The Human Body: An Orientation: Part B

Anatomical Position
- Standard anatomical body position:
  - Body erect
  - Feet slightly apart
  - Palms facing forward

Regional Terms
- Two major divisions of body:
  - Axial
    - Head, neck, and trunk
  - Appendicular
    - Limbs
- Regional terms designate specific areas

Body Planes
- Plane: Flat surface along which body or structure is cut for anatomical study

Body Planes
- Sagittal plane
  - Divides body vertically into right and left parts
  - Produces a sagittal section
- Midsagittal (median) plane
  - Lies on midline
- Parasagittal plane
  - Not on midline

Body Planes
- Frontal (coronal) plane
  - Divides body vertically into anterior and posterior parts
- Transverse (horizontal) plane
  - Divides body horizontally into superior and inferior parts
  - Produces a cross section
- Oblique section
• Cuts made diagonally

Anatomical Variability
• Over 90% of all anatomical structures match textbook descriptions, but:
  • Nerves or blood vessels may be somewhat out of place
  • Small muscles may be missing

Body Cavities
• Dorsal cavity
  • Protects nervous system
• Two subdivisions:
  • Cranial cavity
    • Encases brain
  • Vertebral cavity
    • Encases spinal cord

Body Cavities
• Ventral cavity
  • Houses internal organs (viscera)
  • Two subdivisions (separated by diaphragm):
    • Thoracic cavity
    • Abdominopelvic cavity

Ventral Body Cavities
• Thoracic cavity subdivisions:
  • Two pleural cavities
    • Each houses a lung
  • Mediastinum
    • Contains pericardial cavity
    • Surrounds thoracic organs
  • Pericardial cavity
    • Encloses heart

Ventral Body Cavities
• Abdominopelvic cavity subdivisions:
  • Abdominal cavity
    • Contains stomach, intestines, spleen, and liver
  • Pelvic cavity
    • Contains urinary bladder, reproductive organs, and rectum
Serous Membrane (Serosa)
• Thin, double-layered membrane separated by serous fluid
  • Parietal serosa lines internal body walls
  • Visceral serosa covers the internal organs

Abdominopelvic Regions
• Nine divisions used primarily by anatomists

Abdominopelvic Quadrants
• Divisions used primarily by medical personnel

Other Body Cavities
• Oral and digestive cavities
• Nasal cavity
• Orbital cavities
• Middle ear cavities
• Synovial cavities