



MEDICAL TERMINOLOGY

Body Structure

- The human body consists of several structural and functional levels of organization. The levels of organization from the least to the most complex are the:

- **Cellular level**, the smallest structural and functional unit of the body
- **Tissue level**, groups of cells that perform a specialized function
- **Organ level**, groups of tissues that perform a specific function

- **System level**, groups of organs that are interconnected or that have similar or interrelated functions
- **Organism level**, collection of body systems that makes up the most complex level—a living human being.

BASIC STRUCTURAL UNITS

Word Element	Meaning	Word Analysis
chondr/o	cartilage	chondr/oma : tumor of the cartilage -oma : tumor
cyt/o	cell	cyt/o/meter : instrument for counting and measuring cells -meter : instrument for measuring cyt/o/toxic : substance that is detrimental or destructive to cells -toxic : poison

hist/o

tissue

hist/o/lysis: separation;
destruction; or loosening of
tissue

-lysis: separation; destruction;
loosening

nucle/o

nucleus

nucle/ar: pertaining to a
nucleus

-ar: pertaining to



DIRECTIONAL

Word Element	Meaning	Word Analysis
anter/o	anterior, front	anter/ior : toward the front of the body, organ, or structure <i>-ior</i> : pertaining to
caud/o	tail	caud/ad : toward the tail; in a posterior direction <i>-ad</i> : toward

dist/o	far, farthest	dist/al : pertaining to a point farthest from the center, a medial line, or the trunk; opposed to proximal -al : pertaining to
dors/o	back (of body)	dors/al : pertaining to the back or posterior of the body -al : pertaining to
infer/o	lower, below	infer/ior : pertaining to below or lower; toward the tail -ior : pertaining to

later/o	side, to one side	later/al : pertaining to the side -al: pertaining to
medi/o	middle	medi/al : pertaining to the middle -al: pertaining to
poster/o	back (of body), behind, posterior	poster/ior : pertaining to or toward the rear or caudal end -ior: pertaining to

proxim/o	near, nearest	proxim/al : nearest the point of attachment, center of the body, or point of reference -al : pertaining to
super/o	upper, above	super/ior : pertaining to above or higher; toward the head -ior : pertaining to
ventr/o	belly, belly side	ventr/al : pertaining to the belly side or front of the body -al : pertaining to

What is the difference between anatomy and physiology?

- Briefly, *anatomy* is the study of the body, and *physiology* is the study of the body's functions



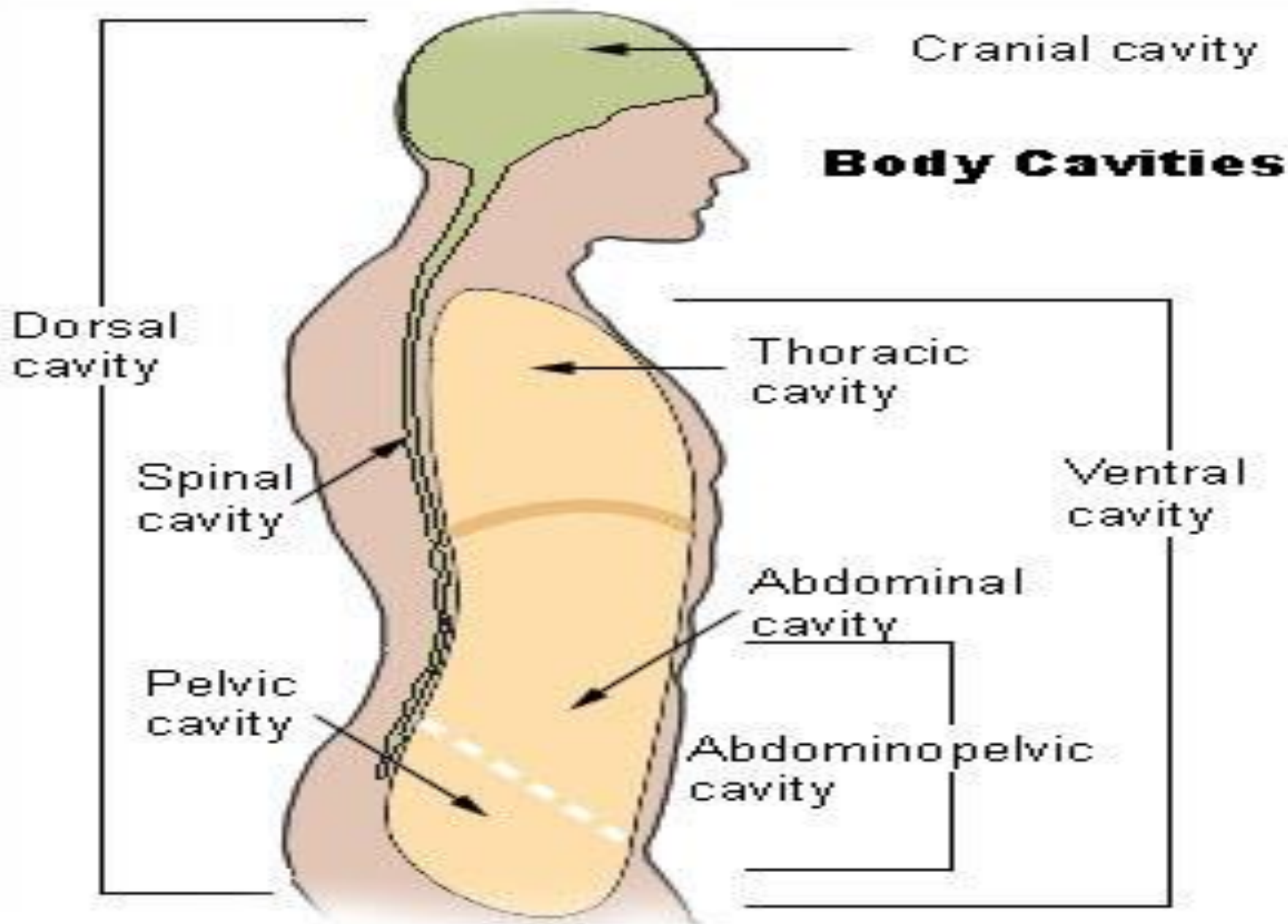
What are the names of the two main body cavities?

