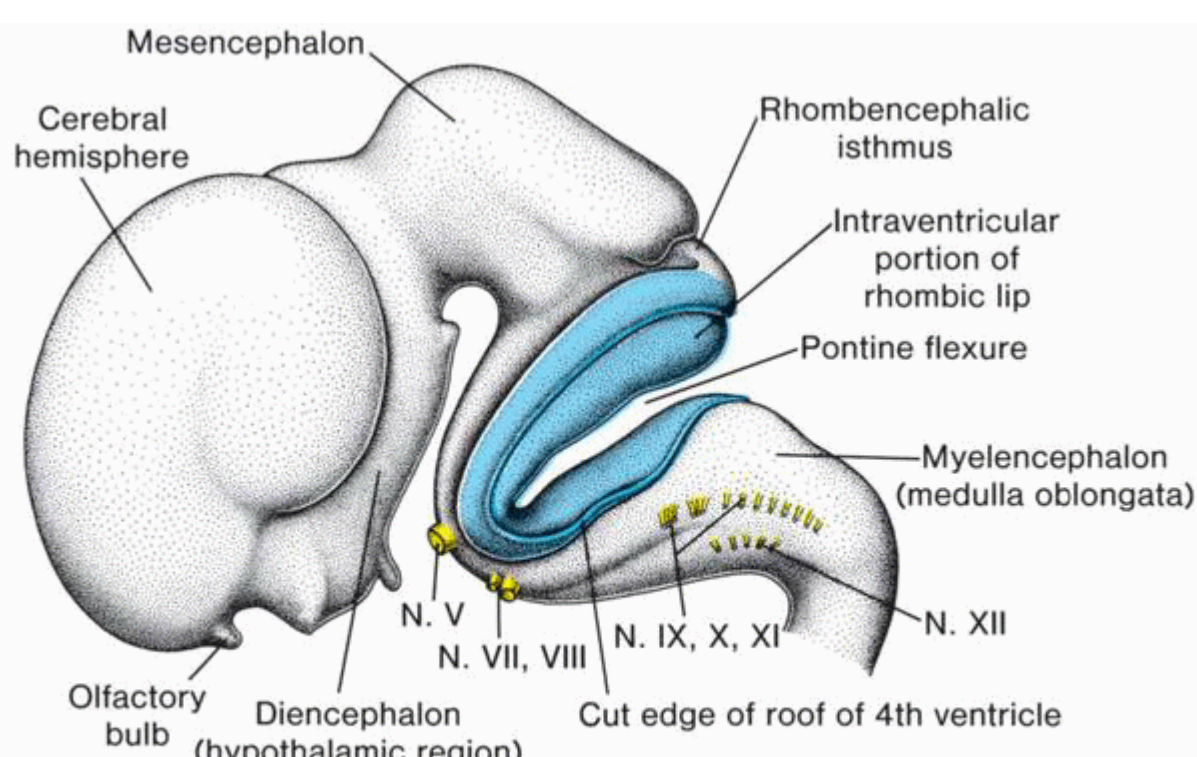
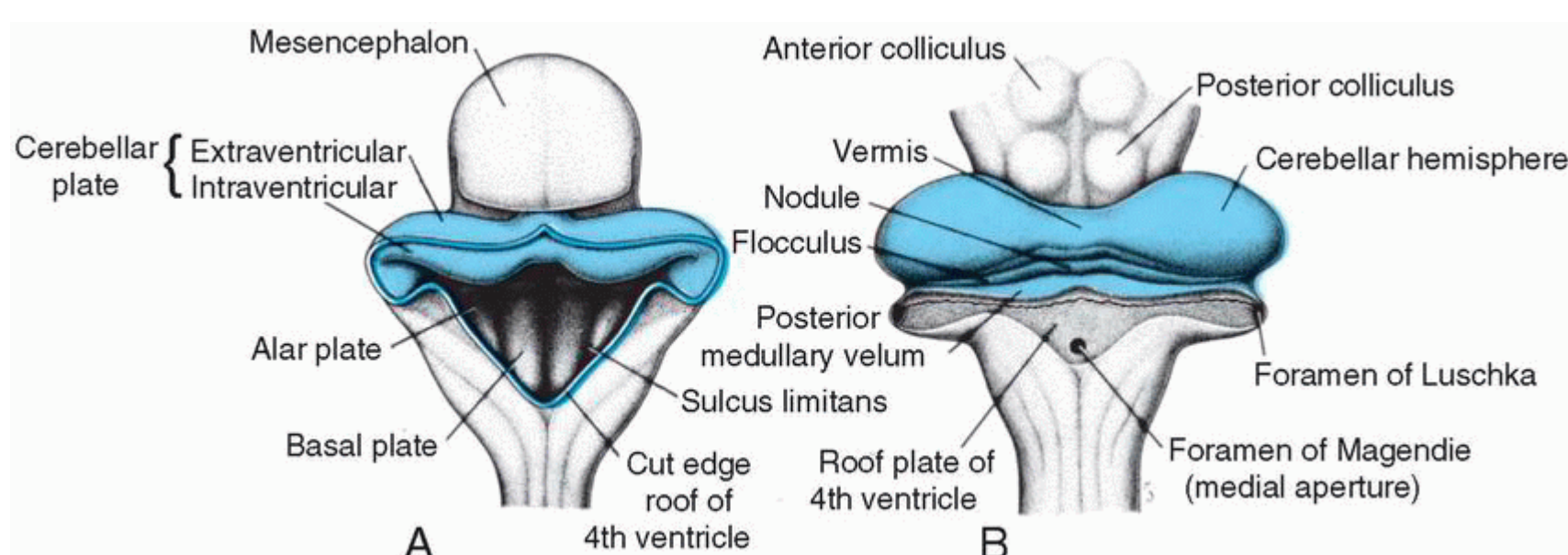
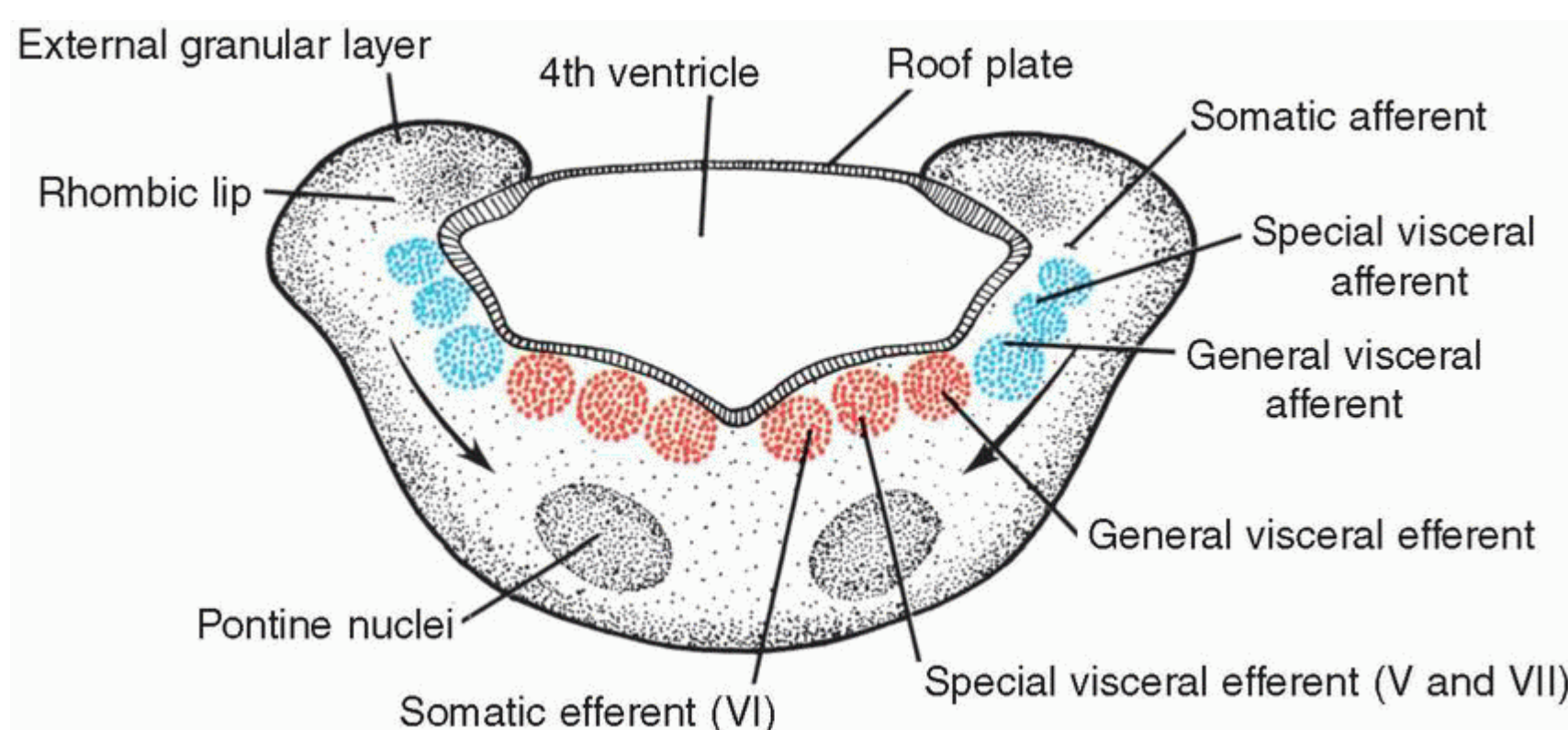
