

Tutorial 19: Human Brain: Coronal and Ventral Views

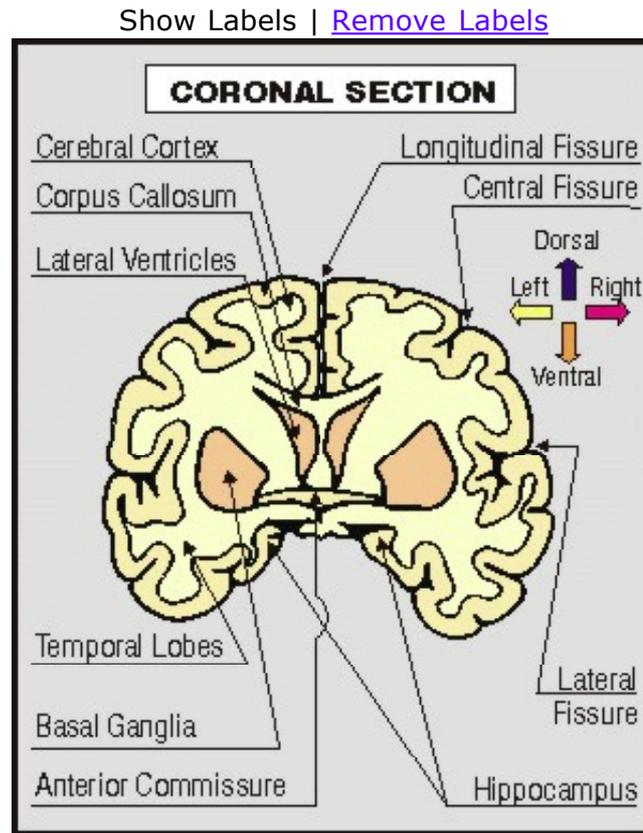


Figure 19a: Human Brain: Coronal and Ventral Views

[Intro](#)

Figure 19a: [Anterior Commissure](#) | [Basal Ganglia](#) | [Central Fissure](#) | [Cerebral Cortex](#) | [Corpus Callosum](#) | [Hippocampus](#) | [Lateral Fissure](#) | [Lateral Ventricles](#) | [Longitudinal Fissure](#) | [Temporal Lobes](#)

Figure 19b: [Cerebellum](#) | [Frontal Lobe](#) | [Longitudinal Fissure](#) | [Medulla](#) | [Olfactory Bulbs](#) | [Optic Nerves](#) | [Spinal Cord](#) | [Temporal Lobe](#)

[Part 1: Image-Mapped Tutorial](#)

Part 2: Matching Self-Test: [19a](#) | [19b](#)

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Any student of the nervous system needs to recognize the main structures and landmarks found on the outside of the brain and the general placement of major structures found deep within the brain. Tutorial 19 illustrates some of these regions as seen from a coronal section through the brain ([Figure 19a](#)) and from the ventral surface of the brain ([Figure 19b](#)). A coronal section is one that separates the brain into anterior and posterior halves. The coronal section shown in [Figure 19a](#) occurs approximately halfway between these two poles, and helps to show the placement of some of the major internal structures of the brain that will be referred to elsewhere. The ventral view of [Figure 19b](#) identifies several major structures that appear on the bottom surface of the brain.

To develop a three-dimensional representation of the brain, several perspectives need to be

considered. In addition to the coronal section and ventral surface views of the brain described in this tutorial, a mid-sagittal section and lateral surface view of the brain should also be studied. A mid-sagittal section through the brain separates this structure into left and right halves. The major regions and landmarks located on the mid-sagittal surface of the brain are illustrated and identified in [Tutorial 20](#). The structures located on the lateral surface of the brain are illustrated and identified in [Tutorial 21](#).

Suggestions for further study

SUGGESTED READINGS:

Axel, R. (1995, October). The molecular logic of smell. *Scientific American*, 273(4), 154-159.

Hubel, D.H. (1979, September). The brain. *Scientific American*, 241(3), 44-53.

Luria, A.R. (1970, March). The functional organization of the brain. *Scientific American*, 222(3), 66-72.

Nauta, W.J.H. & Feirtag, M. (1979, September). The organization of the brain. *Scientific American*, 241(3), 88-111.

Ramachandran, V.S. (1992, May). Blind Spots. *Scientific American*, 266(5), 86-91.

RELATED LINKS:

<http://www.meddean.luc.edu/lumen/MedEd/Neuro/nIBSs/nIBSmms.html>

(Brain Stem Neuroanatomy Lab)

Loyola University Medical Center, Sections throughout the brain stem.

<http://www.vh.org/Providers/Textbooks/BrainAnatomy/BrainAnatomy.html>

(The Virtual Hospital - The Human Brain)

Williams, Gluhbegovic & Jew, University of Iowa

A superb detailed atlas of human brain dissections.

<http://www.med.harvard.edu/AANLIB/home.html>

(The Whole Brain Atlas - Harvard University)

Johnson & Becker, Harvard University and Massachusetts Inst. of Technology

<http://www1.biostr.washington.edu/DigitalAnatomist.html>

(The Digital Anatomist Project) University of Washington, On-line Interactive Atlas including 3-D computer graphics, MRI scans and tissue sections.