

Organization of the Human Body

Body Cavities

- Ventral Cavity

- > Thoracic Cavity – contains heart and lungs
- > Diaphragm separates the two cavities
- > Abdominopelvic Cavities – contains

- Dorsal Cavity

- > Cranial Cavity – contains the brain
- > Vertebral Cavity – contains the spinal cord

Ventral Body Cavity cont...

- Abdominal Cavity

- > Peritoneal Cavity contains digestive organs, liver, spleen, and pancreas
- > Retroperitoneal Cavity – kidneys and ureter

- Pelvic Cavity

- > Contains the bladder, uterus, rectum, ovaries, prostate

- Thoracic Cavity

- > Pleural Cavity – contains the lungs
- > Pericardial Cavity – contains the heart
- > Mediastinum – area between lungs

Quadrants of the Abdomen

- ◉ RUQ
 - > Liver, pancreas, gallbladder
- ◉ RLQ
 - > appendix
- ◉ LUQ
 - > spleen
- ◉ LLQ
 - > intestines

9 regions – abdominopelvic

Right Hypochondriac Liver, gallbladder, colon	Epigastric Stomach, pancreas, colon	Left Hypochondriac Spleen colon
Right Lumbar Kidney, colon	Umbilical Small intestines, aorta, vena cava	Left Lumbar Kidney colon
Right Iliac Appendix, colon	Hypogastric Bladder, uterus, ovaries, rectum, prostate	Left Iliac colon

Body Membranes

- Help to separate internal and external environments
- Cover organs
- Protect organs

Body Membranes

- ◉ Cutaneous

- > Our protective external covering or skin

- ◉ MUCOUS

- > Covering the internal surface exposed to external environment – contains mucus

- ◉ Serous

- > Covers the heart, lungs, and abdominal organs
- > Always a 2 layered membrane with fluid between the layers to lubricate moving organs and reduce friction

Serous Membranes cont.

- Pleural
 - > Around the lungs
- Pericardium
 - > Around the heart
- Peritoneum
 - > Visceral – covers the organs
 - > Parietal – covers the inside of the cavity wall
 - > Serous fluid between them

Organization

- ◉ Atoms
- ◉ Compounds/molecules
- ◉ Cells
- ◉ Tissues
- ◉ Organs
- ◉ Organ systems
- ◉ organisms

Levels of Organization

- Chemicals = unite to form substances that make up cells
 - > Inorganic – simple molecules
 - > Organic – more complex
- Cells = smallest living unit
 - > Made up of chemicals
 - > Carries out specific chemical reactions
- Tissues = made up of a group of cells and are specialized into a certain type
 - > 4 types of tissues: epithelial, connective, muscular and nervous

Levels of Organization

- Organs= made up of a group of tissues that act together to perform a distinct function
 - > Need at least 2 types of tissues to form an organ
 - > Most organs contain all 4 types
- Systems= made up of a group of organs that work together for a common purpose
- Organism=precisely arranged and interact with each other in a specific way to maintain the functioning of the human body

12 systems

- ◉ 11 structural systems – contains organs
- ◉ 1 functional system – immune system
- ◉ Production of offspring
 - > Reproductive
- ◉ Protection, support, movement
 - > Integumentary, Skeletal and Muscular
- ◉ Coordination and control
 - > Nervous and endocrine
- ◉ Circulation
 - > Cardiovascular and lymphatic
- ◉ nutrition and fluid balance
 - > Respiratory, digestive, and urinary