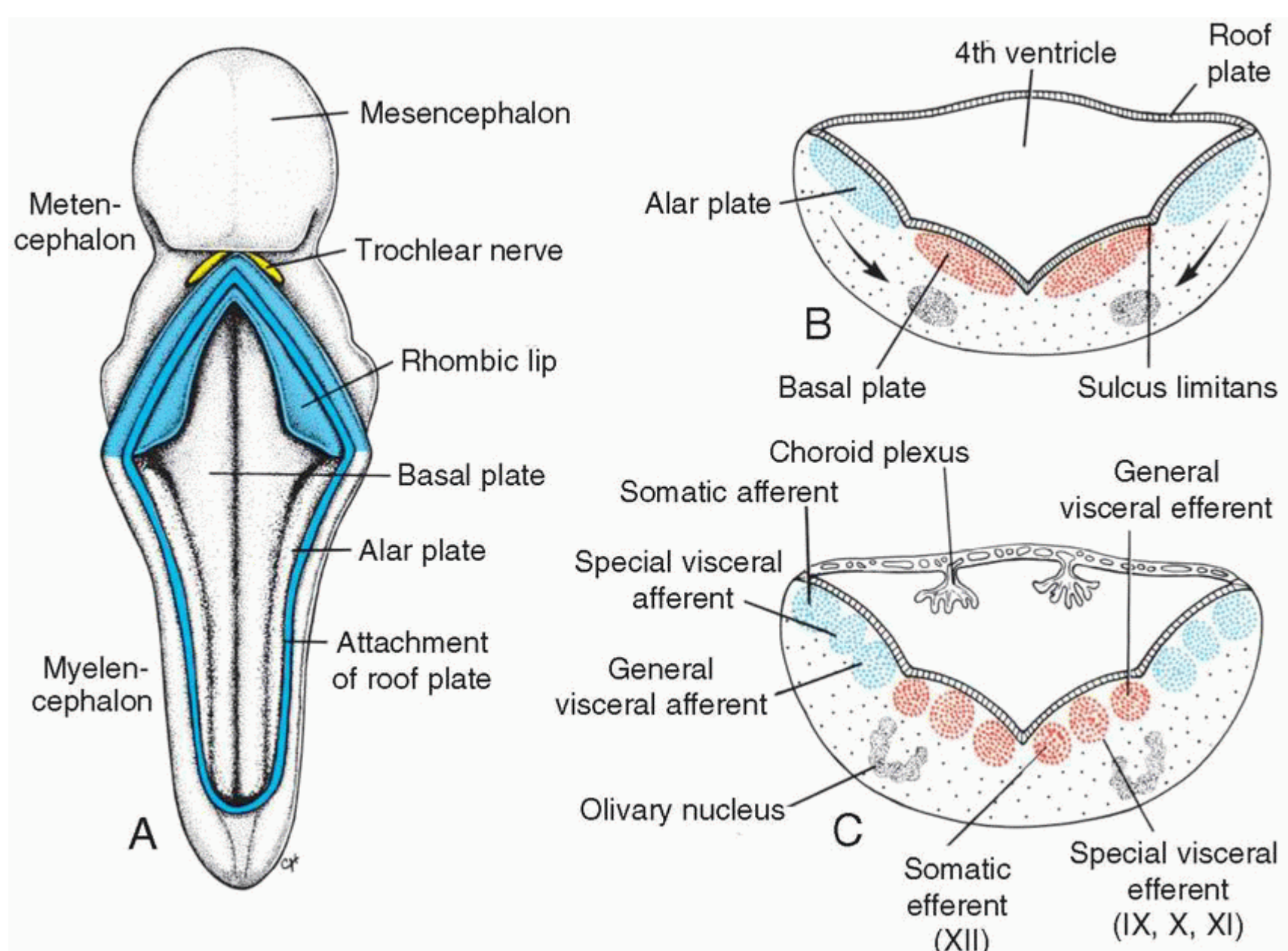
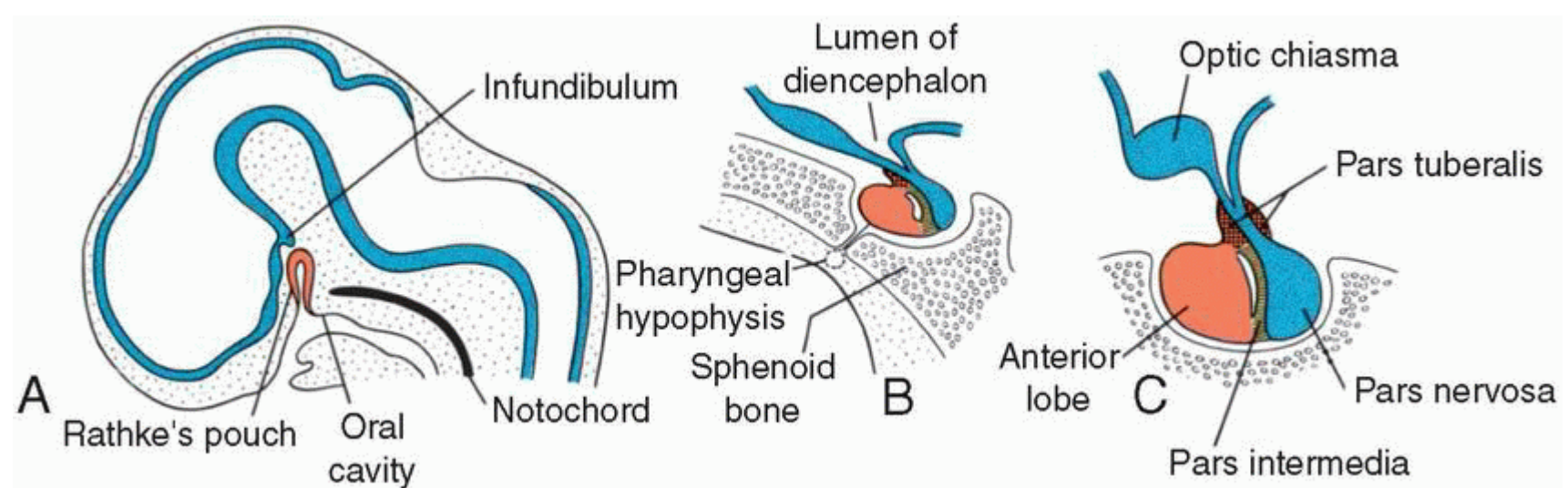
