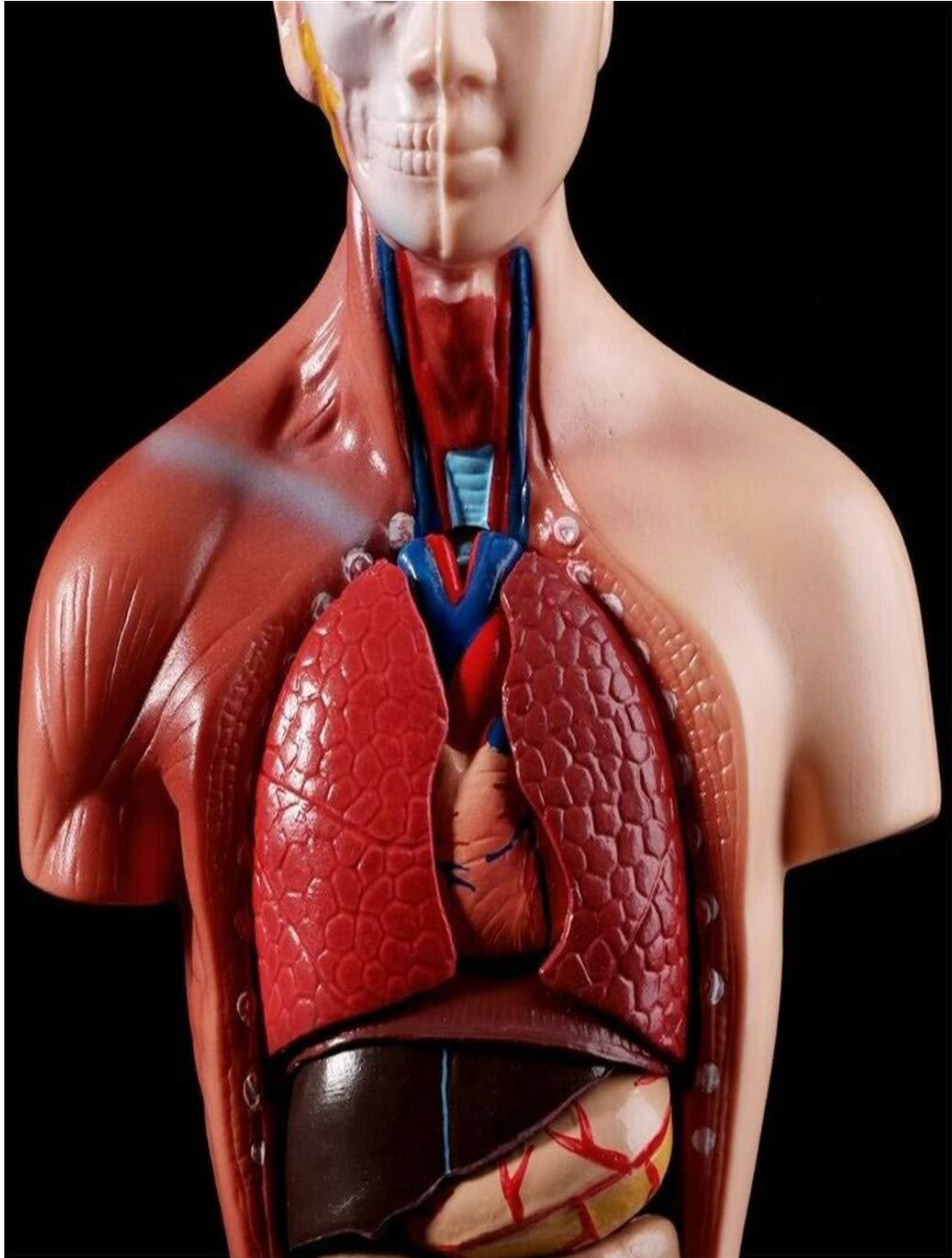


# Introduction to human anatomy

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**Anatomy** - the study of the structure of body parts and their relationships to one another.

