Body Cavities

Cranial cavity (contains brain)

Cerebral fluid all throughout brain/spinal cord.

Dorsal body cavity

Thoracic cavity (contains heart and lungs)

Diaphragm

Abdominal cavity (contains digestive viscera)

Pelvic cavity (contains bladder, reproductive organs, and rectum)

Vertebral cavity (contains spinal cord)

5x: discussion on spinal tap.

Ventral body cavity

(a) Lateral view

Figure 1.9a
Body Cavities

- **Dorsal cavity** protects the nervous system, and is divided into two subdivisions:
  - **Cranial cavity** is within the skull and encases the brain
  - **Vertebral cavity** runs within the vertebral column and encases the spinal cord
- **Ventral cavity** houses the internal organs (viscera), and is divided into two subdivisions:
  - Thoracic and Abdominopelvic cavities

*Internal Organs
"Visceral Membranes" → Membranes of organs*
Body Cavities

- Cranial cavity
- Vertebral cavity
- Superior mediastinum
- Pleural cavity
- Pericardial cavity within the mediastinum
- Diaphragm
- Abdominal cavity (contains digestive viscera)
- Pelvic cavity (contains bladder, reproductive organs, and rectum)

(b) Anterior view

Key:
- Yellow: Dorsal body cavity
- Red: Ventral body cavity

Thoracic

Know general - do not need to know each part.

Ventral body cavity (thoracic and abdominopelvic cavities)
Body Cavities

- **Thoracic cavity** is subdivided into pleural cavities, the mediastinum, and the pericardial cavity
  - **Pleural cavities** – each houses a lung
  - **Mediastinum** – contains the pericardial cavity, and surrounds the remaining thoracic organs
  - **Pericardial cavity** – encloses the heart
Body Cavities

- The abdominopelvic cavity is separated from the superior thoracic cavity by the dome-shaped diaphragm

- It is composed of two subdivisions
  - Abdominal cavity — contains the stomach, intestines, spleen, liver, and other organs
  - Pelvic cavity — lies within the pelvis and contains the bladder, reproductive organs, and rectum
Ventral Body Cavity Membranes

- **Parietal serosa** lines internal body walls, outer covering
- **Visceral serosa** covers the internal organs, "Saran Wrap"-like, adhere to organ itself
- **Serous fluid** separates the serosae
Ventral Body Cavity Membranes

Double Membrane = SACs
ex: pericardial, pleural
(♥)

Outer balloon wall
(comparable to **parietal serosa**)

Air (comparable to serous cavity)

Inner balloon wall
(comparable to **visceral serosa**)

**fluid**

Figure 1.10a
Ventral Body Cavity Membranes

Heart

Parietal pericardium

Pericardial space with serous fluid

Visceral pericardium

*not all organs will have a double membrane covering.*

Figure 1.10b
Other Body Cavities

- **Oral and digestive** – mouth and cavities of the digestive organs
- **Nasal** – located within and posterior to the nose
- **Orbital** – house the eyes
- **Middle ear** – contain bones (ossicles) that transmit sound vibrations
- **Synovial** – joint cavities
Abdominopelvic Quadrants

- Right upper (RUQ)
- Left upper (LUQ)
- Right lower (RLQ)
- Left lower (LLQ)

*Know major organs of each Quadrant*