

Bio211
Laboratories 8 & 9

Brain/Cranial Nerves
Spinal Cord
Sheep Brain

Brain, Cranial Nerves, and Spinal Cord

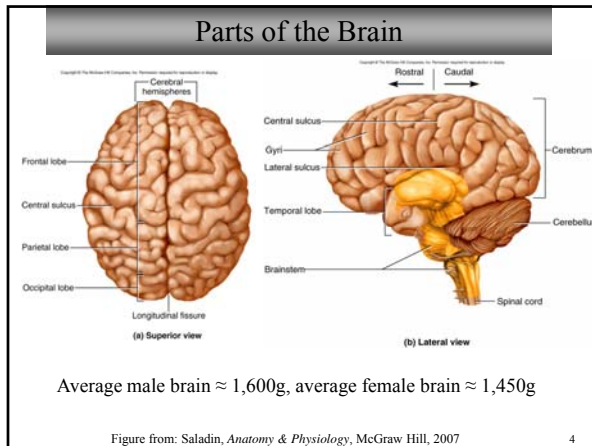
- Objectives for today's lab
 - Become familiar with the gross anatomy of the **human brain and sheep brain**
 - Be able to recognize and name **cranial nerves (I,II,III, V)** either on models or sheep brain
 - Become familiar with the **gross and microscopic anatomy of the spinal cord**

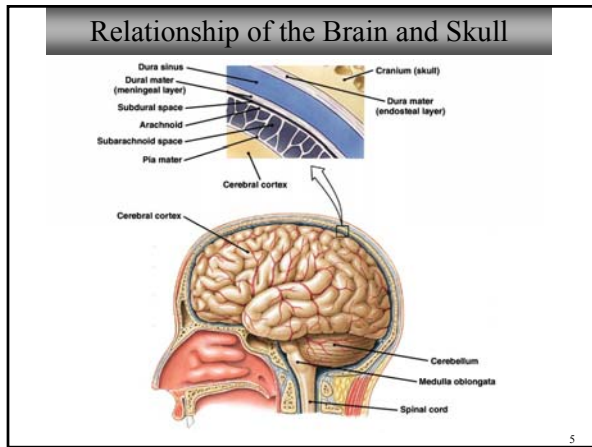
Overview of the Nervous System

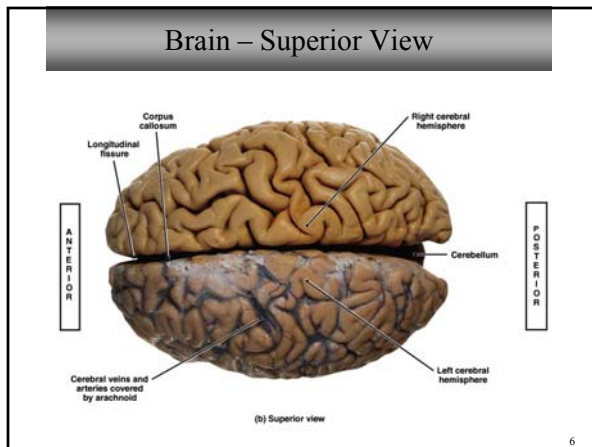
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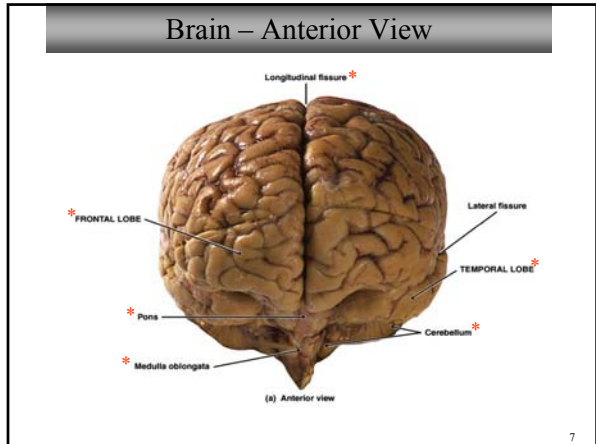
(a)

