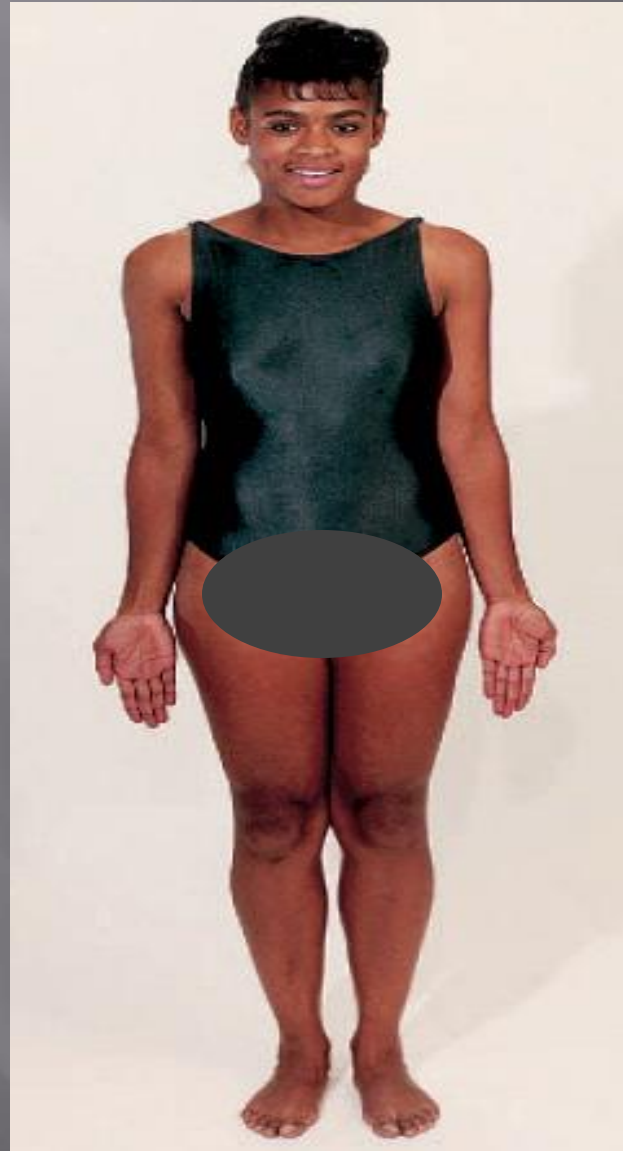


Anatomy

Chapter one

*Anatomic
nomenclature*

Anatomic position

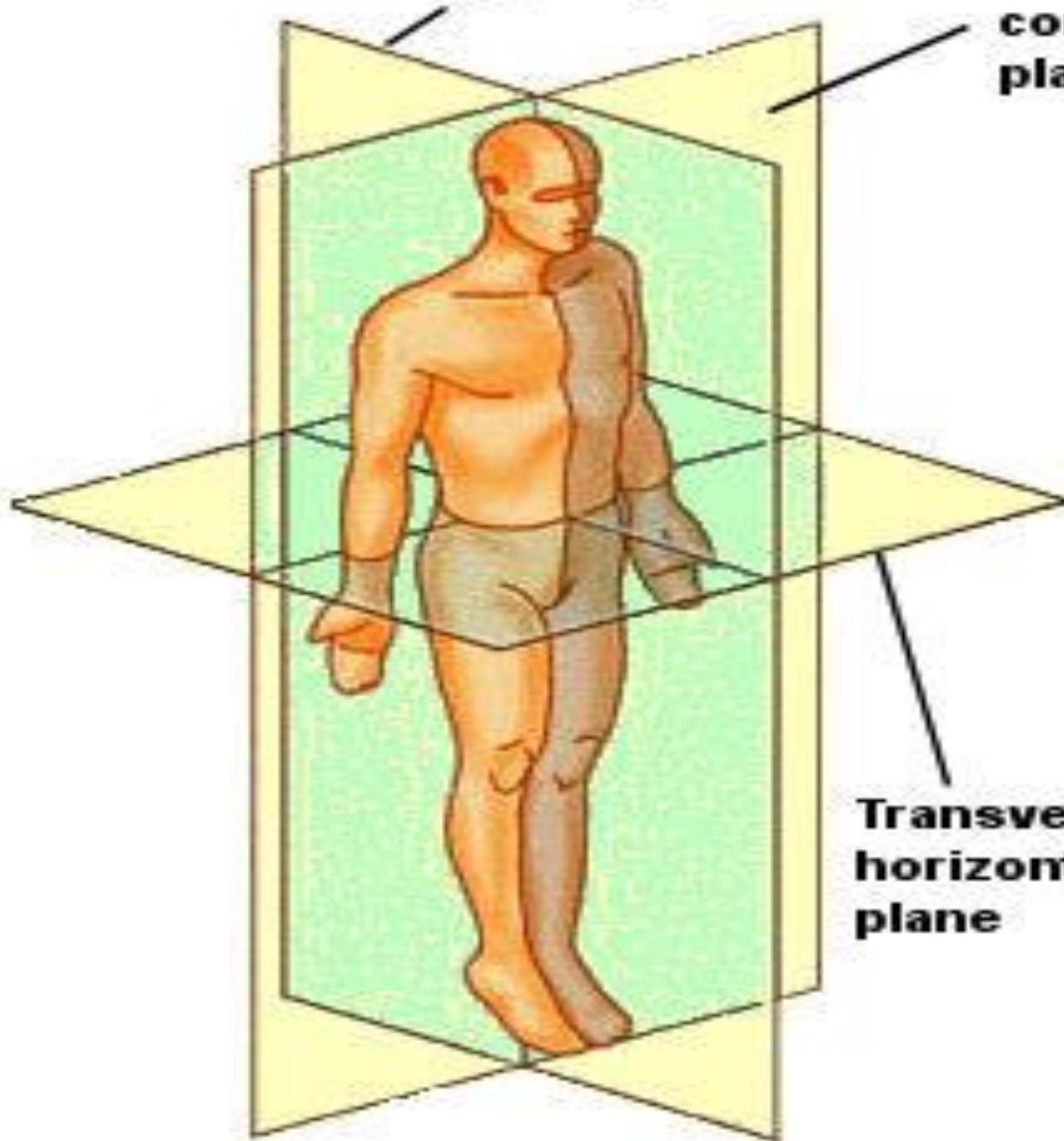


Planes of Reference of Body

- ▣ The body is diagrammed into three fundamental planes of reference in order to visualize and study the structural arrangements of various organs.
- ▣ **Coronal plane / frontal plane**, is a vertical plane that divides the body into anterior (front) and posterior(back) parts.
