

بسم الله الرحمن الرحيم



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Medical Terminology First class



Body Organization & Terminology

3rd lecture

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Body Organization & Terminology



CELLS



TISSUES



ORGANS



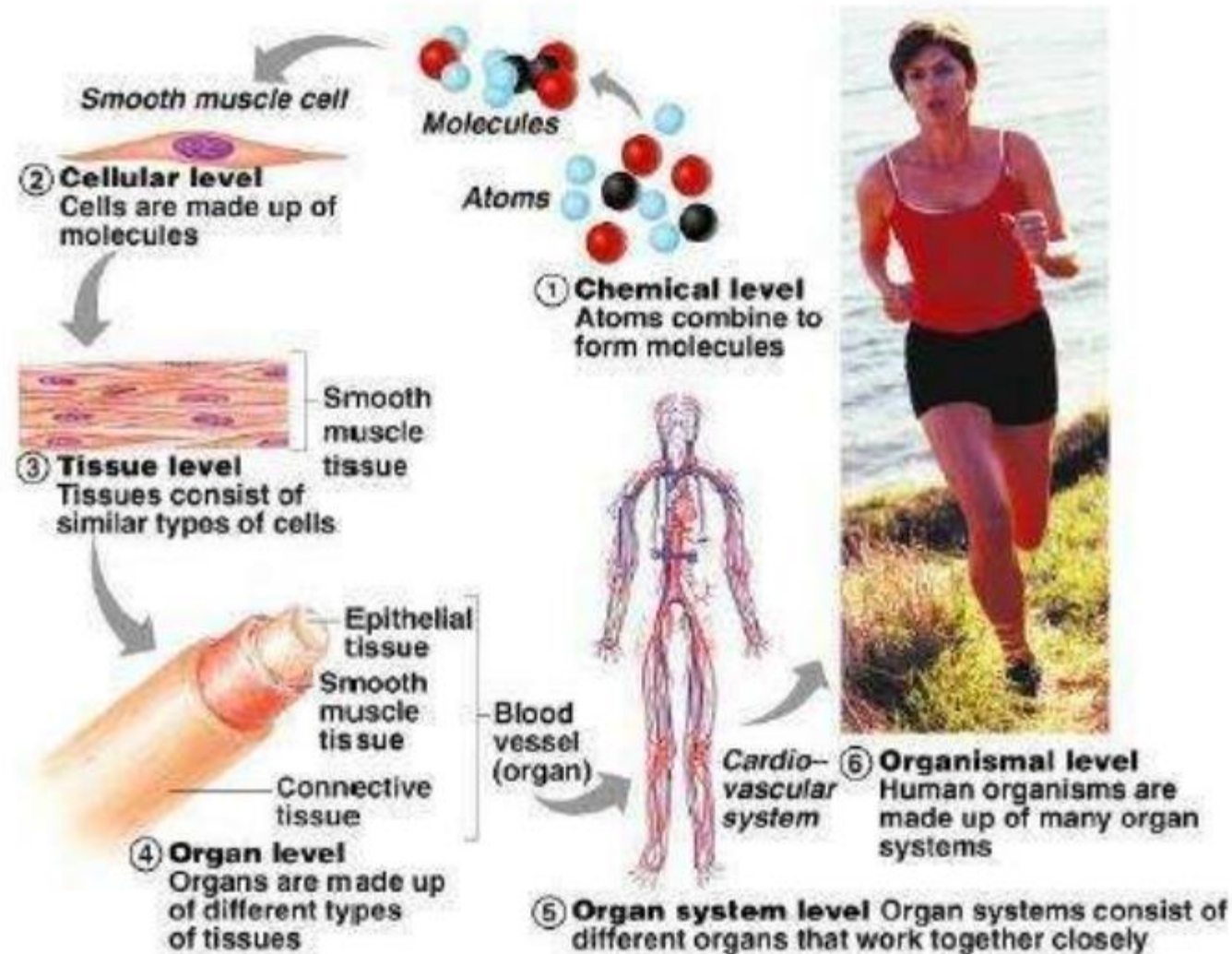
SYSTEMS



MeridianLife
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Levels of Structural Organization