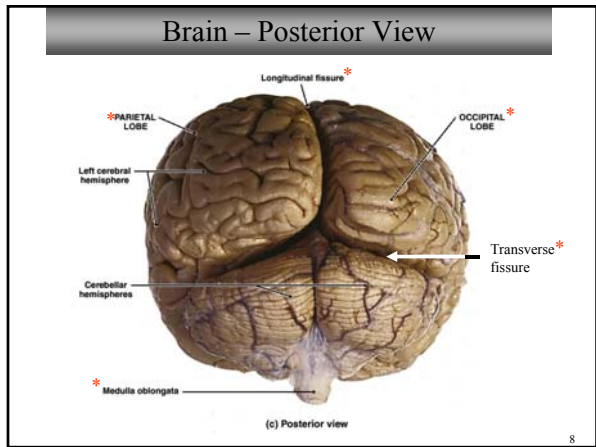
(b)

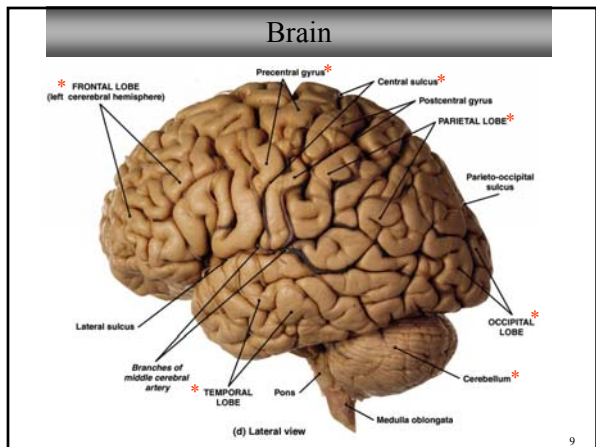












Ventricles of the Brain

(a)

(b)

Ventricles make and circulate cerebrospinal fluid, CSF

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Brain

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The Brain

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Brain – Coronal Section

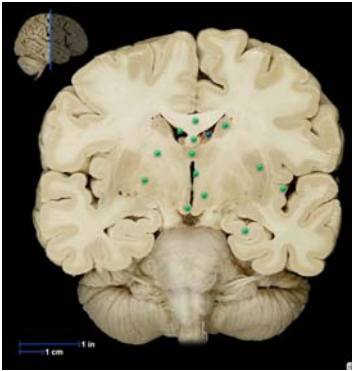
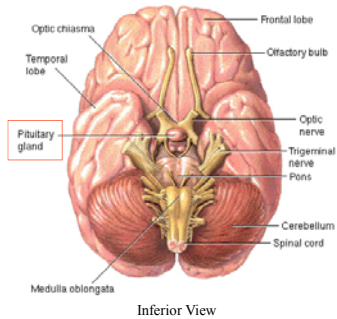