**Physiology**: the study of the function of the body's structural machinery.

**Clinical anatomy**: It's the study of the macroscopic practice of the medicine and other healthy science.



**Gross or macroscopic**

**regional** - all structures in one part of the body (such as the .(abdomen or leg)

**Systemic** - gross anatomy of the body studied by system

**Surface** - study of internal structures as they relate to the overlying skin



**Microscopic**

**Cytology** - study of the cell .

**Histology** - study of tissues .

**Developmental anatomy**: structural changes over time

**Embryology** - study of developmental changes of the body before birth

## Specialized Branches of Anatomy

**Pathological Anatomy** - Study of structural changes caused by disease.

**Radiographic anatomy** - study of internal structures visualized by X - ray.

**Molecular biology** - study of anatomical structures at a sub-cellular level.

### Direction and relative position

Medial x lateral

anterior x posterior

superior x inferior

external x internal

proximal x distal

palmer x dorsal

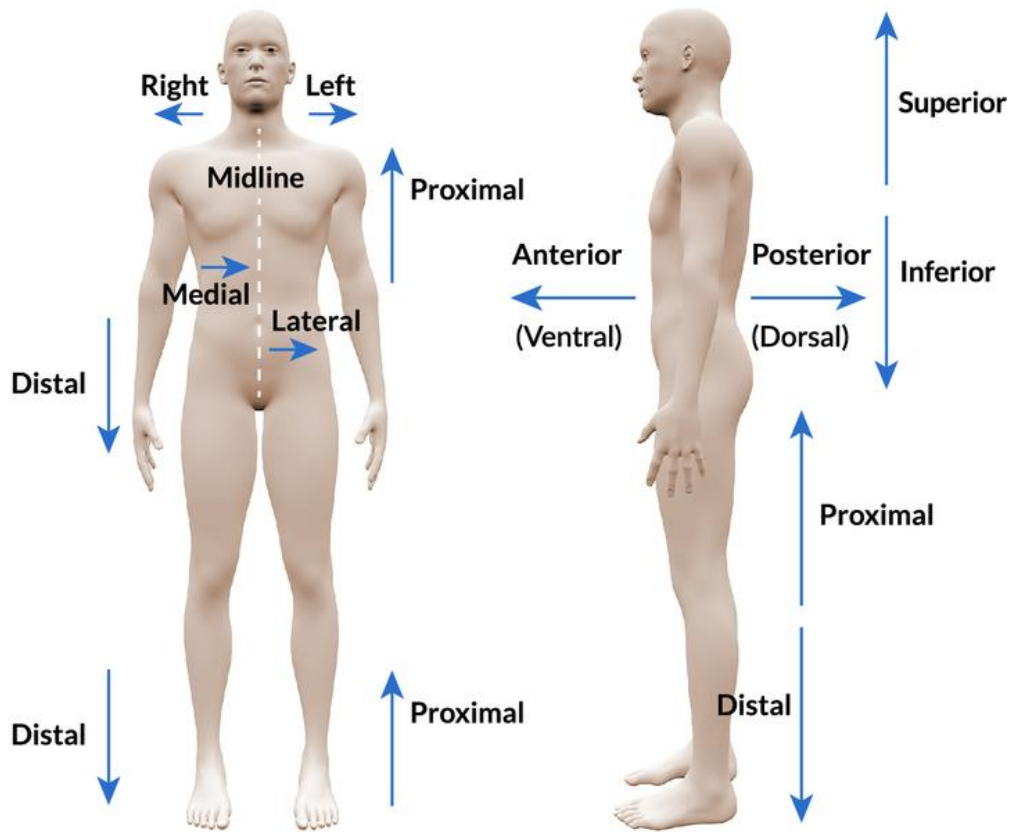
planter x dorsal

superficial x deep

supine x prone

### Anatomical position :

- 1.Body erect .
- 2.Feet slightly apart.
- 3.Palms facing forward .
- 4.Thumbs point away from body