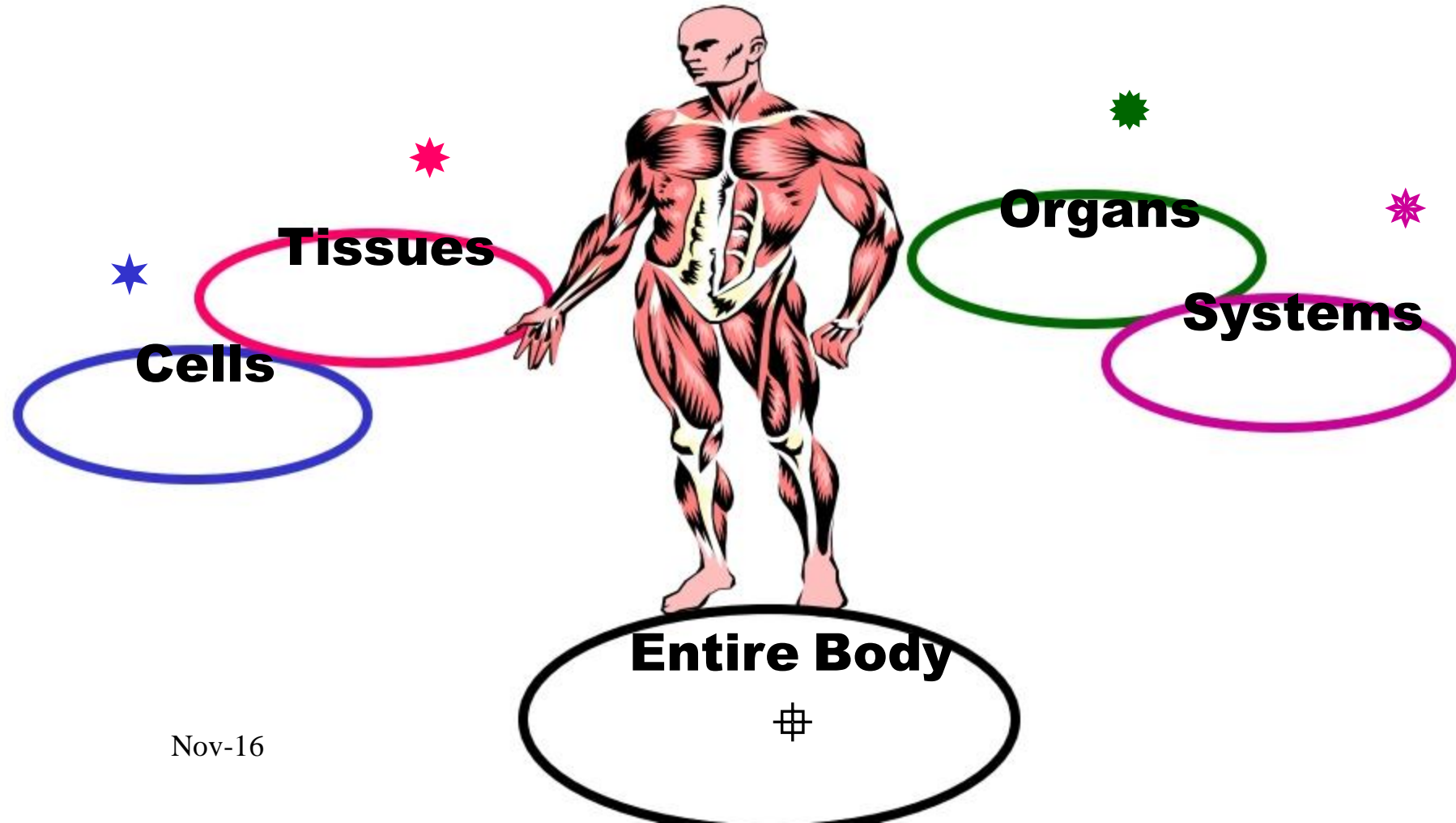
Levels of body Organization

- **Chemical** – atoms combined to form molecules
- **Cellular** – cells are made of molecules
- **Tissue** – consists of similar types of cells
- **Organ** – made up of different types of tissues
- **Organ system** – consists of different organs that work closely together
- **Organismal** – made up of the organ systems



Body Structure and Organization

The body is organized from its smallest element, the cell, to the collection of systems.