Figure from: *Anatomy & Physiology Revealed*, McGraw Hill, 2007

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The Brain

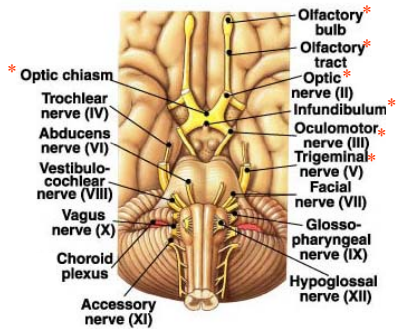


Inferior View

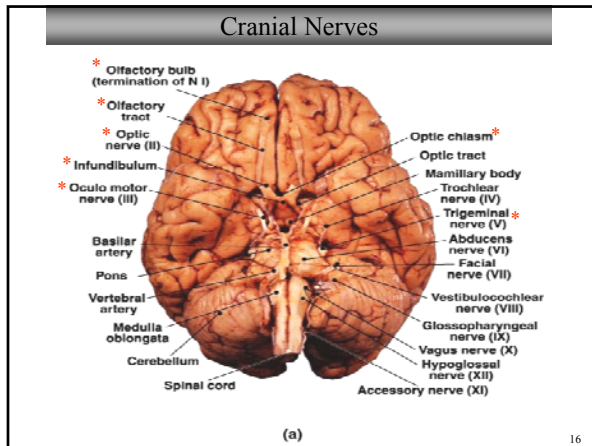
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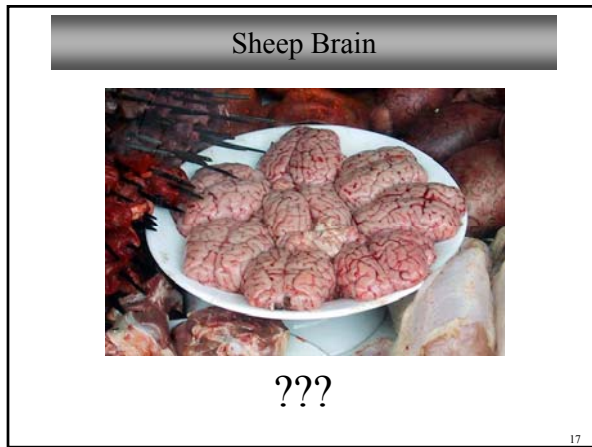
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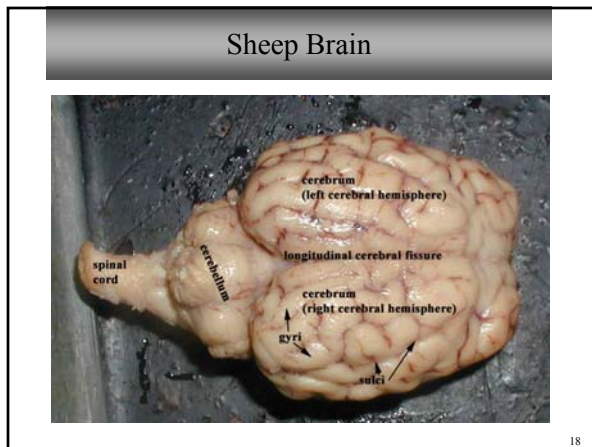
Cranial Nerves



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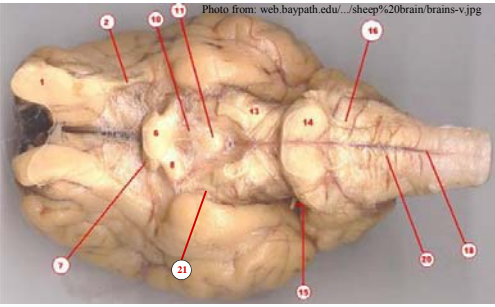






Sheep Brain

Photo from: web.baypath.edu/~sheep%20brain/brains-v.jpg

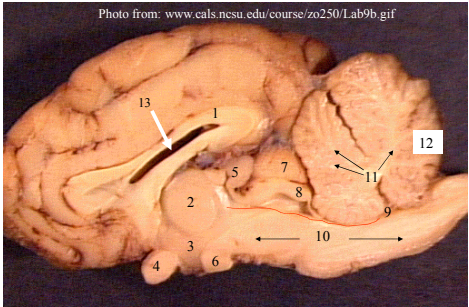


1. olfactory bulb	10. opening where the infundibulum attaches		
2. olfactory tract	11. mammillary body	15. trochlear nerve	20. medulla oblongata
6. optic chiasma	13. trigeminal nerve	16. abducens nerve	21. oculomotor nerve
7. optic nerve	14. pons	18. spinal cord	
8. optic tract			

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Sheep Brain

Photo from: www.cals.ncsu.edu/course/zo250/Lab9b.gif

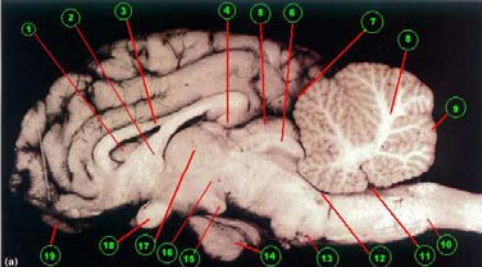


1. Corpus callosum	5. Pineal gland (body)	9. Fourth ventricle	13. Lateral ventricle
2. Thalamus	6. Mammillary Body	10. Brain stem	
3. Hypothalamus	7. Superior colliculus	11. Arbor vitae (white matter)	
4. Optic chiasm	8. Inferior colliculus	12. Cerebellar gray matter	

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Sheep Brain – Sagittal Section