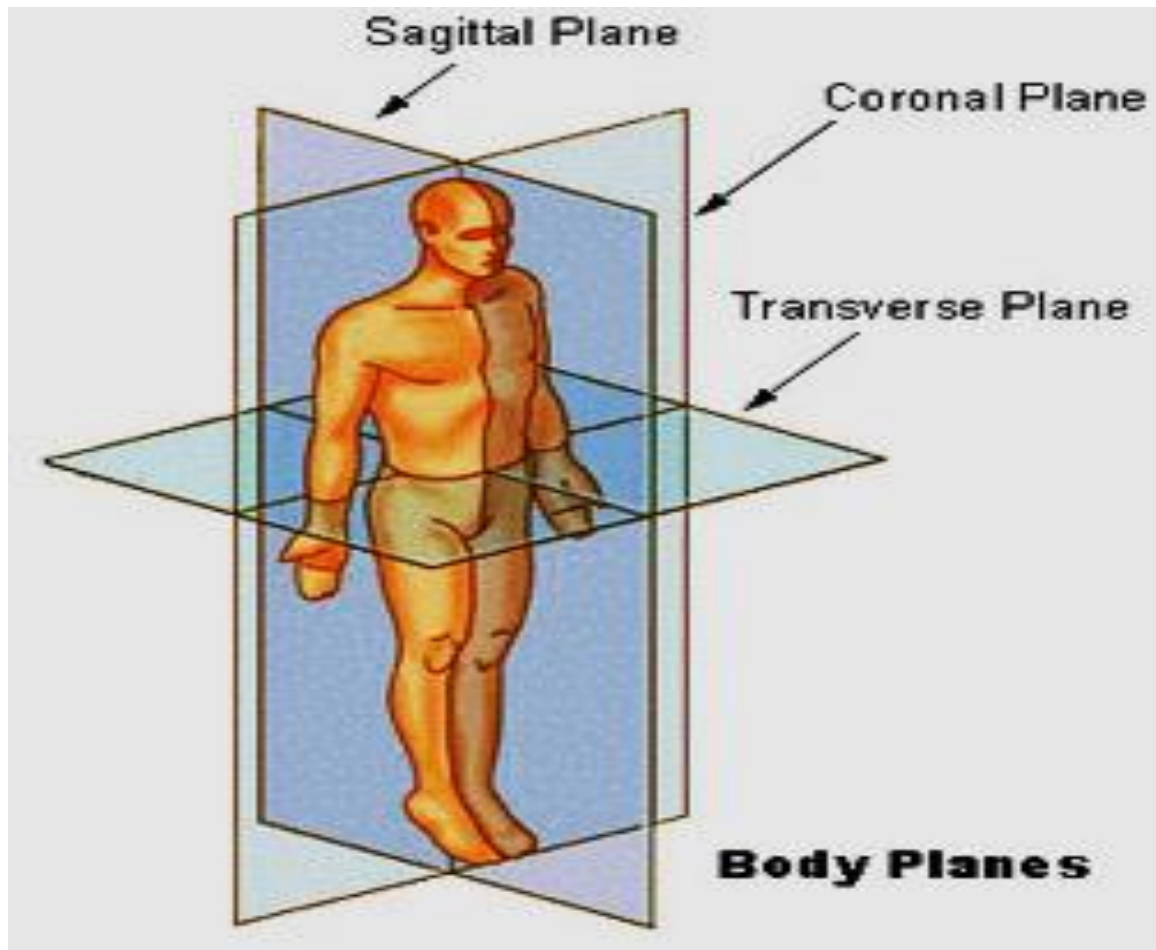
## Body Planes

**Sagittal** - divides the body into right and left parts.

**Midsagittal or medial** - sagittal plane that lies on the midline .

**Frontal or coronal** - divides the body into anterior and posterior parts.

