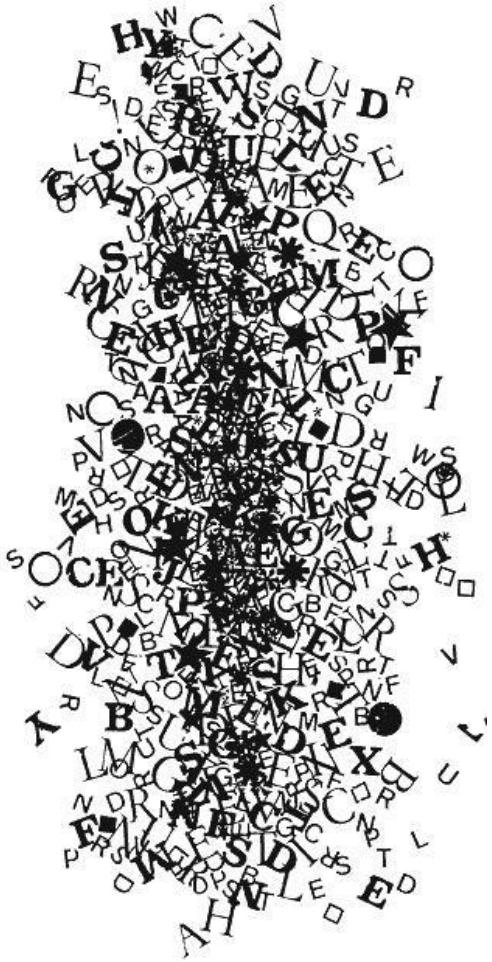
TERMINOLOGIA ANATÓMICA
ORGANIZAÇÃO DOS SISTEMAS CORPORAIS



Visual Poetry, por Ana Hatherly

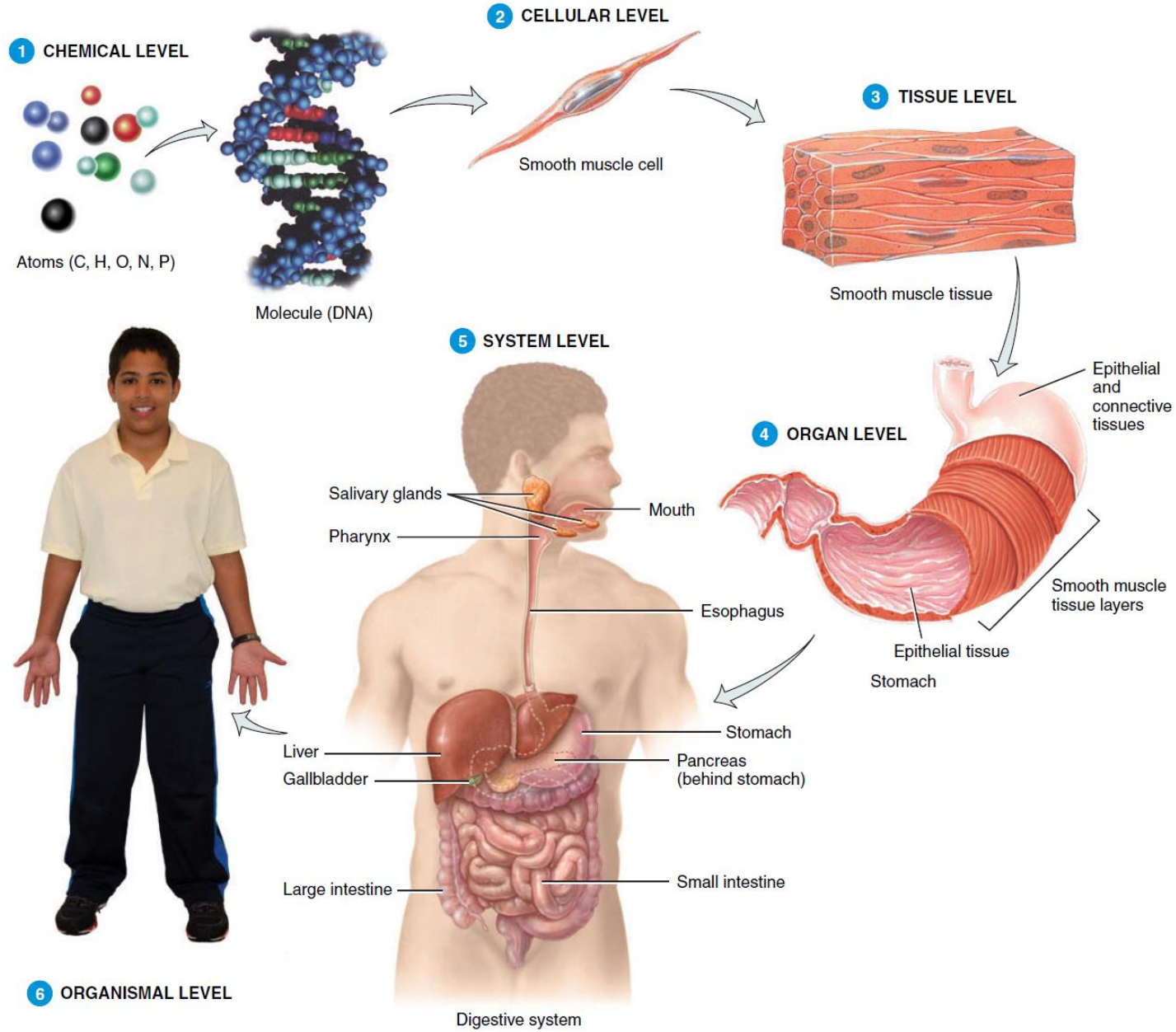
TABLE 1.1

Selected Branches of Anatomy and Physiology

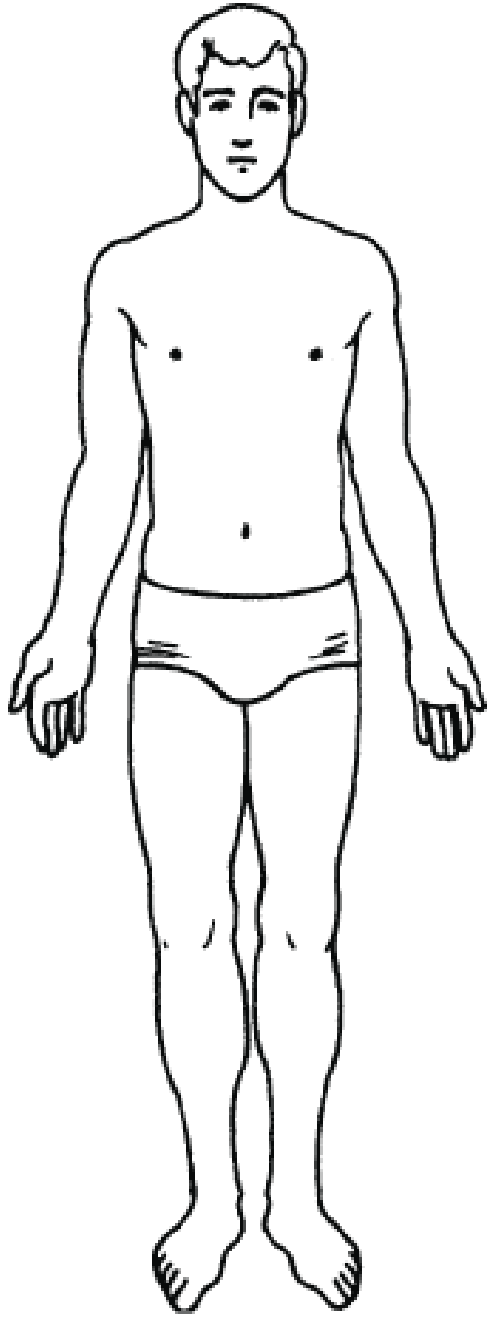
BRANCH OF ANATOMY	STUDY OF	BRANCH OF PHYSIOLOGY	STUDY OF
Embryology (em′-brē-OL-ō-jē; *embry-* = embryo; *-logy* = study of)	The first eight weeks of development after fertilization of a human egg.	**Neurophysiology** (NOOR-ō-fiz-ē-ol′-ō-jē; *neuro-* = nerve)	Functional properties of nerve cells.
Developmental biology	The complete development of an individual from fertilization to death.	**Endocrinology** (en′-dō-kri-NOL-ō-jē; *endo-* = within; *-crin* = secretion)	Hormones (chemical regulators in the blood) and how they control body functions.
Cell biology	Cellular structure and functions.	**Cardiovascular physiology** (kar-dē-ō-VAS-kū-lar; *cardi-* = heart; *vascular* = blood vessels)	Functions of the heart and blood vessels.
Histology (his-TOL-ō -jē; *hist-* = tissue)	Microscopic structure of tissues.	**Immunology** (im′-ū-NOL-ō-jē; *immun-* = not susceptible)	The body's defenses against disease-causing agents.
Gross anatomy	Structures that can be examined without a microscope.	**Respiratory physiology** (RES-pi-ra-tōr-ē; *respira-* = to breathe)	Functions of the air passageways and lungs.
Systemic anatomy	Structure of specific systems of the body such as the nervous or respiratory systems.	**Renal physiology** (RĒ-nal; *ren-* = kidney)	Functions of the kidneys.
Regional anatomy	Specific regions of the body such as the head or chest.	**Exercise physiology**	Changes in cell and organ functions due to muscular activity.
Surface anatomy	Surface markings of the body to understand internal anatomy through visualization and palpation (gentle touch).	**Pathophysiology** (Path-ō-fiz-ē-ol′-ō-jē)	Functional changes associated with disease and aging.
Imaging anatomy	Body structures that can be visualized with techniques such as x-rays, MRI, and CT scans.		
Pathological anatomy (path′-ō-LOJ-i-kal; *path-* = disease)	Structural changes (gross to microscopic) associated with disease.		

