

MEMBRANES AND VENTRICLES OF THE BRAIN

1/12/82, 11 Jan 00, 15 Jan 03, 14 Jan 04, 30Jan08, 7Jan09, 6Jan10, 9Jan12
 S&M p 315, Martini's 4th: 448-453, 6th: p 467, 7th: 453-459, 8th: 464-468, 9th: 449-475

MENINGES (meninx = membrane) three layers covering CNS: p453

DURA MATER (hard mother): double layered around brain

- outer: periosteum, attached to cranial bones
- inner: continuous with dura mater of spinal cord.

- Folds:
- falx cerebri** 453 strong septum between cerebral hemispheres, attaches to crista galli
 - falx cerebelli** between cerebellar hemispheres also
 - tentorium cerebelli** between cerebrum and cerebellum

ARACHNOID MENIX (spider, cobweb-like) middle layer of three, adheres closely to inner surface of dura.

sub-arachnoid space, connected with pia mater by cobweb-like strands, filled with **Cerebrospinal fluid**.

PIA MATER (soft mother) delicate vascular, areolar connective, participates with the arachnoid to form choroid plexus.

VENTRICULAR SYSTEM, p 451

System of ventricles is a continuous fluid filled system:

- choroid plexus** (braid) folds in pia mater with network of capillaries produce:
- Cerebrospinal fluid (CSF)** bathes organs of central nervous system
- arachnoid villi** resorb CSF. Formed by projections of arachnoid meninx into dural venous sinuses

Illustrate **Superior sagittal sinus** with membranes, arachnoid villi.

P 463 for system illustration

Lateral ventricle: within each cerebral hemisphere, possess horns: superior, inferior, posterior two separated by thin **septum pellucidum**
 Connects with the third ventricle by foramen of Monro

Third Ventricle: narrow, within diencephalon, thalamus forms walls.
cerebral aqueduct communicates with the fourth ventricle

Fourth ventricle: within the hind brain, ventral to cerebellum has three openings:
 two foramina of Luschka (lateral aperture)
 one foramen of Magendie (medial aperture)

These foramina lead to space surrounding brain, and subarachnoid space of spinal cord
 Central canal of spinal cord is continuous with fourth ventricle.