- ▣ **Transverse plane / cross-sectional plane / horizontal plane** cuts the body or organ perpendicularly into superior(upper) and inferior(lower) parts.
- ▣ **A midsagittal plane / median plane**, extends through the body or organ vertically and divides the structure into right and left halves.

Median / saggital plane

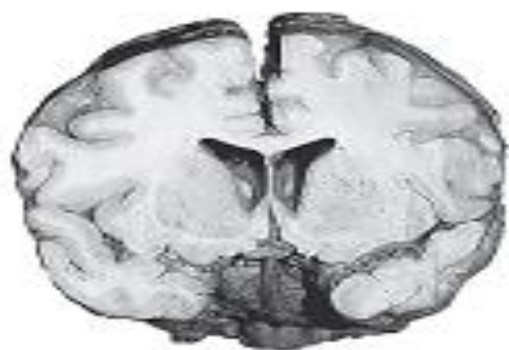
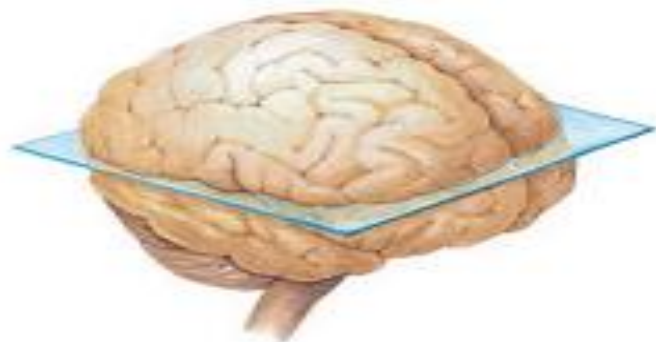
**Frontal /
coronal
plane**