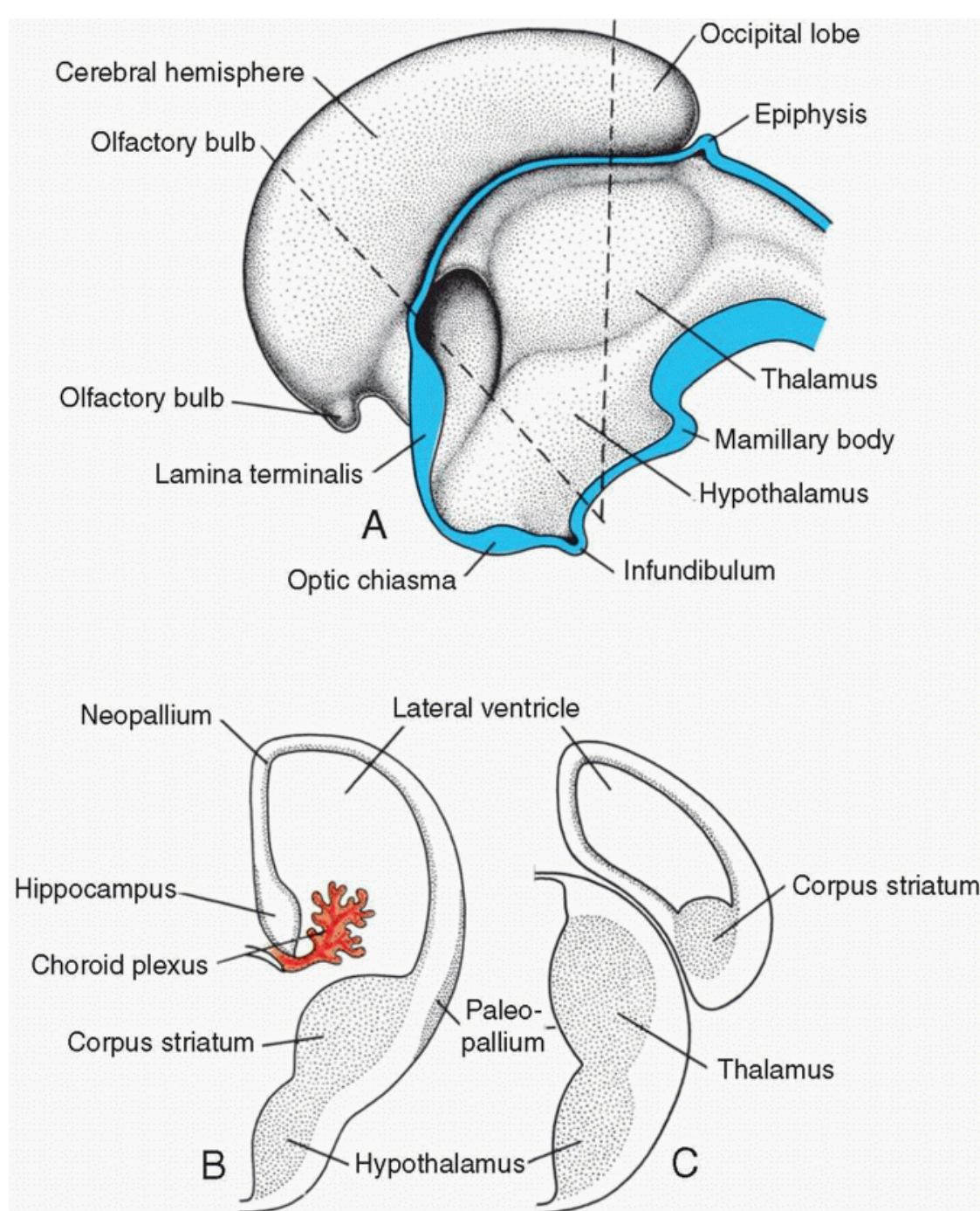
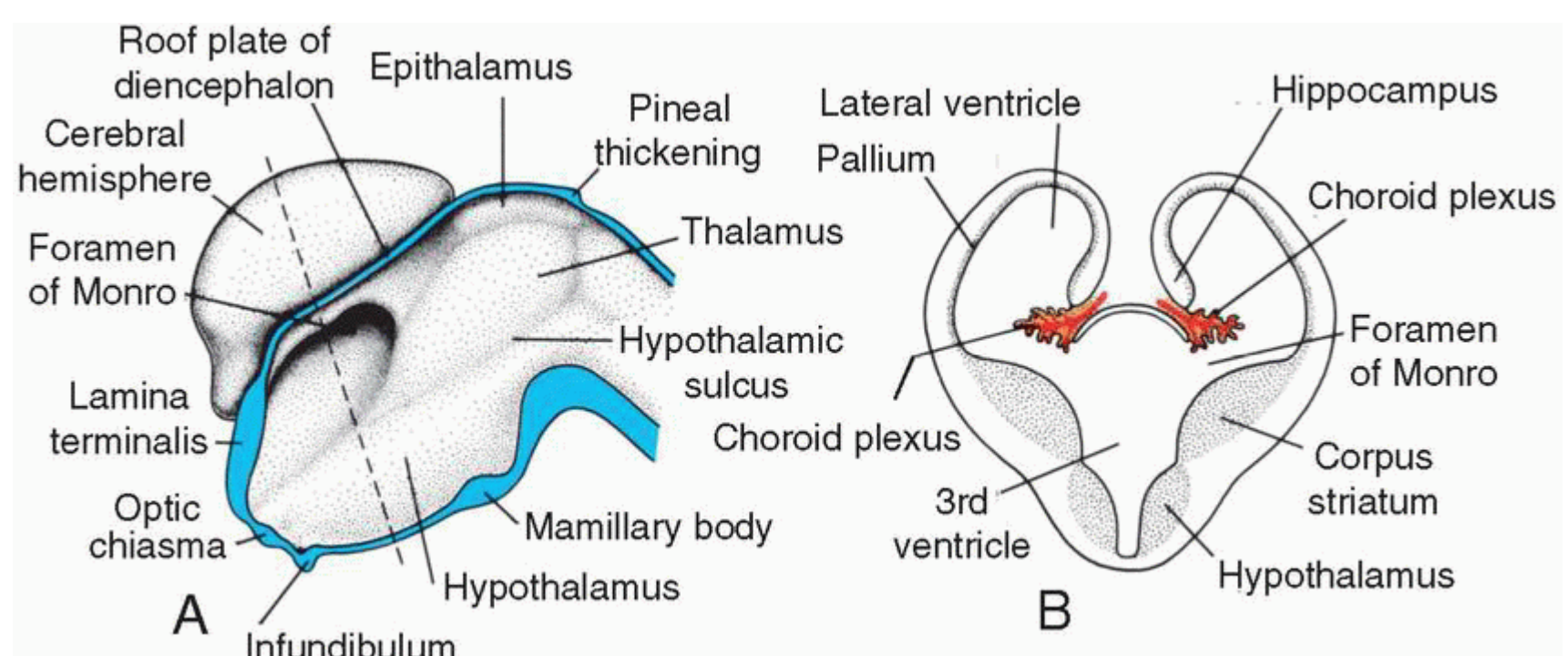
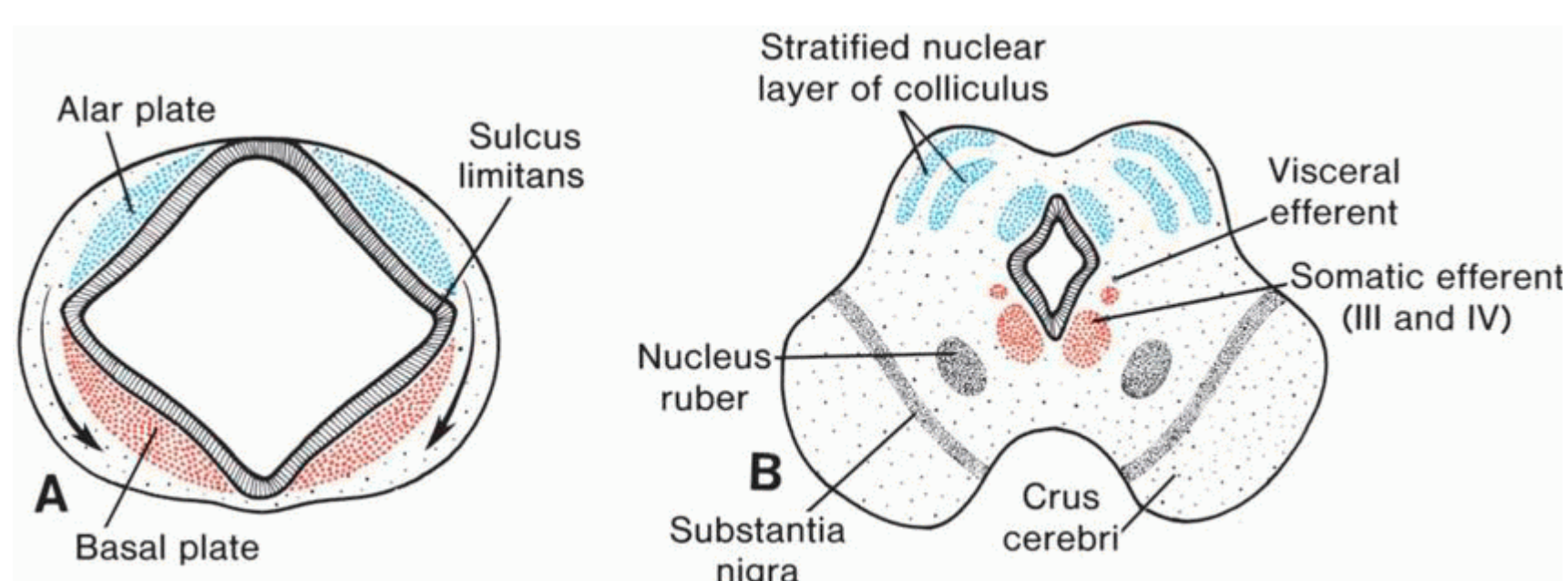