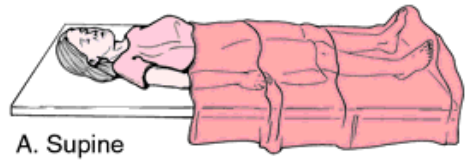
Figure 1.1 **Levels of structural organization in the human body.**

The levels of structural organization are chemical, cellular, tissue, organ, system, and organismal.

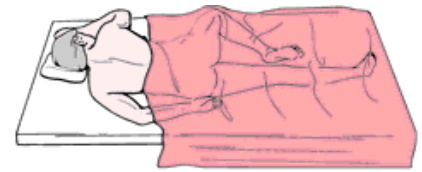


POSIÇÃO ANATÓMICA

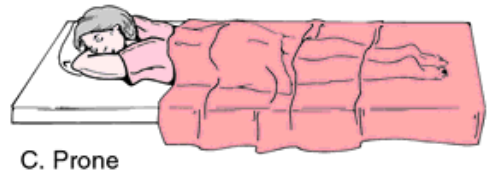




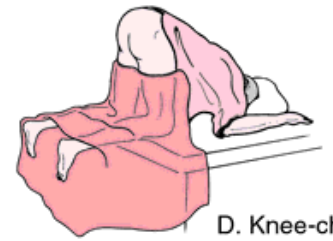
A. Supine



B. Sims' (posterior view)



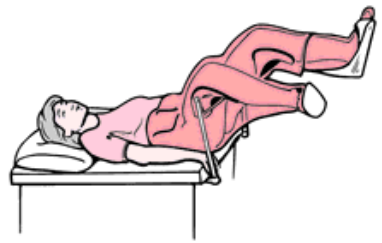