**Transverse /
horizontal
plane**



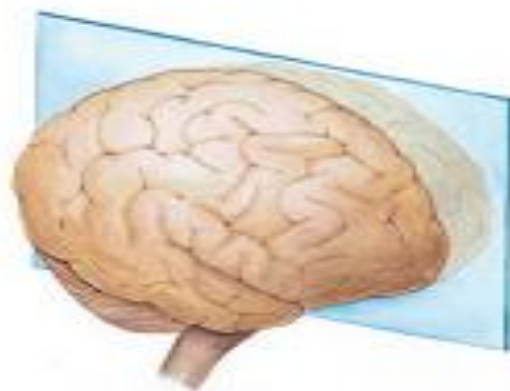
(a)



(b)



(c)

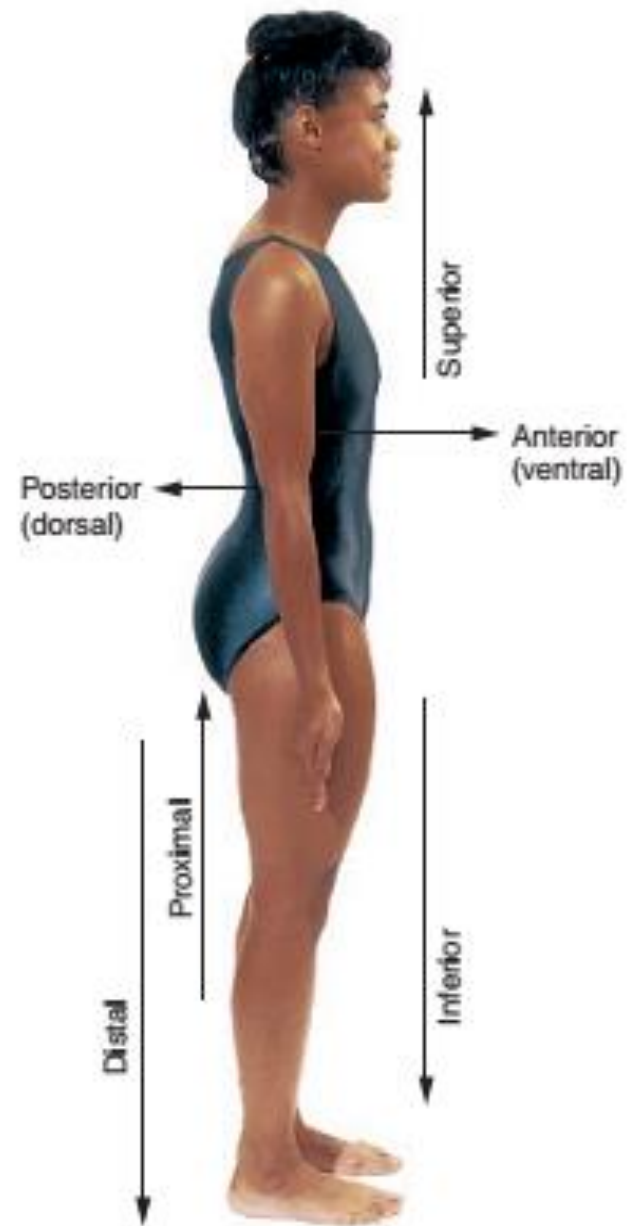
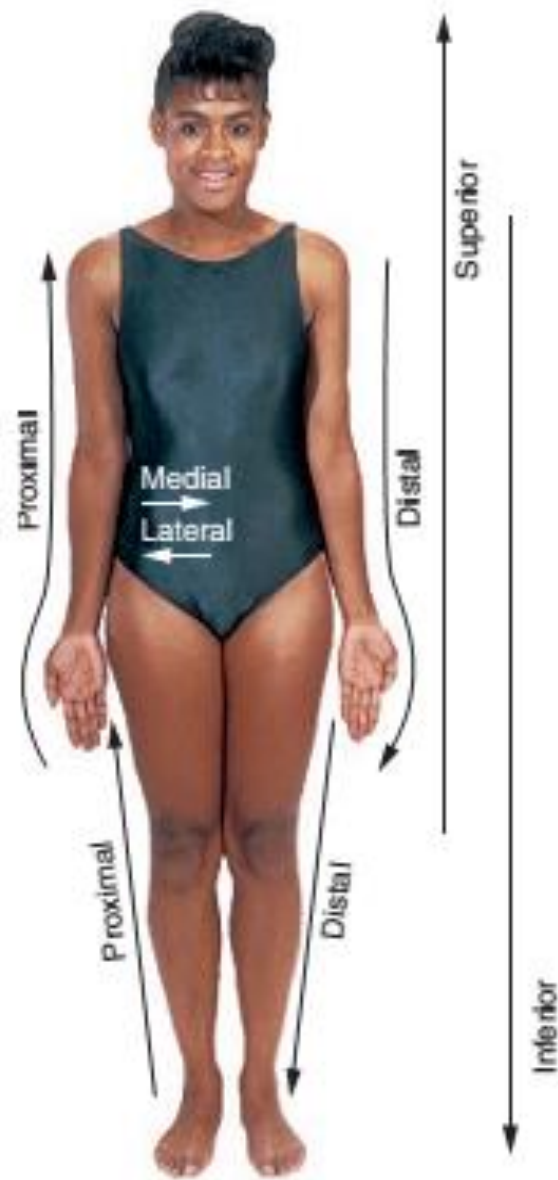