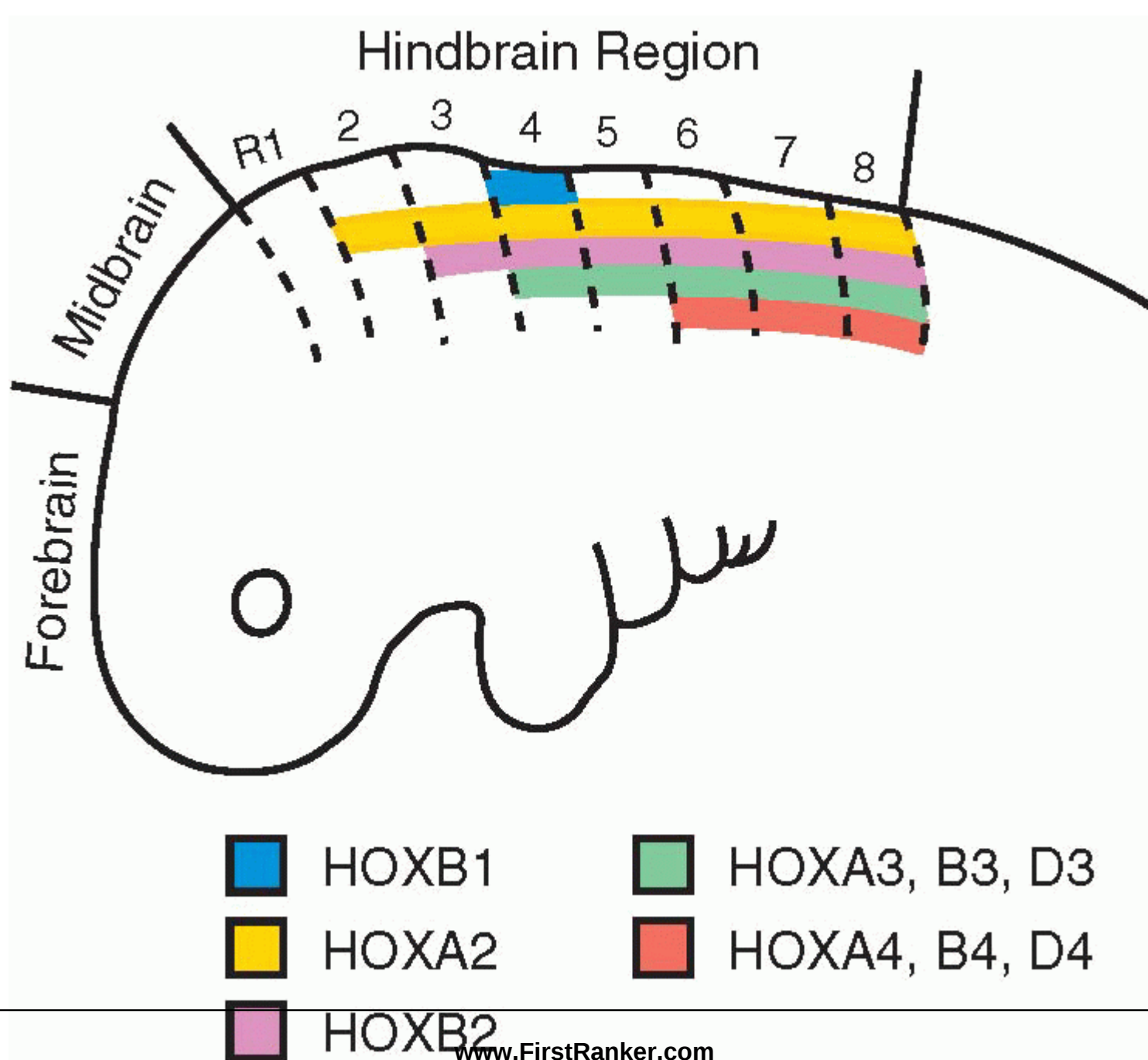
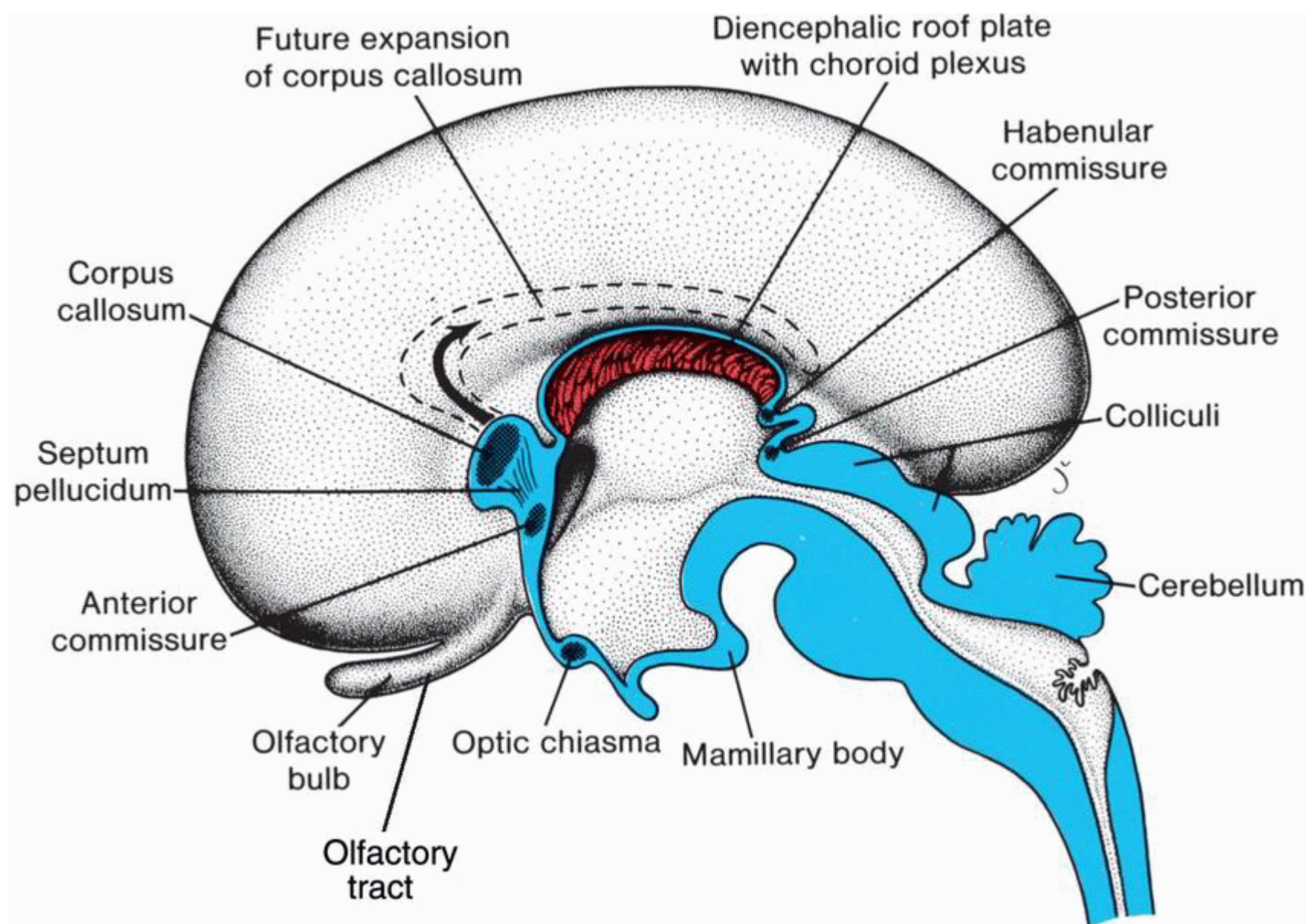
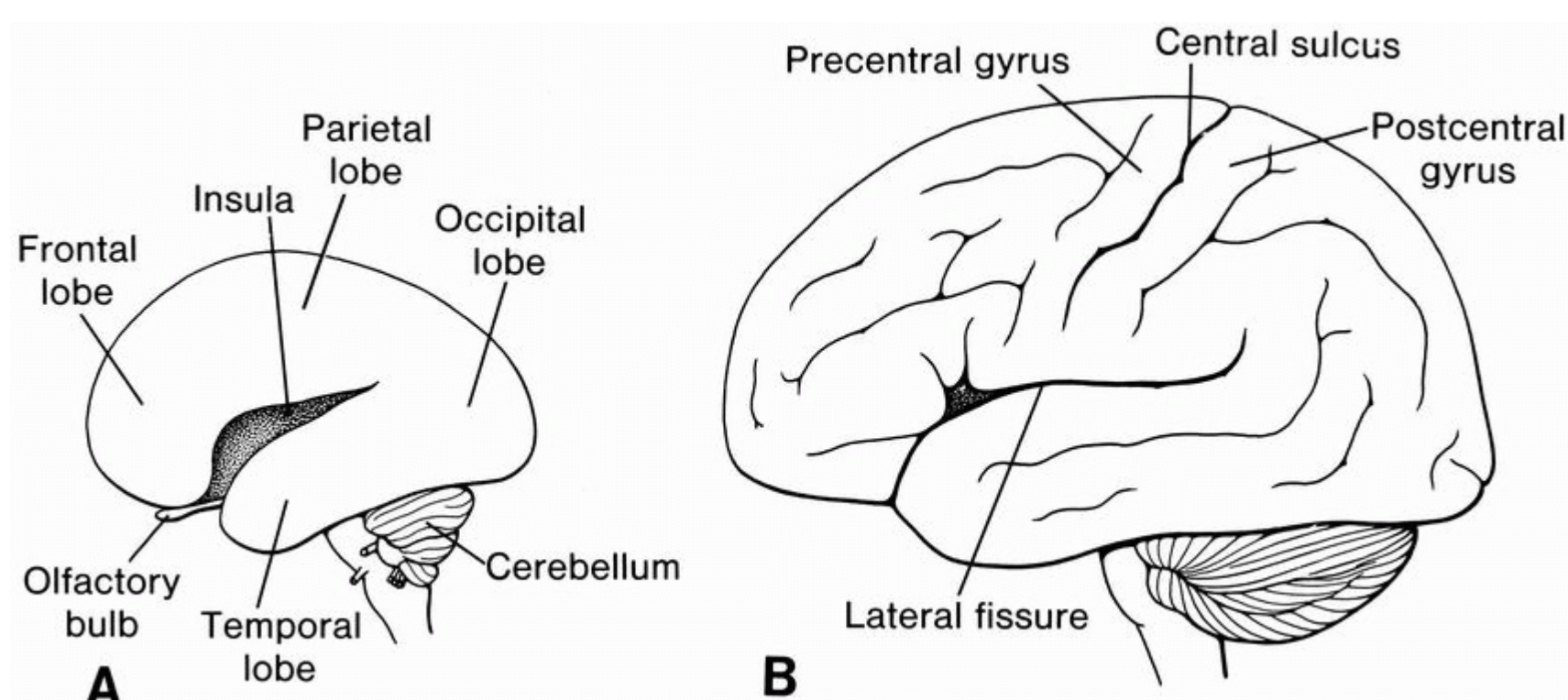
