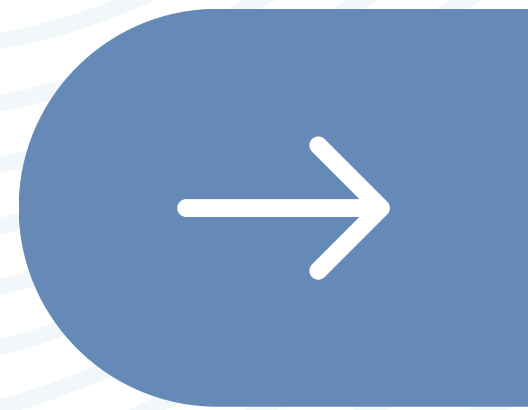


#DIBS BY NEXTILLO

DAILY INFORMATION BULLETIN SERVICE

STRUCTURES/SPACES IN THE
SPINAL CORD





#DIBSBYNEXTILLO

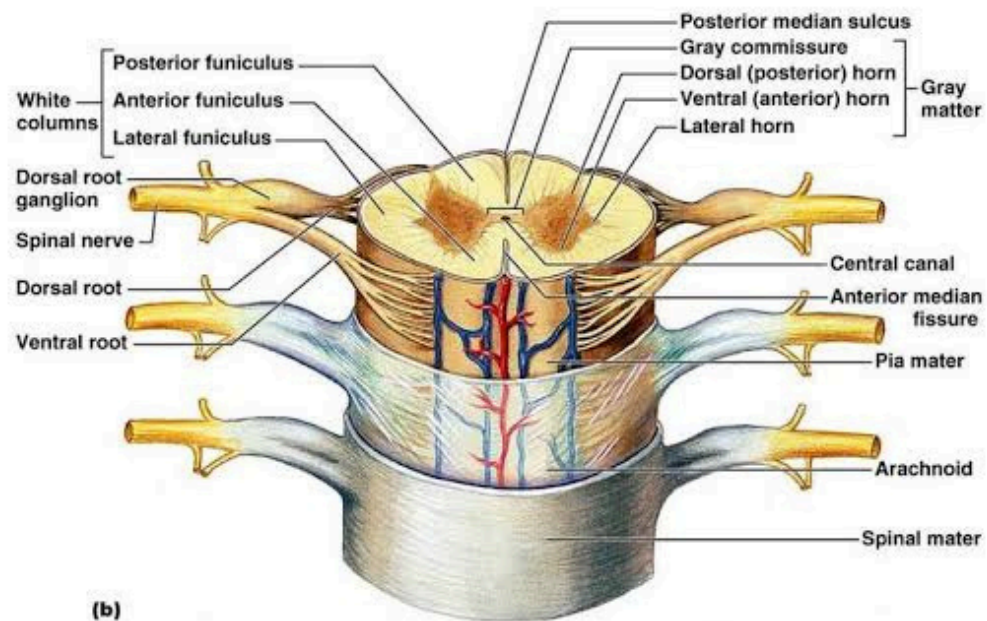
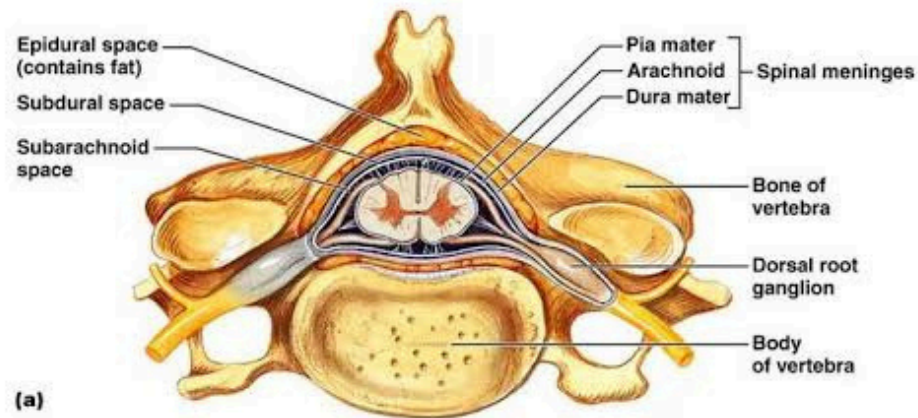
DAILY INFORMATION BULLETIN SERVICE

STRUCTURES/SPACES IN THE SPINAL CORD

Understanding the extent of important structures and spaces in the spinal cord is crucial for comprehending its anatomical organization and the distribution of key neural elements.



VISUAL REPRESENTATION





STRUCTURES/SPACES IN THE SPINAL CORD

OVERVIEW OF SPINAL CORD ANATOMY

- **Definition and Location:** *The spinal cord is a cylindrical bundle of nerves that extends from the brainstem to the lumbar region.*
- *Housed within the vertebral column, it serves as a vital conduit for sensory and motor signals.*
- **Segmentation and Regions:** *The spinal cord is divided into cervical, thoracic, lumbar, and sacral regions, each associated with specific nerve roots.*
- *Different segments control distinct bodily functions and correspond to specific dermatomes and myotomes.*
- **Protective Structures:**
- *Surrounded by protective layers, including the meninges (dura mater, arachnoid mater, and pia mater) and cerebrospinal fluid (CSF).*



STRUCTURES/SPACES IN THE SPINAL CORD

IMPORTANT SPACES

- **Central Canal:**
 - A narrow channel within the spinal cord, containing cerebrospinal fluid.
 - Extends throughout the length of the spinal cord and communicates with the ventricular system in the brain.
- **Anterior Median Fissure and Posterior Median Sulcus:**
 - These longitudinal divisions on the anterior and posterior sides, respectively, demarcate the midline of the spinal cord.
 - House major blood vessels and aid in segmental organization
- **Gray Matter and White Matter:**
 - The central gray matter consists of cell bodies, while the surrounding white matter contains axons.
 - Gray matter forms an H-shaped structure, with dorsal (sensory) and ventral (motor) horns.

CLINICAL CONSIDERATIONS

- **Spinal Cord Injuries and Functional Implications:**
 - The location of injuries within the spinal cord influences the functional deficits observed.
 - Understanding the extent of important structures aids in predicting the impact of injuries on sensory and motor functions.
- **Diagnostic Imaging Techniques:**
 - Magnetic resonance imaging (MRI) and computed tomography (CT) scans are employed to visualize the spinal cord's anatomy and detect abnormalities.



MCQ

Question: Which longitudinal division demarcates the midline of the spinal cord on its anterior side?

- (A) Posterior Median Sulcus**
- (B) Central Canal**
- (C) Anterior Median Fissure**
- (D) Gray Matter**

Answer: (C) Anterior Median Fissure