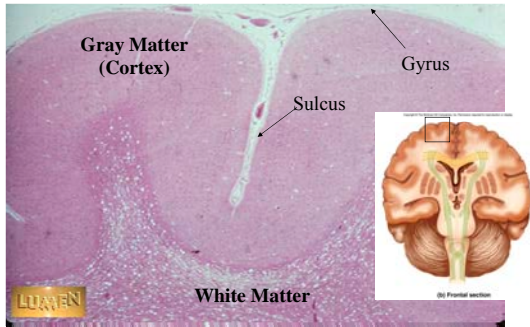
Photo from: web.baypath.edu/~sheep%20brain/brains-v.jpg



1. lateral ventricle	8. arbor vitae	15. mammillary body
2. fornix	9. cerebellar cortex (grey matter)	16. hypothalamus
3. corpus callosum	10. medulla oblongata	17. thalamus
4. pineal body	11. fourth ventricle	18. optic chiasma
5. superior colliculus	12. cerebral aqueduct	19. olfactory bulb
6. inferior colliculus	13. pons	
7. transverse fissure	14. pituitary gland	

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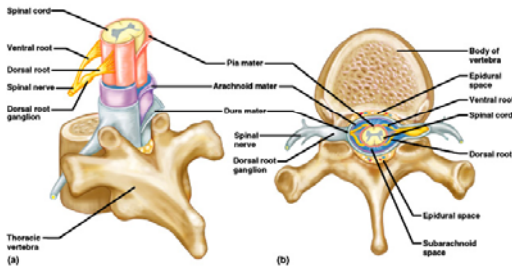
Histology of Cerebral Cortex



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Spinal Cord

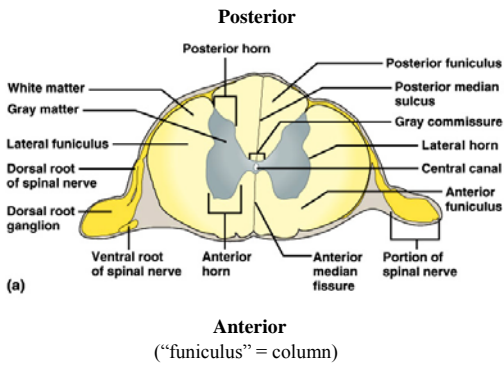
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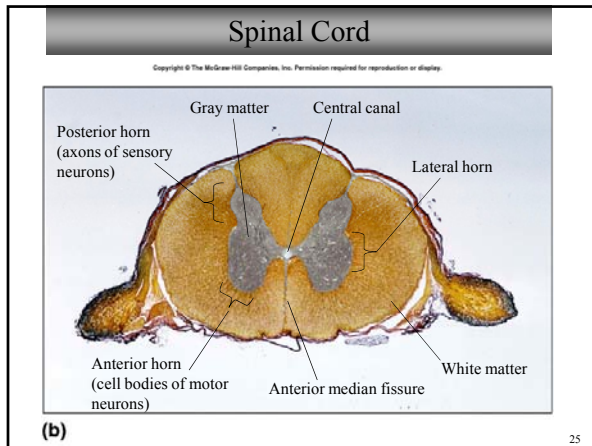
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Spinal Cord

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- ### What you should do in lab today...
- Complete Exercises 24 and 25 in Wood's Manual
 - This will give you an overview of the structures for which you are responsible (in Lab Guide)
 - There are more structures than you are responsible for
 - Use the models in the lab to find the structures
 - Brain models (can be disassembled)
 - Spinal cord models (inside cases in front of lab)
 - For the sagittal plaque models of the head, use the HOMELAB ATLASES (p. 32) as your legend.
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- ### What you should do in lab today...
- View the histological slides of the spinal cord
 - Use the labeled slide of the spinal cord (Slide #35) – I will set this slide up in the front of the room
 - You should be able to name the parts you see under the microscope (it will be on the lab exam)
 - Examine the sheep brain using your Lab Guide – **Instructions for using Sheep Brain...**
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For next lab (LAST ONE – Yahooooooe!)

- For **Eye/Ear Models; Visual Tests**
 - Read Exercises 29-31 in Wood’s lab manual
 - Label the diagrams (You will be completing Lab Reports 29 and 30 for the eye, and 31 for the ear)
- Lab Exam 3
 - Mon/Wed AM: Monday, 11/28
 - Mon/Wed PM: Wednesday, 11/30
 - Friday class: Friday, 12/2

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