The human brain sectioned along (a) a transverse plane, (b) a coronal plane, and (c) a sagittal plane.

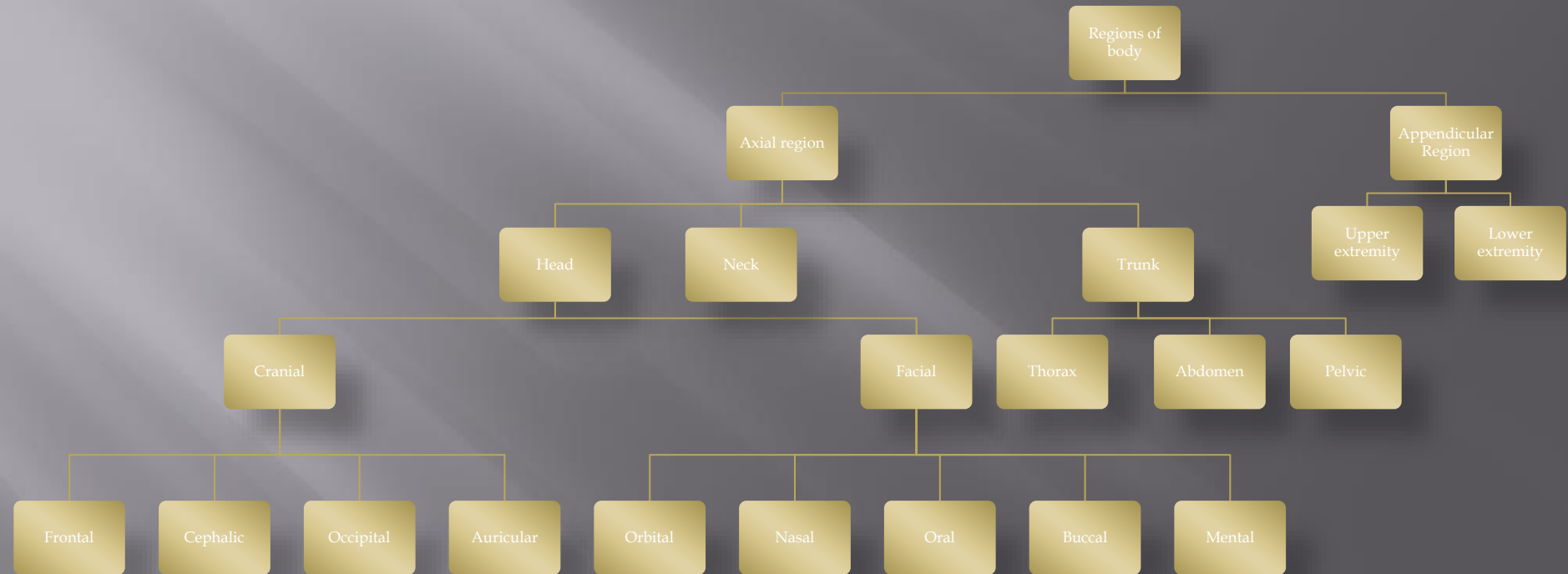
Table 1.2

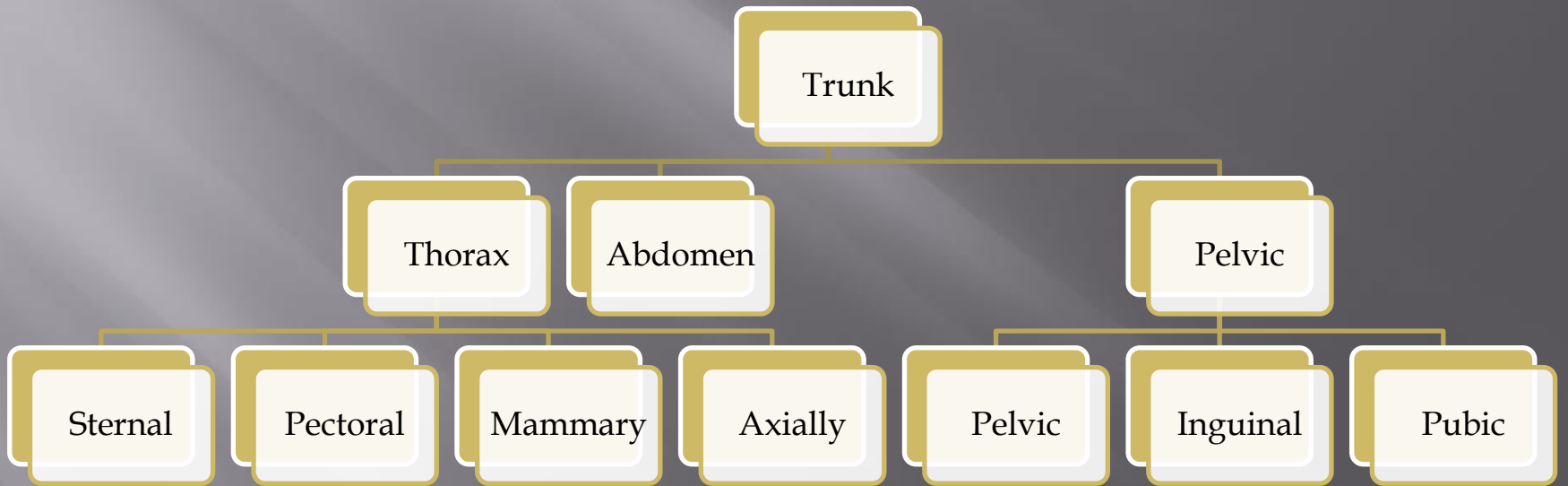
Anatomic Directional Terms

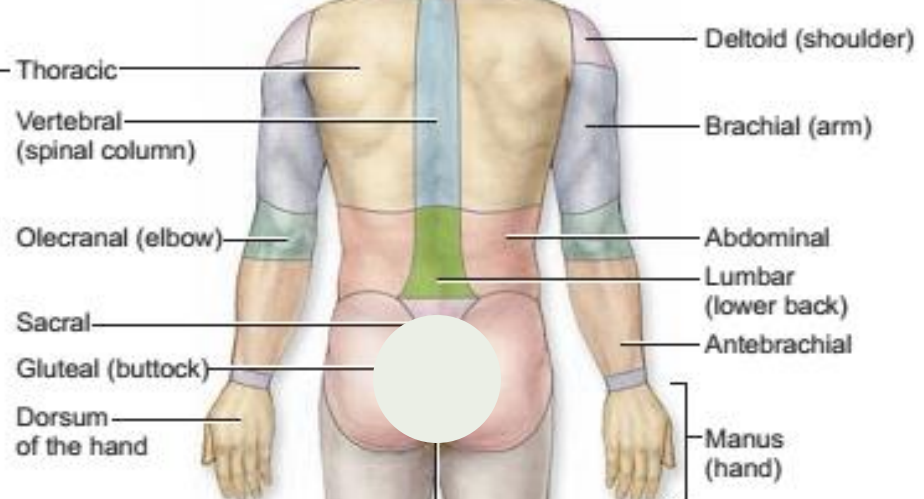
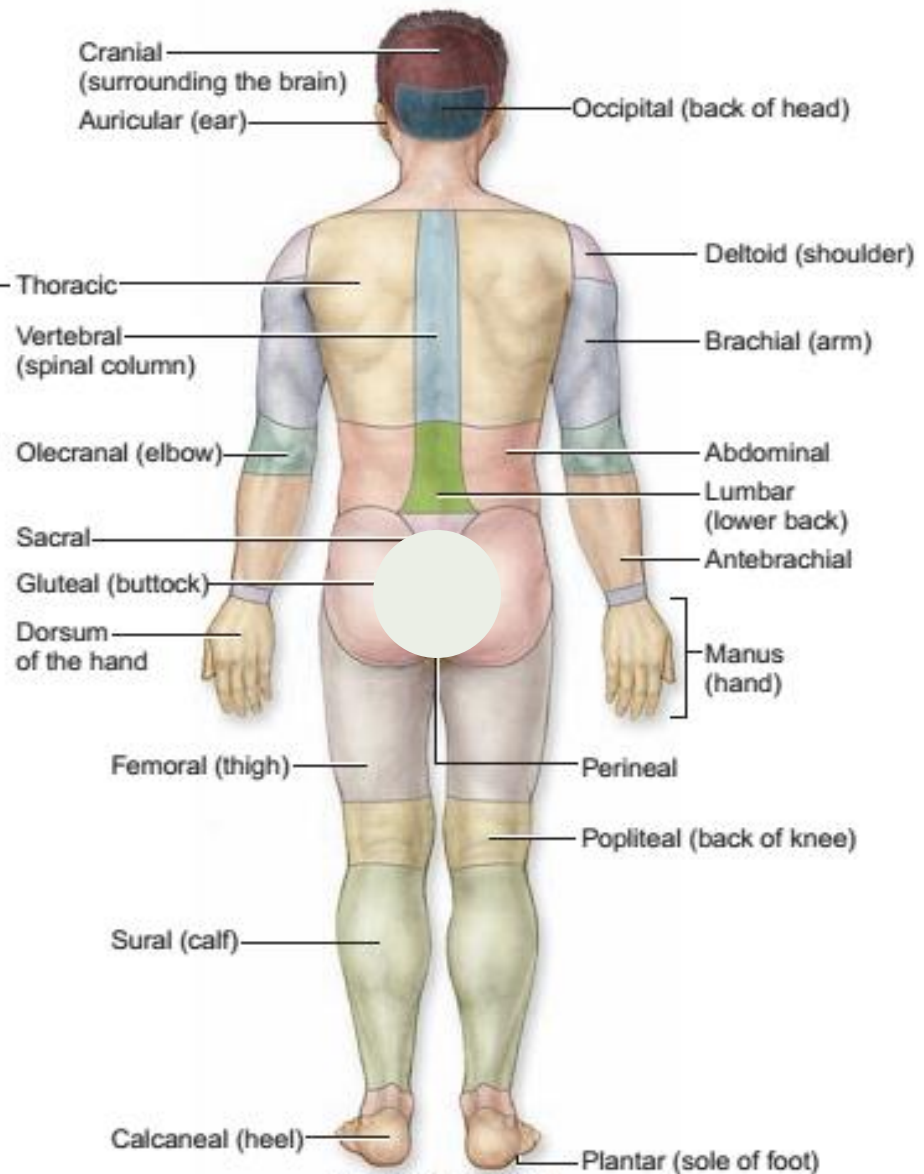
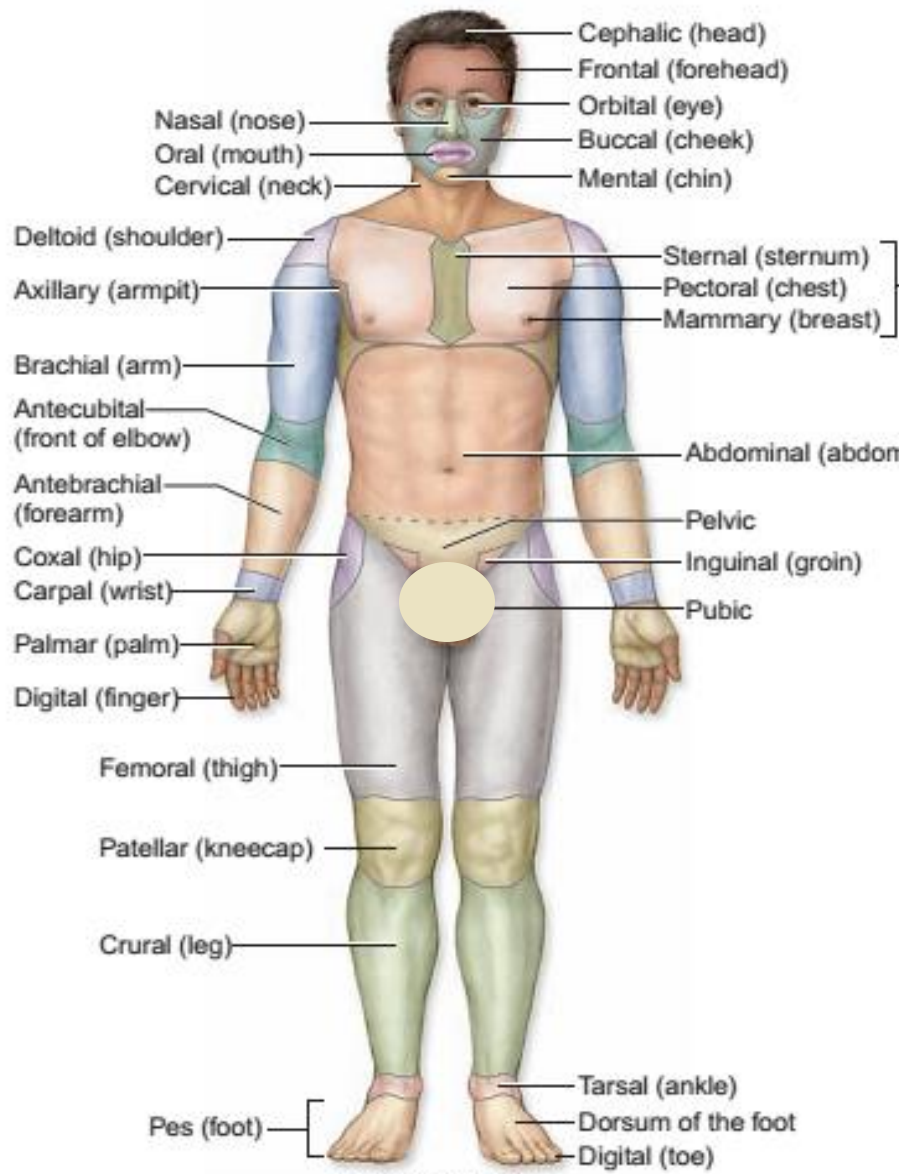
Direction	Term	Meaning	Example
<i>Relative to front (belly side) or back (back side) of the body</i>	Anterior	In front of; toward the front surface	The stomach is <i>anterior</i> to the spinal cord.