Anatomical Position

- **B**ody erect
- **F**eet slightly apart
- **P**alms facing forward
- **T**humbs point away from body



Anatomical
position

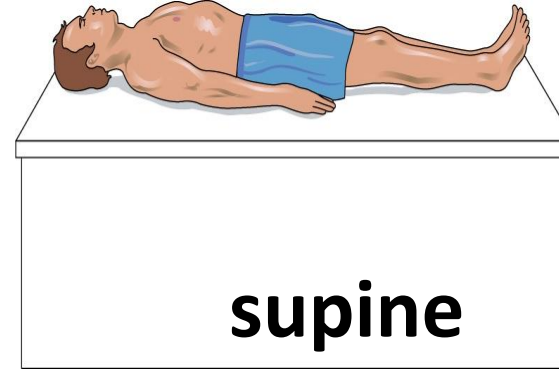
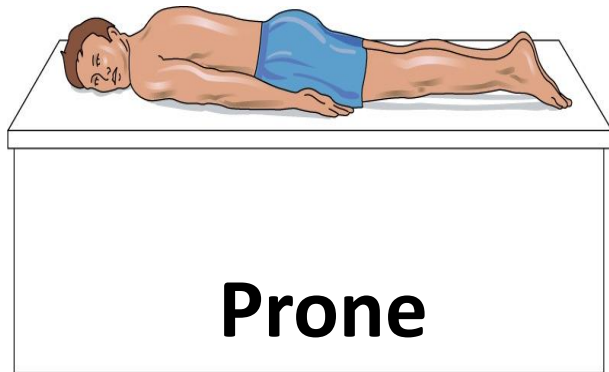


Body Position & Directional terms

Terms	Direction	Example
Anterior or Ventral	Toward the Front, away from the back of the Body	The nose is on the Anterior side of the face.
Posterior or Dorsal	Near the back , toward the back of the body	The spine is on the posterior side of the body
Superior or cephalic	Above , toward the head	The neck is superior to the chest
Inferior or Caudal	Below , toward the soles of the feet	The Knee is inferior to the hip The stomach is inferior to the chest.
Proximal	Near the point of attachment to the trunk	The elbow is proximal to the wrist
Distal	Farther from the point of the attachment to the trunk	The fingers are Distal to the wrist.
Lateral	Pertaining to the side, away from the middle	The eyes are lateral to the nose



Terms	Direction	Example
Medial	Towards the middle of the body	The nose is medial to the eyes
Prone	Lying Horizontal and Face down	
supine	Lying Horizontal and Face up	