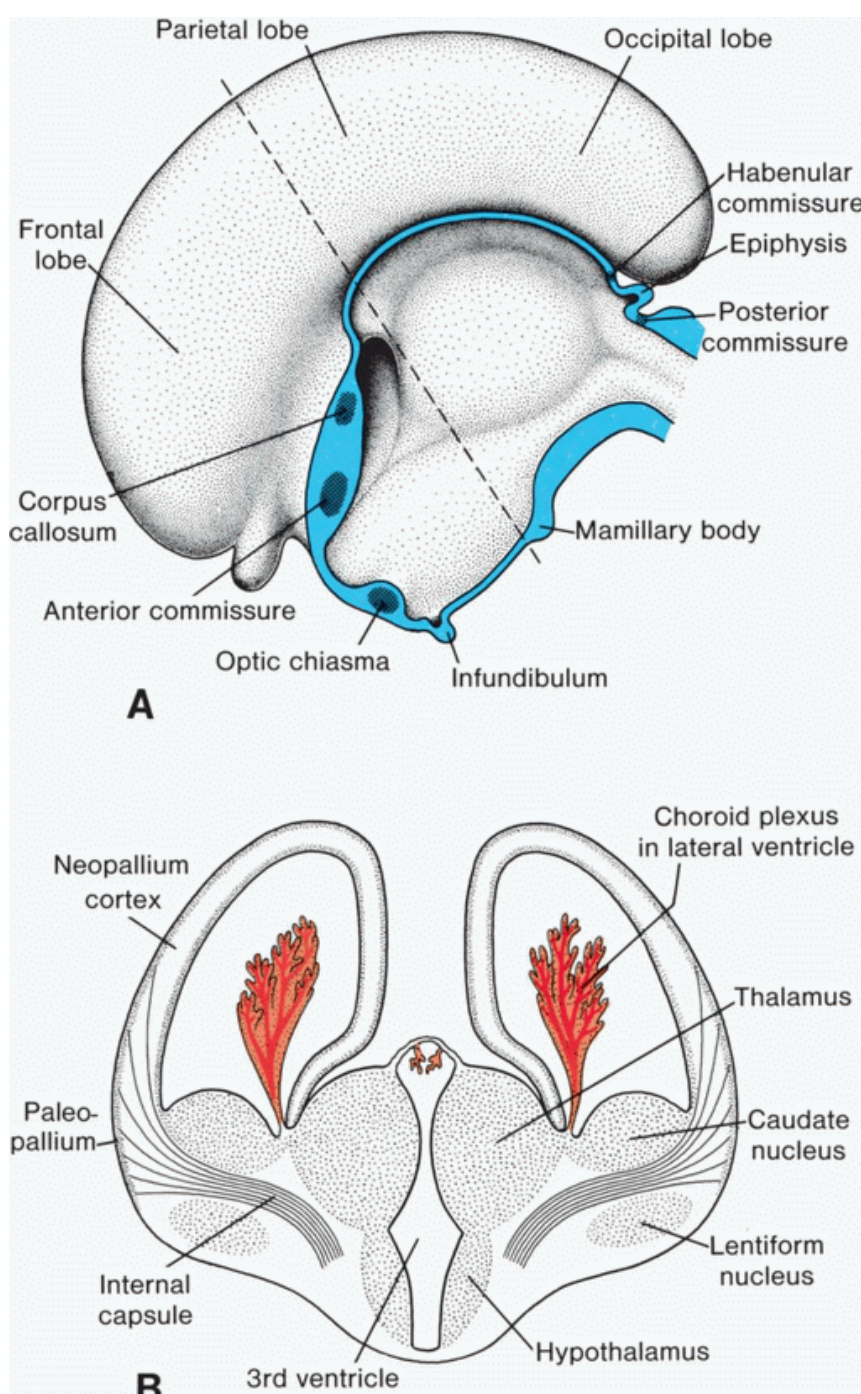
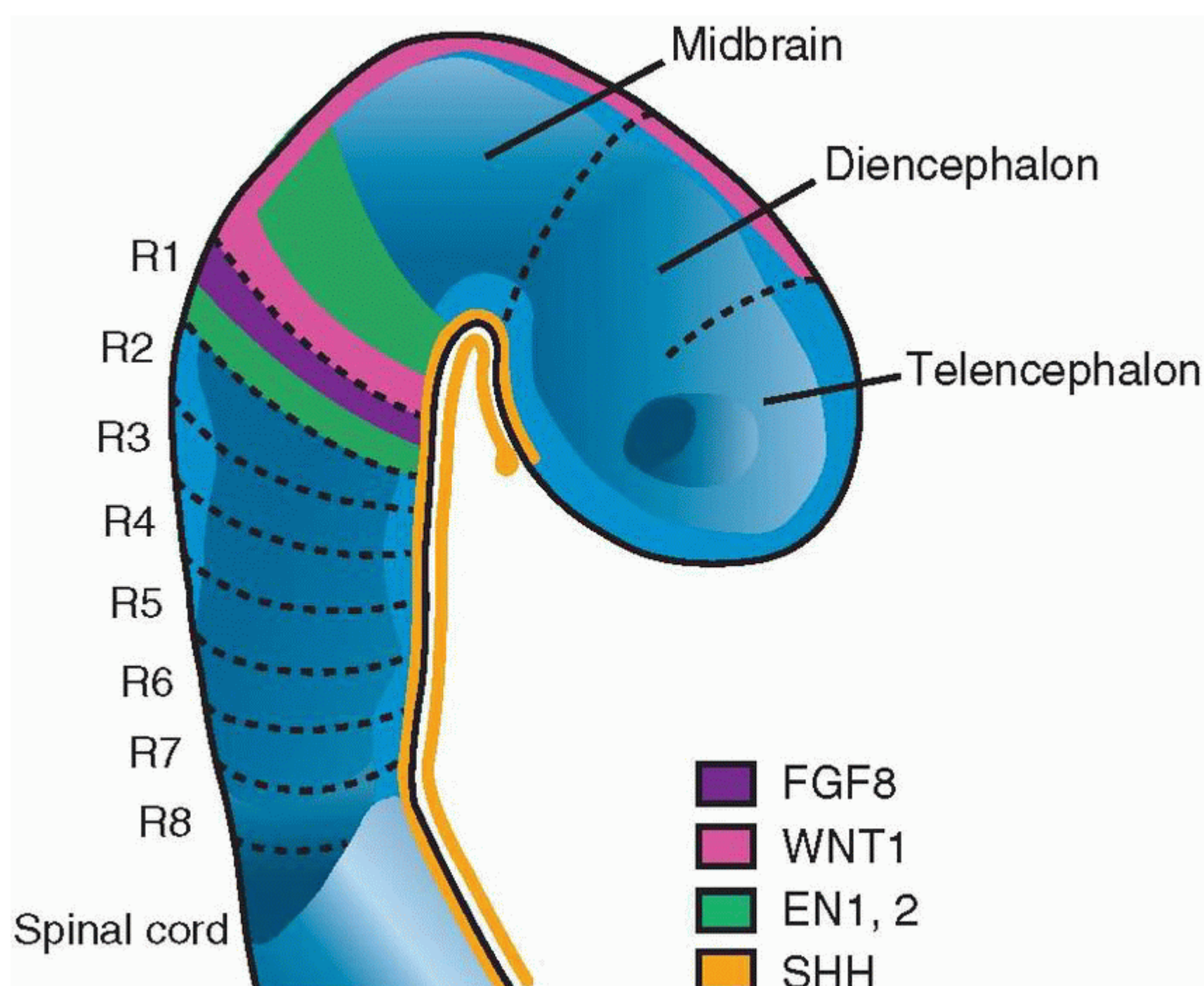


Figure 17.17 Lateral view of the brain vesicles in an 8-week embryo (crown-rump length ~27 mm). The roof plate of the rhombencephalon has been removed to show the intraventricular portion of the rhombic lip. Note the origin of the cranial nerves.