	Posterior	In back of; toward the back surface	The heart is <i>posterior</i> to the sternum.
	Dorsal	At the back side of the human body	The spinal cord is on the <i>dorsal</i> side of the body.
	Ventral	At the belly side of the human body	The umbilicus (navel, belly button) is on the <i>ventral</i> side of the body.
<i>Relative to the head or tail of the body</i>	Superior	Closer to the head	The chest is <i>superior</i> to the pelvis.
	Inferior	Closer to the feet	The stomach is <i>inferior</i> to the heart.
	Caudal	At the rear or tail end	The abdomen is <i>caudal</i> to the head.
	Cranial	At the head end	The head is <i>cranial</i> to the trunk.
	Rostral	Toward the nose	The frontal lobe is <i>rostral</i> to the occipital lobe.
<i>Relative to the midline or center of the body</i>	Medial	Toward the midline of the body	The lungs are <i>medial</i> to the shoulders.
	Lateral	Away from the midline of the body	The arms are <i>lateral</i> to the heart.
	Deep	On the inside, underneath another structure	Muscles are <i>deep</i> to the skin.
	Superficial	On the outside	The external edge of the kidney is <i>superficial</i> to its internal structure.
<i>Relative to point of attachment of the appendage</i>	Proximal	Closest to point of attachment to trunk	The elbow is <i>proximal</i> to the hand.
	Distal	Furthest from point of attachment to trunk	The wrist is <i>distal</i> to the elbow.