Body placement positions that make examination, treatment or surgery easier

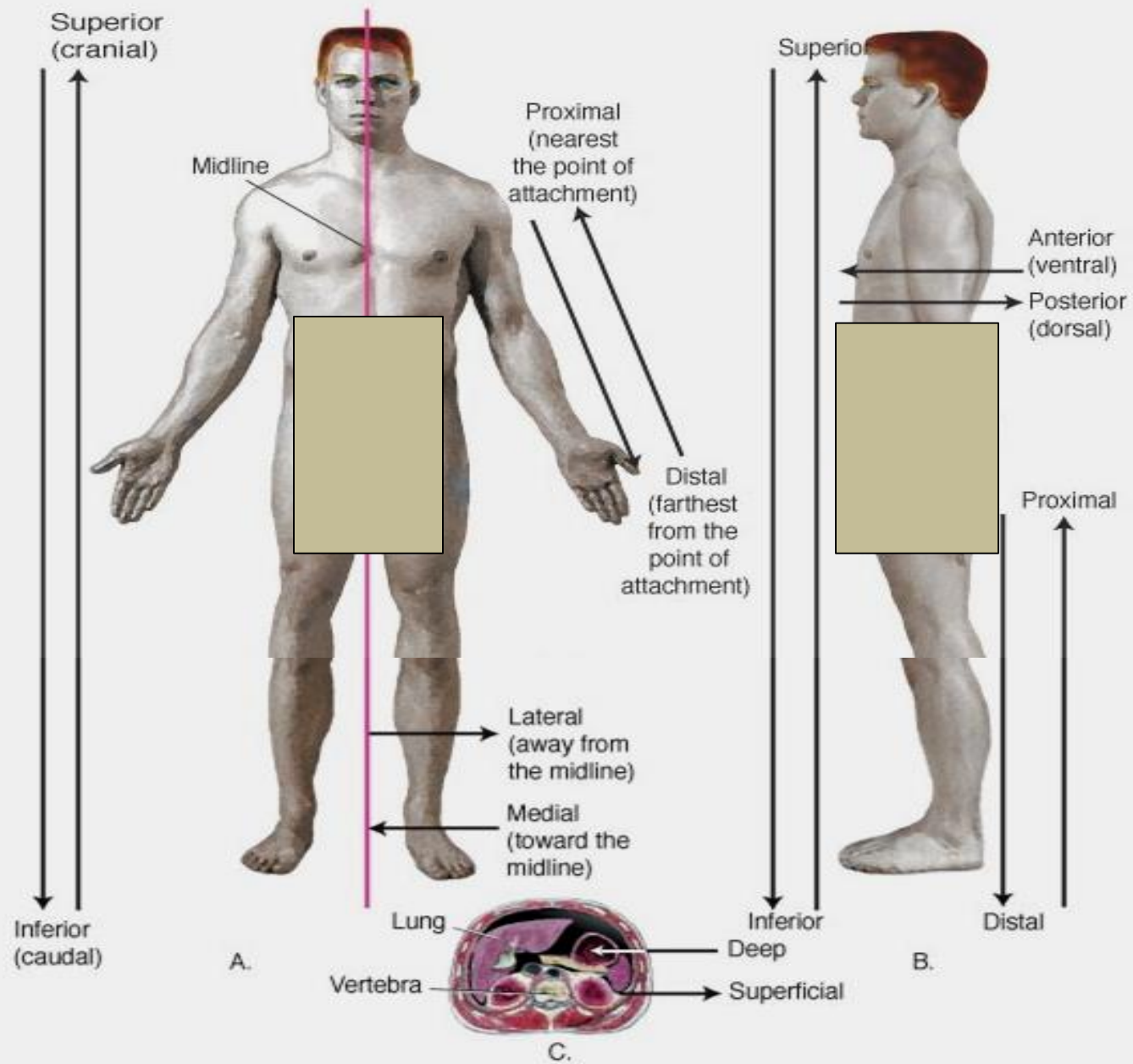


Supine



Prone





Body planes

1- frontal plane(coronal) ;