- The two major body cavities, one in the front of the body and one in the back, the front body cavity is called the ***ventral cavity***. The cavity in the back of the body is called the ***dorsal cavity***



the two major body cavities and their subdivisions

- *ventral cavity*
 - 1. thoracic
 - 2. abdominopelvic
- *dorsal cavity*
 - 1. cranial
 - 2. spinal



New roots related to the body

Root

- Abdomen/o
- Crani/o
- Thorac/o
- Angi/o
- My/o
- Pneum/o
- Pneumon/o
- Pneumat/o

Meaning

- abdomen
- Skull
- Chest
- Vessel
- Muscle
- Lung



Exercise: write the definition of the followings:

- **Visceromegaly**

- **Craniopathy**

- abnormal enlargement of an organ
- abnormal condition of any of the cranial bones

- Angioplasty

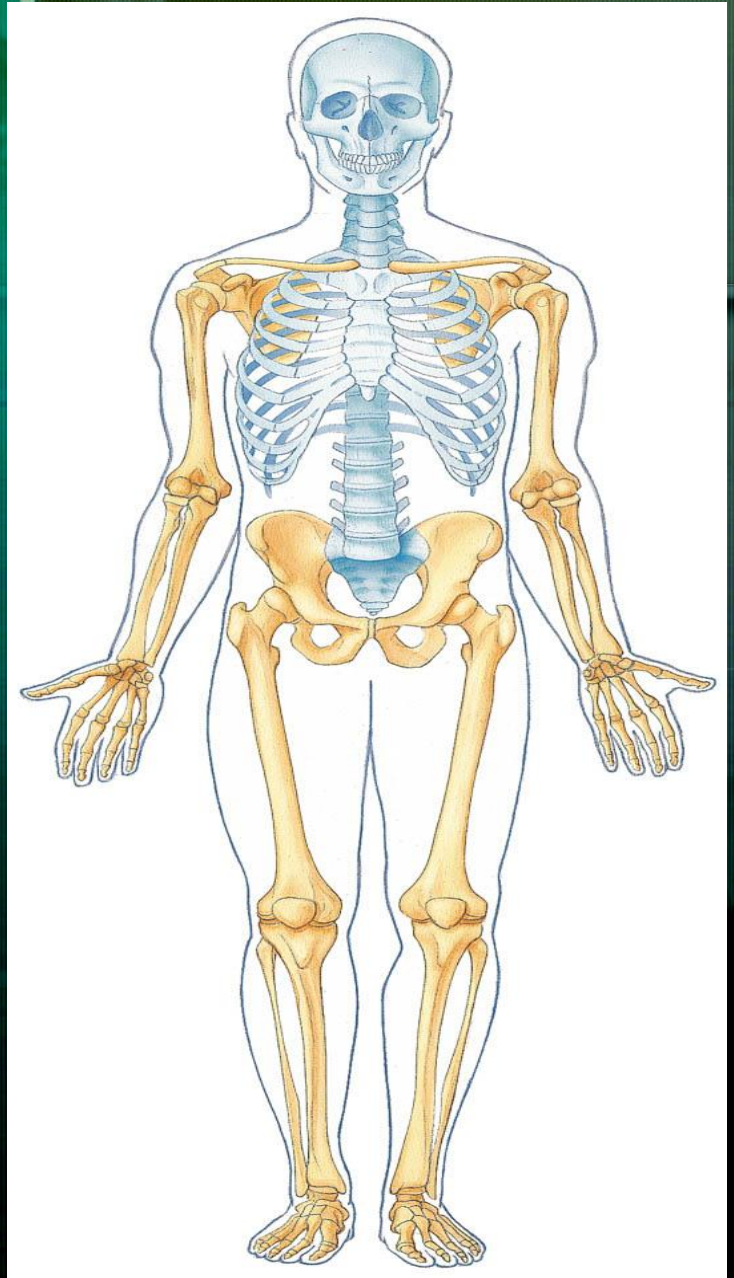
- Myalgia

- Pneumatocele

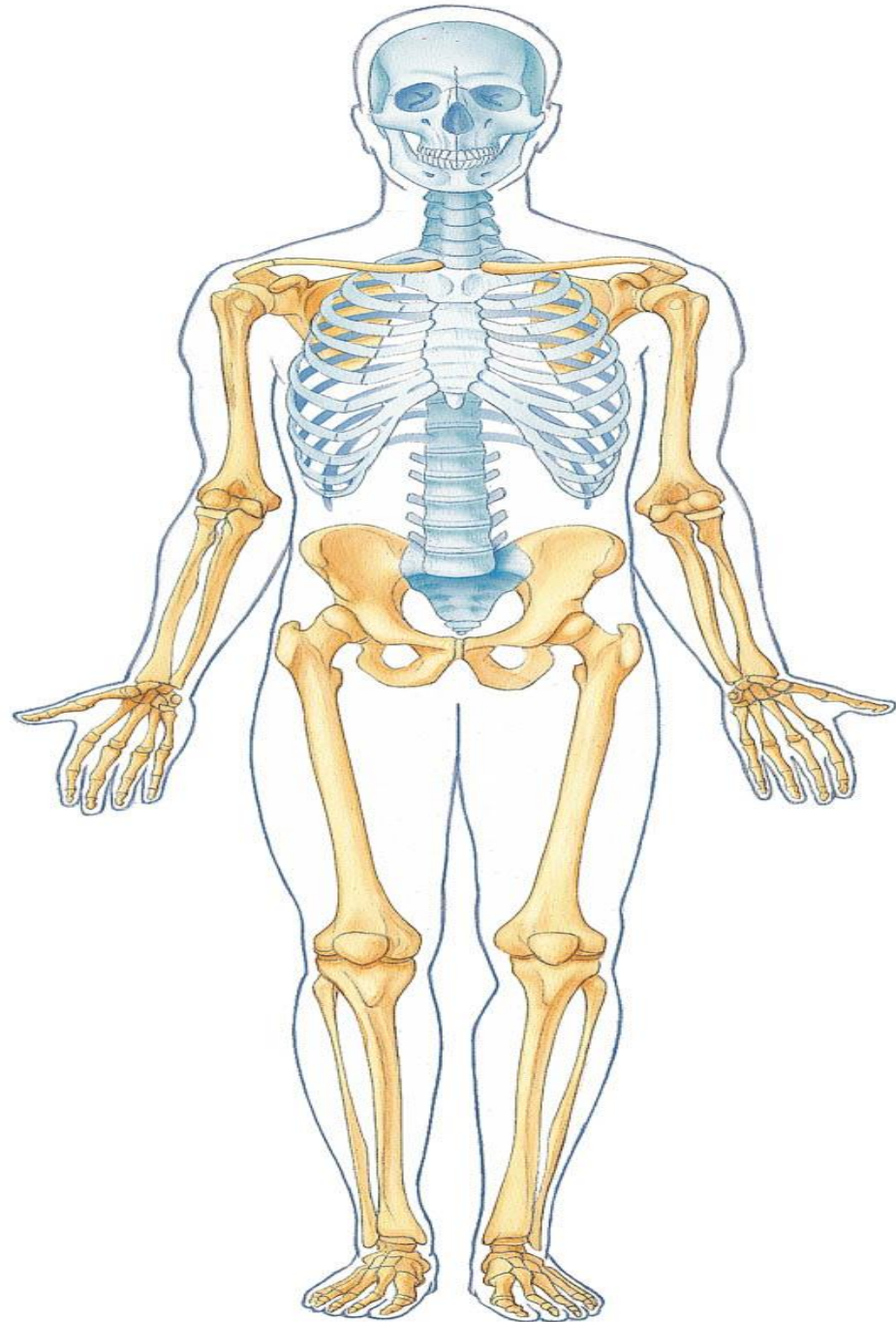
- surgical repair by opening a clogged blood vessel
- muscle pain
- protrusion of the lung



- In the anatomic position, the body is erect and facing forward with the palms of the hands also facing forward.



- Referring to the Figure, you can see that the ear is *lateral* to the nose, the elbow is *proximal* to the wrist, the ankle is *distal* to the knee, the nose is *superior* to the chest and *medial* to the ears, etc.





Thank you