Regions of the body

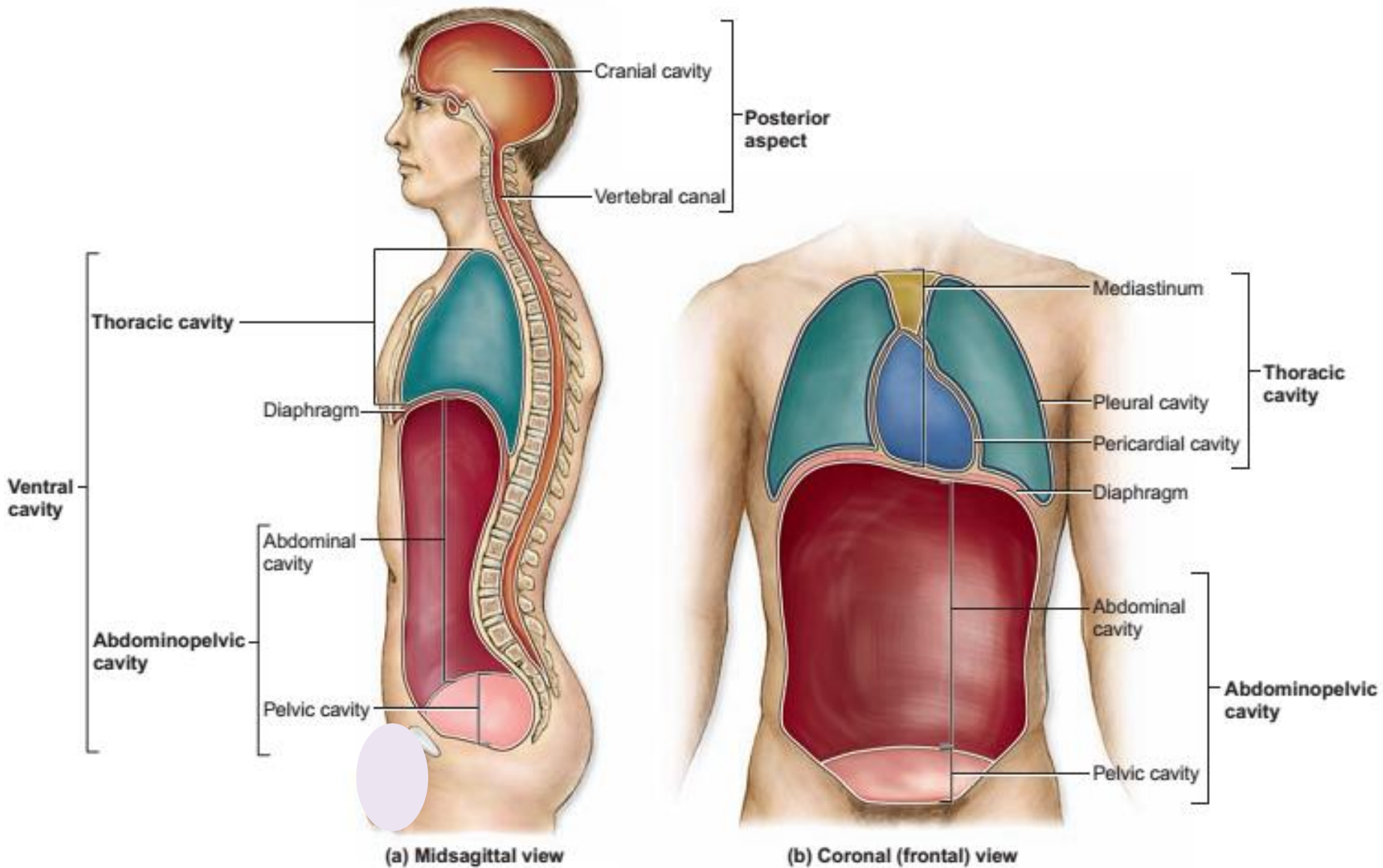






(a) Anterior view

(b) Posterior view



Right hypochondriac region
Epigastric region
Left hypochondriac region

Right lumbar region
Umbilical region
Left lumbar region

Right iliac region
Hypogastric region
Left iliac region

Right upper quadrant (RUQ)
Left upper quadrant (LUQ)

Right lower quadrant (RLQ)
Left lower quadrant (LLQ)

Body cavities
Differentiate during development

Anterior (ventral) cavity (coelom)
Protects visceral organs; permits organ movement during peristalsis; contains lubricating serous fluid

Posterior (dorsal) cavity
Protects the brain and spinal cord; contains buoyant cerebrospinal fluid

Separated into

Subdivided into

Thoracic cavity
Contains and protects heart, lungs, trachea, esophagus, major vessels, and nerves

Abdominopelvic cavity
Contains peritoneal cavity and its contents

Cranial cavity
Maintains consistency of brain while keeping it immobile

Spinal cavity
Maintains consistency of spinal cord while allowing it to be flexible

Separated into

Subdivided into

Right pleural cavity
Surrounds right lung and contains lubricating pleural fluid

Mediastinum
Contains trachea, esophagus, major vessels, and nerves

Left pleural cavity
Surrounds left lung and contains lubricating pleural fluid

Pericardial cavity
Surrounds heart and contains lubricating pericardial fluid

Also contains

Abdominal cavity
Contains abdominal viscera and lubricating peritoneal fluid

Pelvic cavity
Contains some urinary and reproductive organs, terminal portion of digestive tract, and lubricating peritoneal fluid