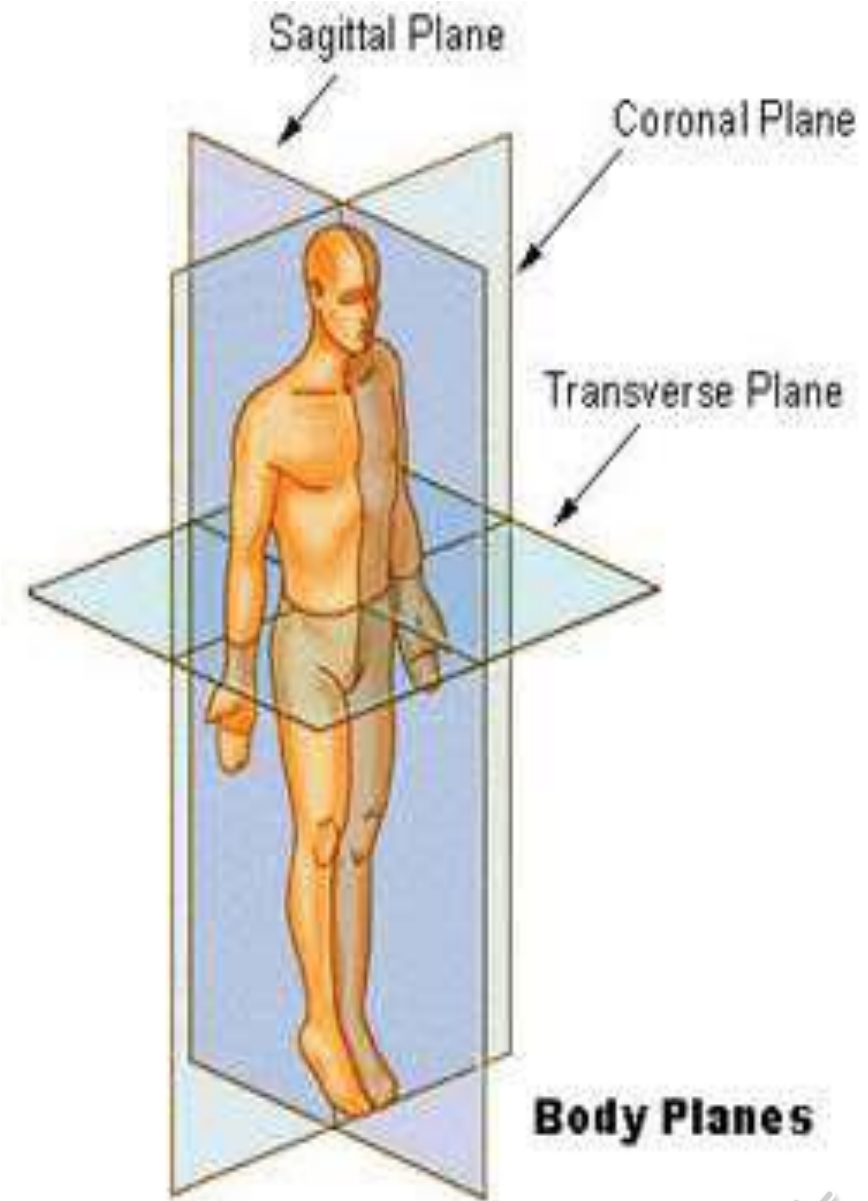
this plane separate

the body into front and back portion (also called anterior and posterior portion).

2- sagittal plane: this vertical plane divides the body or organ into unequal left and right sides . **The midsagittal plane divides the body** or organ into equal left and right sides.

3- transverse or horizontal plane:

this plan separates the body into superior and inferior portions.