**Transverse or horizontal (cross section)** - divides the body into superior and inferior parts.



## 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 cavity.

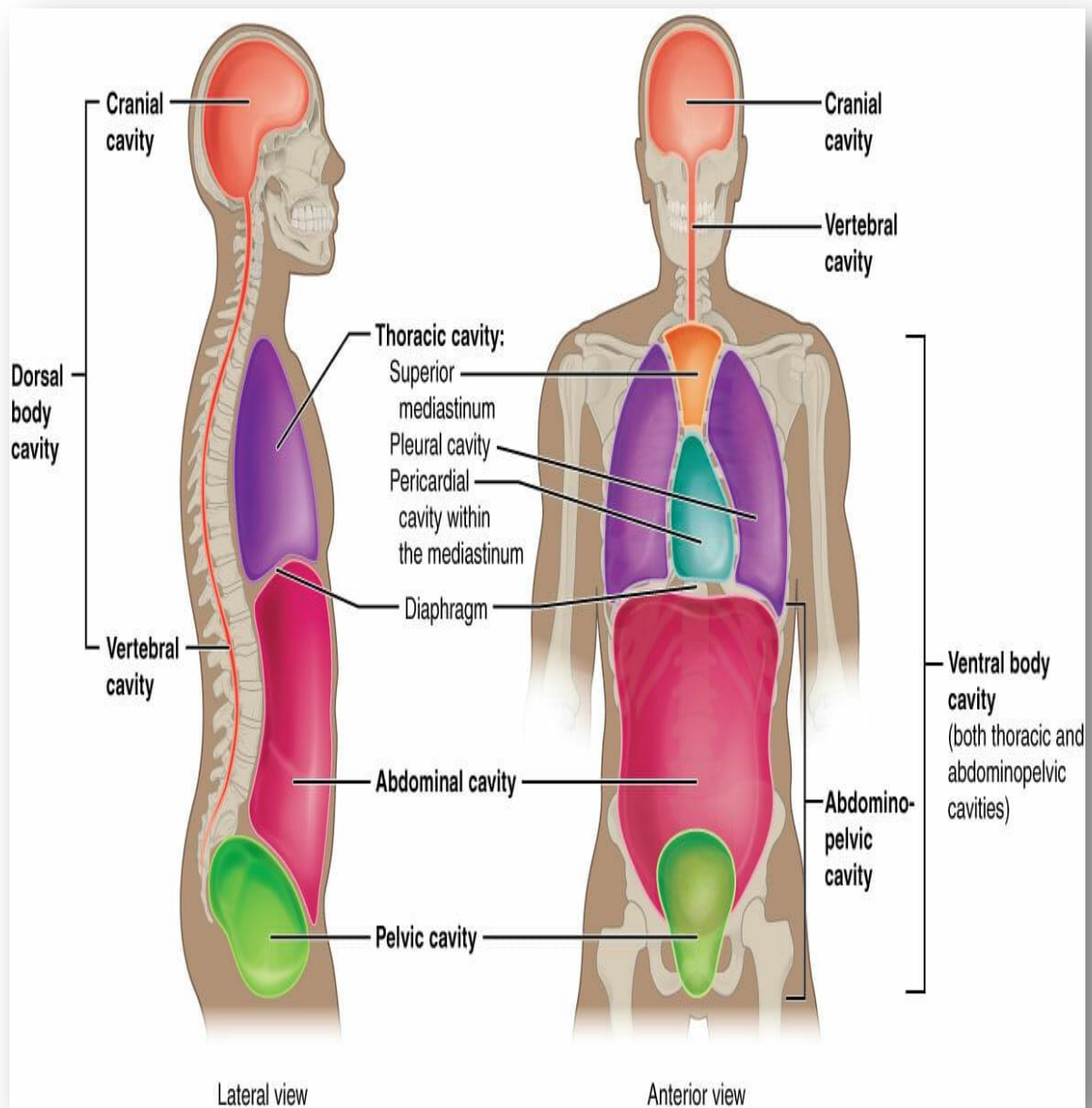
-- Abdominopelvic cavity .