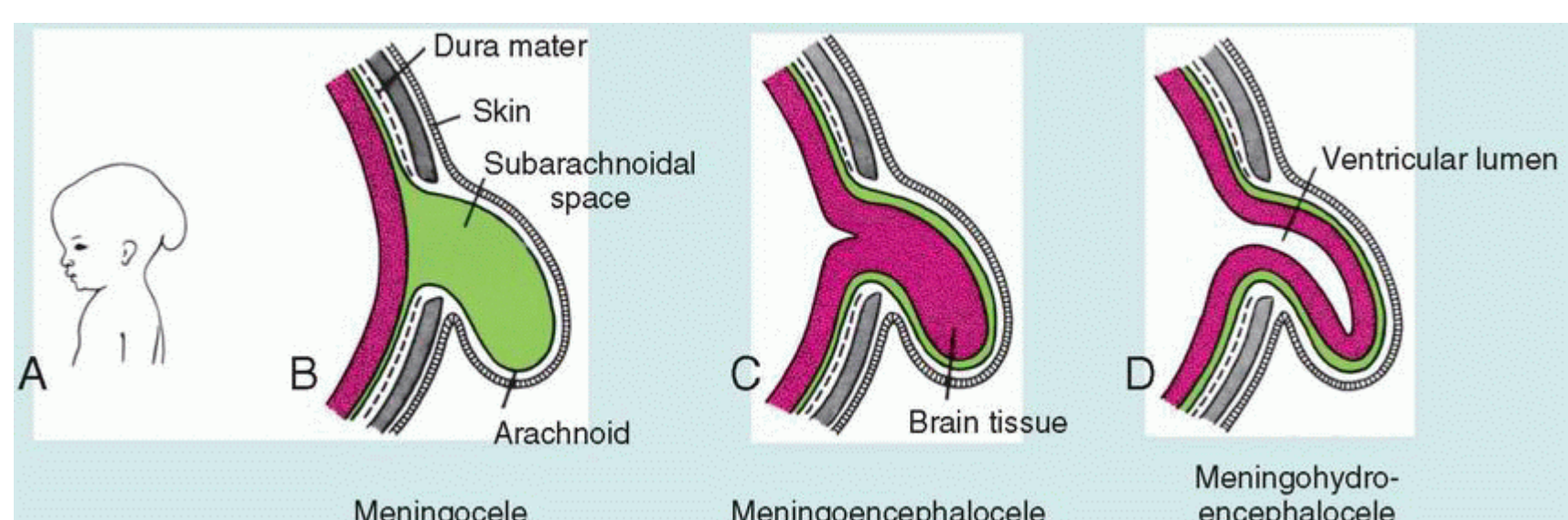








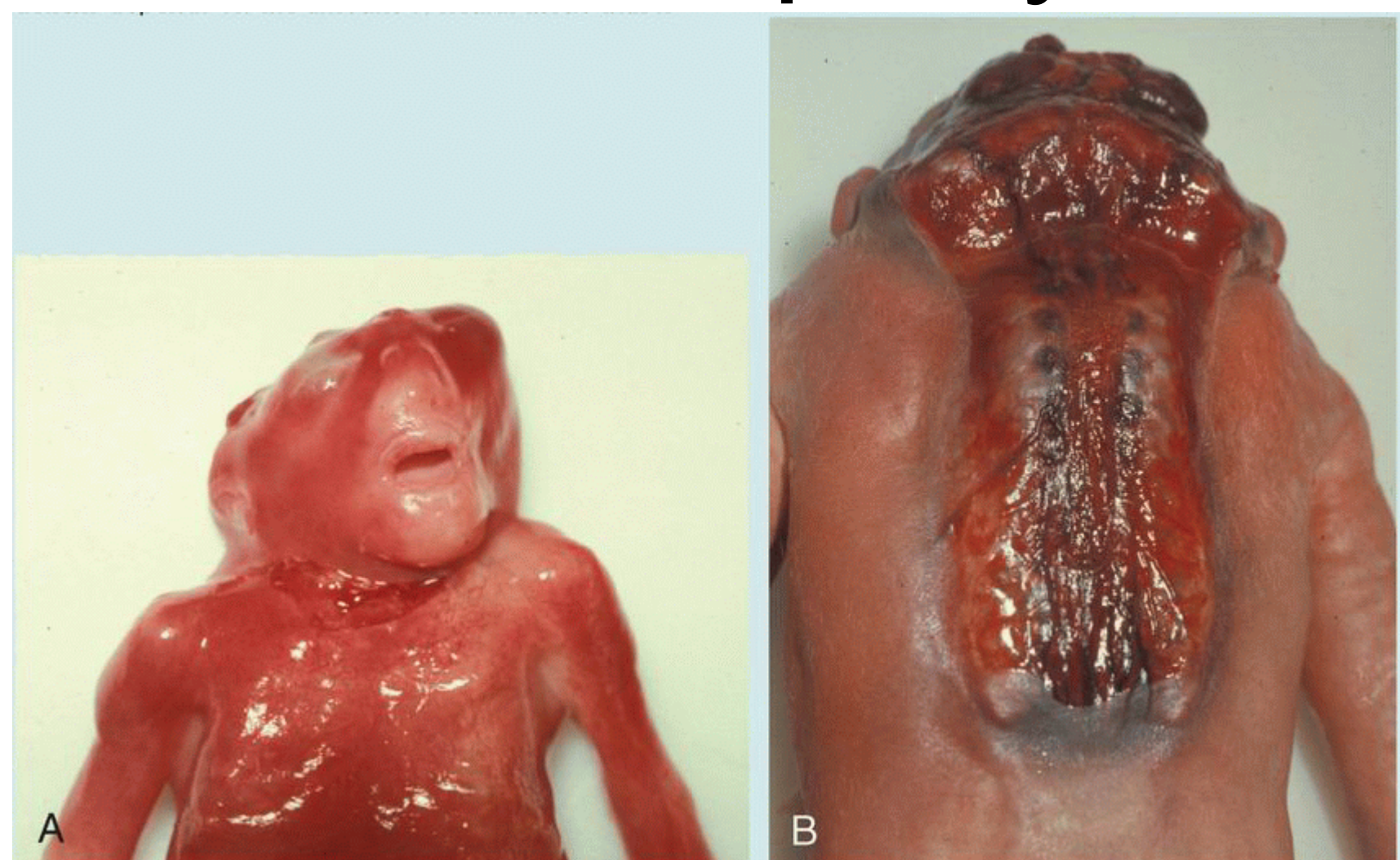
Neural Tube Defects



Occipital Meningoencephalocele



Anencephaly



Child with Hydrocephalus



Child with Microcephaly



MCQs

Q. Olivary nucleus is present in ventral aspect of medulla oblongata. It is derived from which of the following embryonic source?

- a. Basal lamina
- b. Alar lamina
- c. Rhombic lip
- d. Mantle layer