Body cavity and divisions

Body cavity: a hallow space that contain body organs, has two major cavities

1- The cavity in the back of the body called (dorsal cavity) subdivided into

- **Cranial cavity**
- **Spinal cavity**

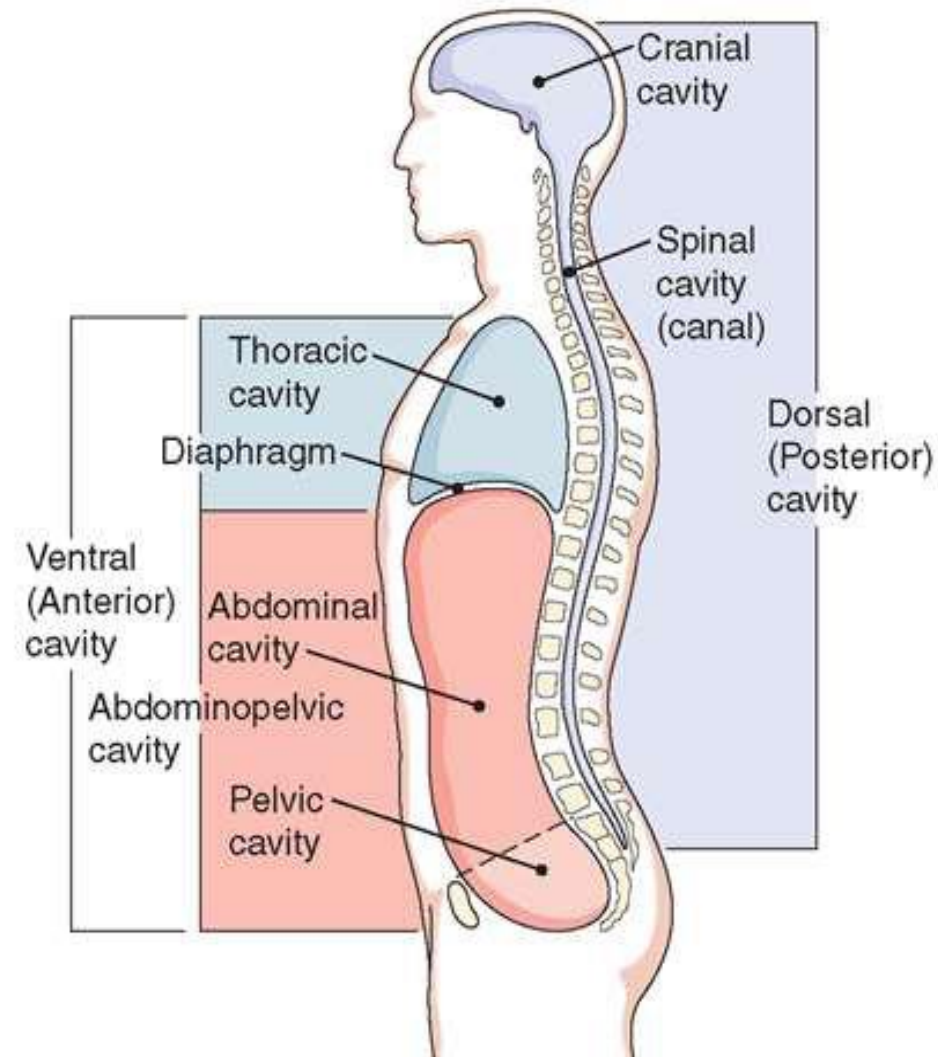
2- The frontal body cavity called (ventral cavity) extend from the neck to the pelvis and is subdivided into

-Thoracic cavity

-- Abdominal cavity

- Pelvic cavity .