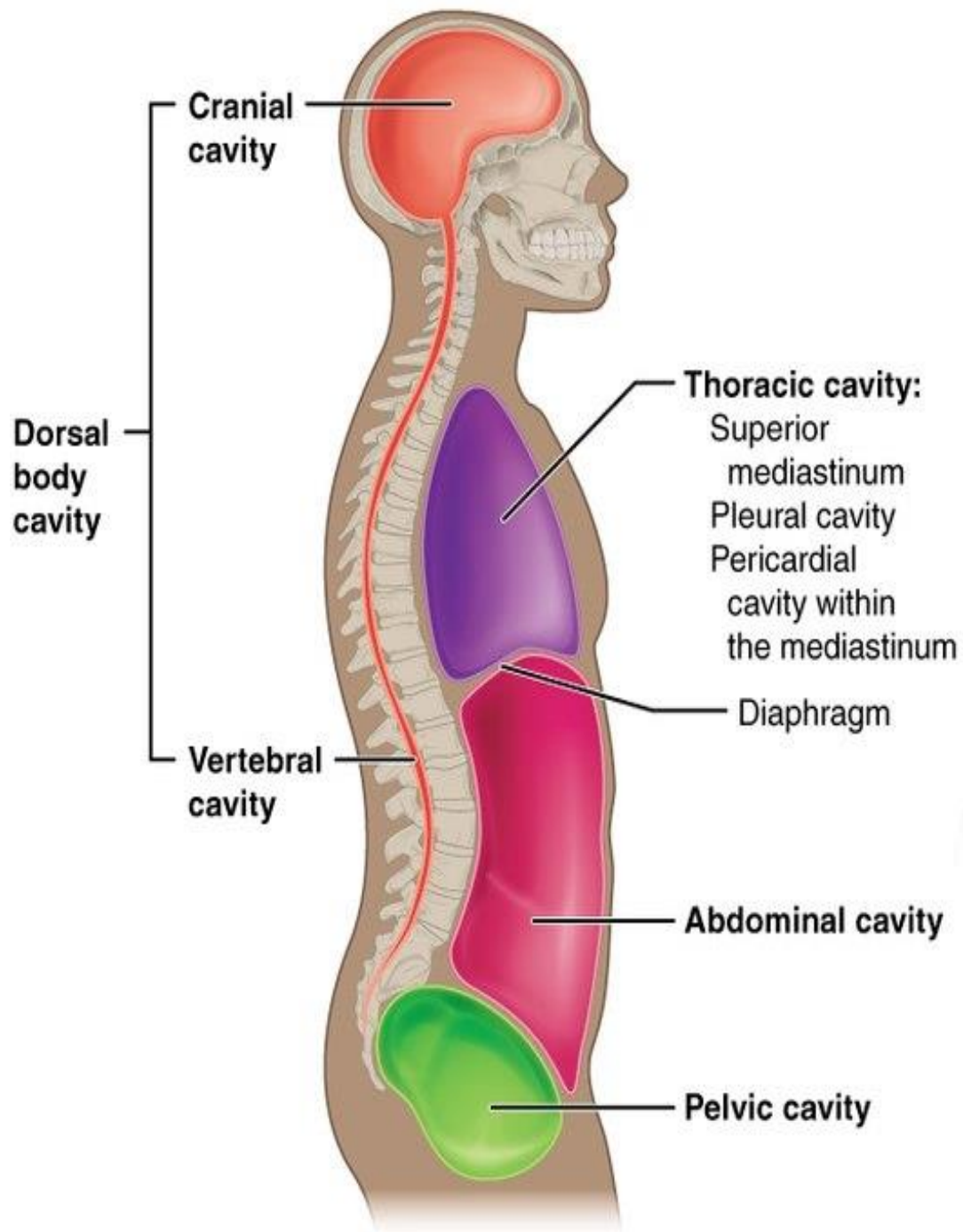
**Thoracic cavity** : is subdivided into