abdominopelvic



Cranial cavity

Vertebral cavity

Superior mediastinum

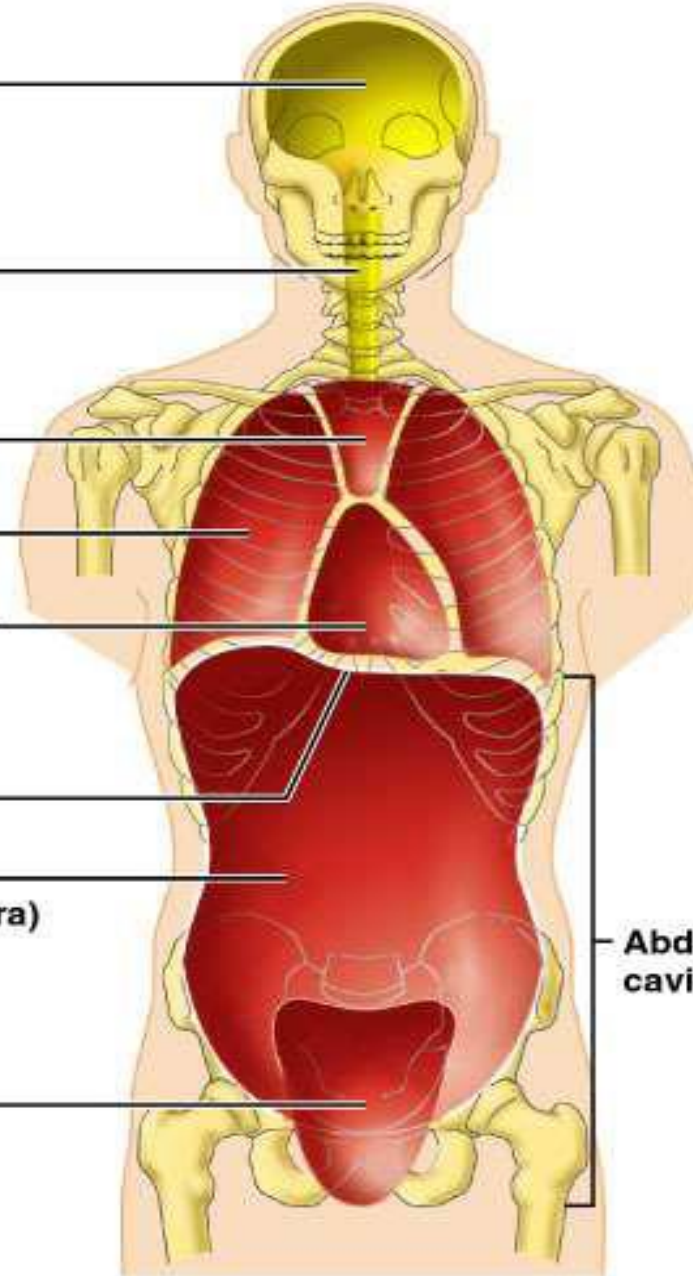
Pleural cavity

Pericardial cavity within
the mediastinum

Diaphragm

Abdominal cavity
(contains digestive viscera)


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




Ventral body cavity
(thoracic and
abdominopelvic
cavities)

Abdominopelvic
cavity

Key:

 Dorsal body cavity

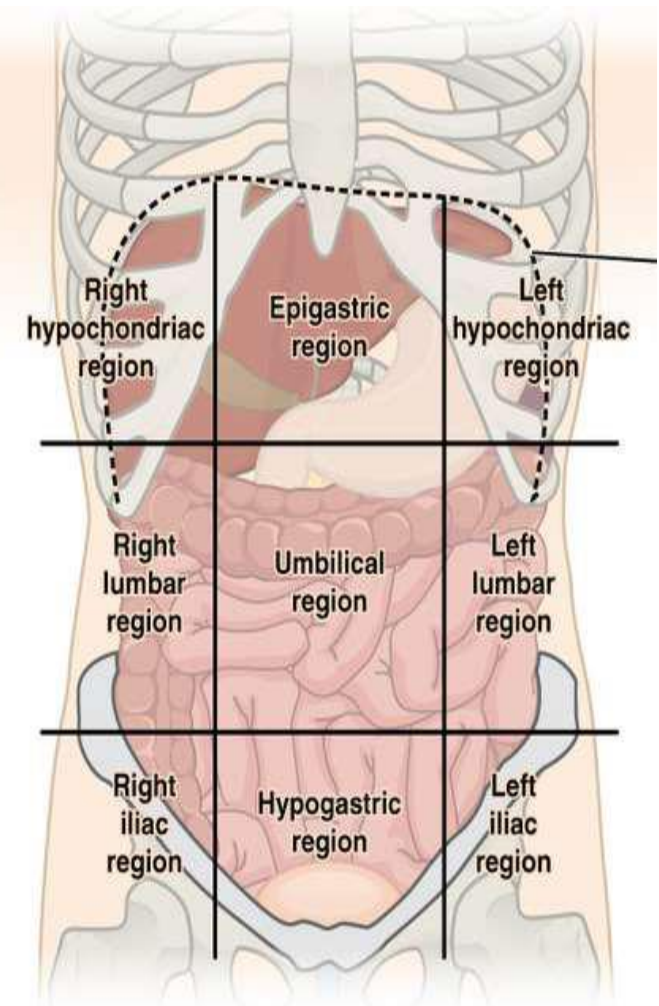
 Ventral body cavity

(b) Anterior view



Division of abdominal cavity (nine regions)

Hypochondriac (2)	they are right & left region located Below the ribs; also used as a noun to refer to a person who has imaginary illness Hypo- (below), -chondriac (ribs).
Epigastric	Above the Stomach situated between right & left Hypochondriac region . Epi (Above); gastric (stomach).
Lumber (2)	they are right & left region located at the waist level on either side of the navel (umbilicus)
Umbilical	Is the middle section it contain belly button or umbilicus
Hypogastric	Below the Stomach , located in the middle section below the Umbilical region . Hypo- (Below); -gastric (stomach).
Inguinal (2)	they are right & left inguinal region they are located on either side of the Hypogastric section . Inguinal is also refers to Groin



(a) Abdominopelvic regions



Abdominopelvic Quadrants

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