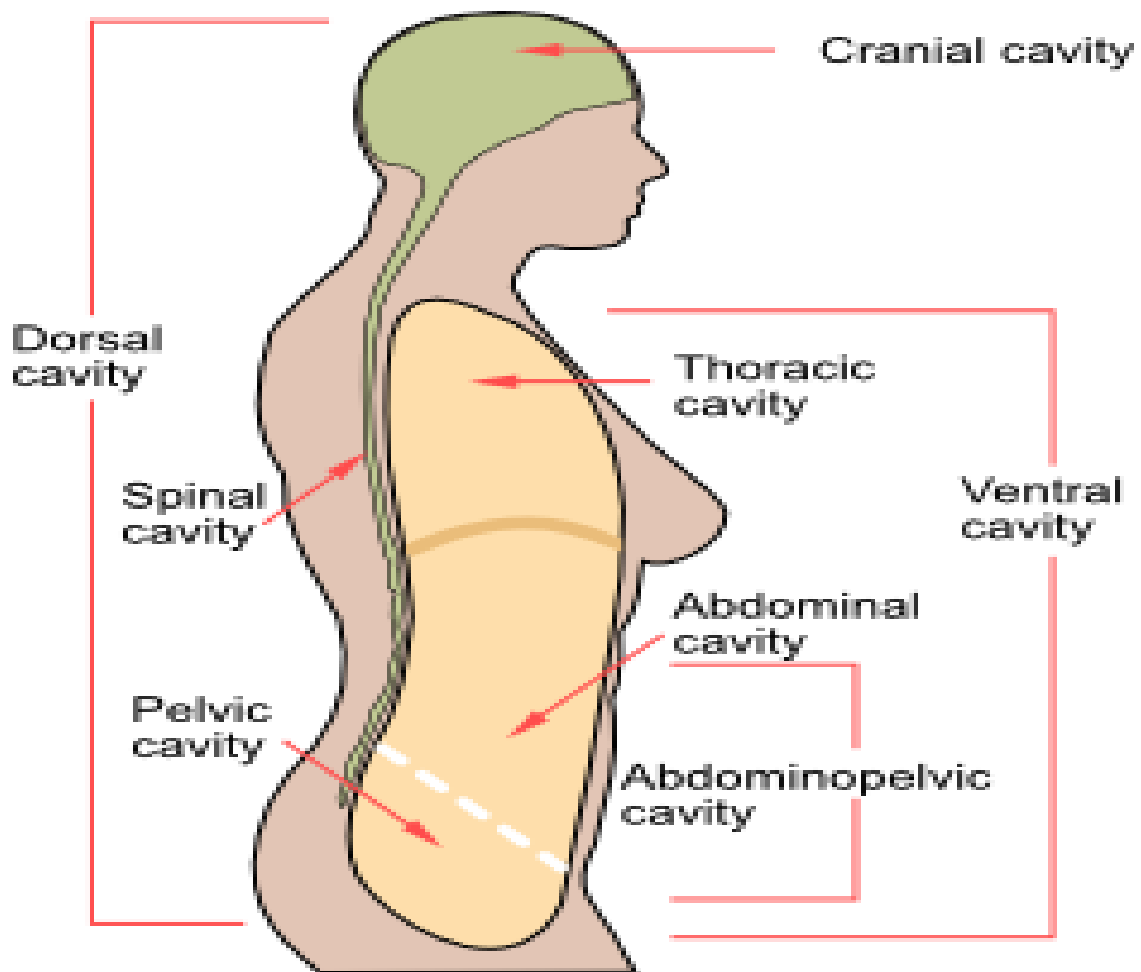
**Pleural cavities** - each houses a lung

**Mediastinum** : contains the pericardial cavity , and surrounds the remaining thoracic organs

**Pericardial cavity** : encloses the heart.







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

It is composed of two subdivisions :

### Abdominal cavity

contains the..

1- stomach

4-liver

2- intestines

5- other organs .

3-spleen

## Pelvic cavity

lies within the pelvis and contains the...

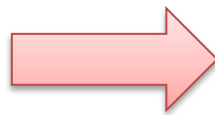
- 1- bladder
- 2- reproductive organs
- 3- rectum

**oral cavity**



**mouth cavity**

**Nasal cavity**



**located within and poster to the nose**

**Orbital cavity**



**house the eyes**

**Middle ear cavity**



**contain bones that transmit sound vibrations .**

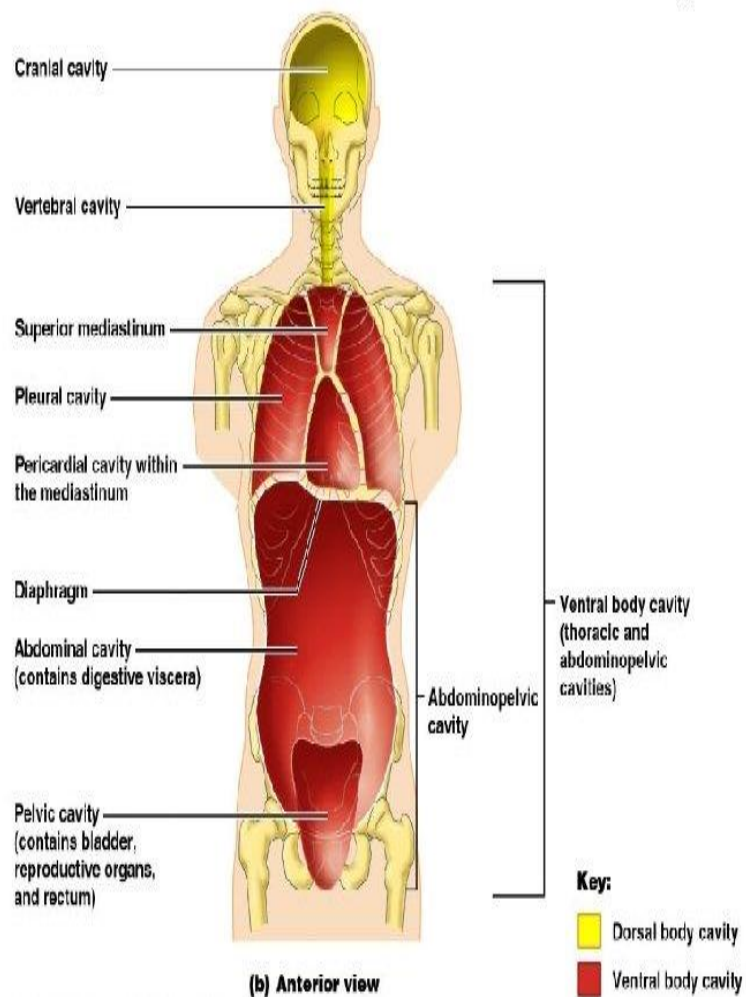
**Synovial cavity**



**joint cavities**

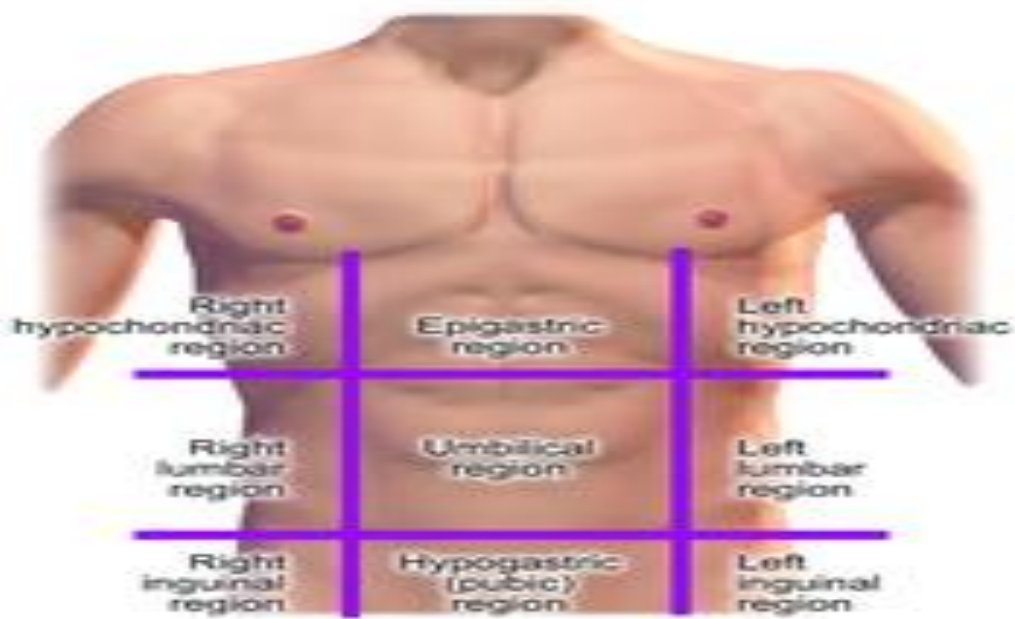
# Body Cavities

Figure 1.9b



## Abdominopelvic Regions

1. Umbilical
2. Epigastric
3. Hypogastric
4. Right and left iliac or inguinal
5. Right and left lumbar
6. Right and left hypochondriac



## Abdominopelvic Regions

### Organs of the abdominopelvic regions