C. Prone



D. Knee-chest

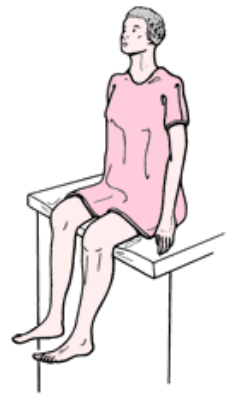
E. Dorsal recumbent

G. Standing



F. Lithotomy

H. Squatting

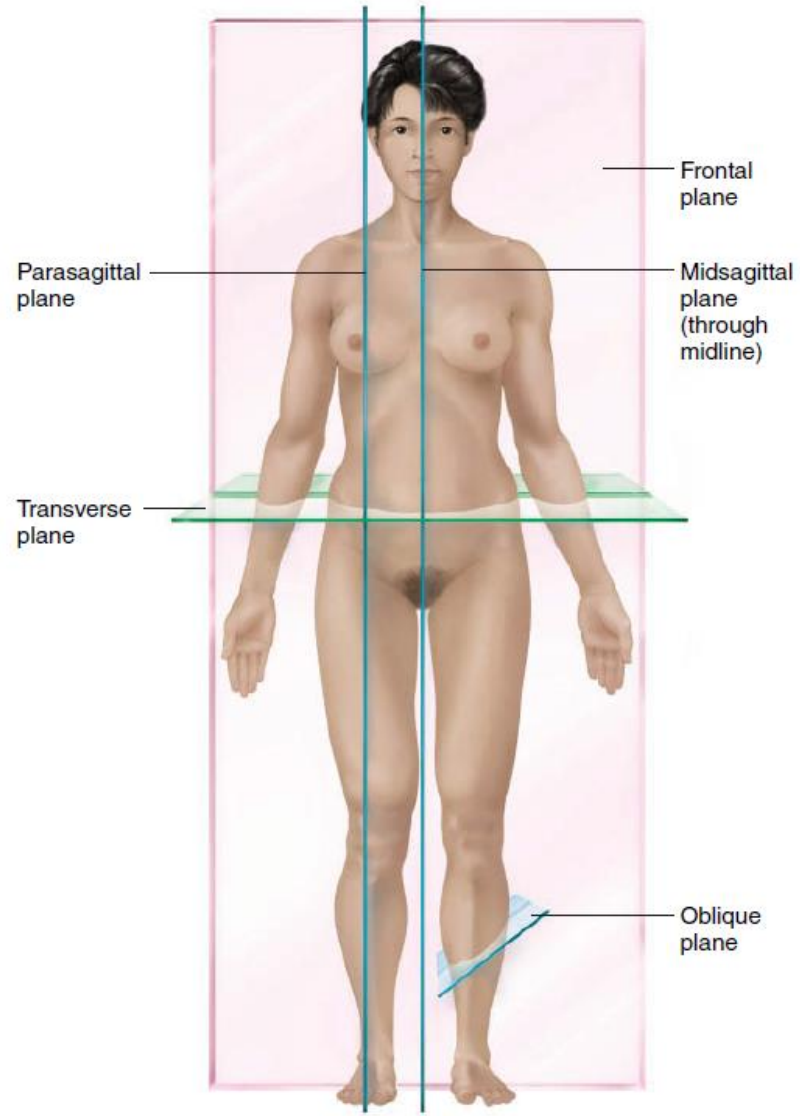


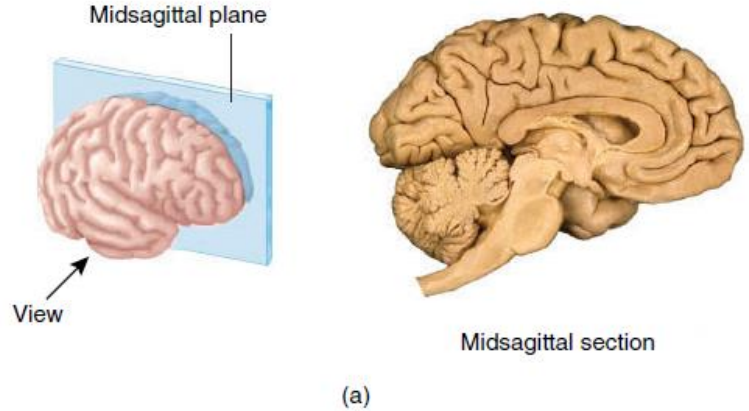
I. Sitting

PLANOS ANATÓMICOS

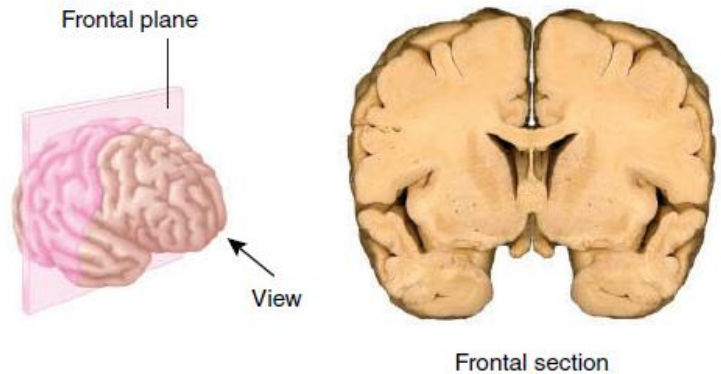
Figure 1.7 Planes through the human body.

Frontal, transverse, sagittal, and oblique planes divide the body in specific ways.

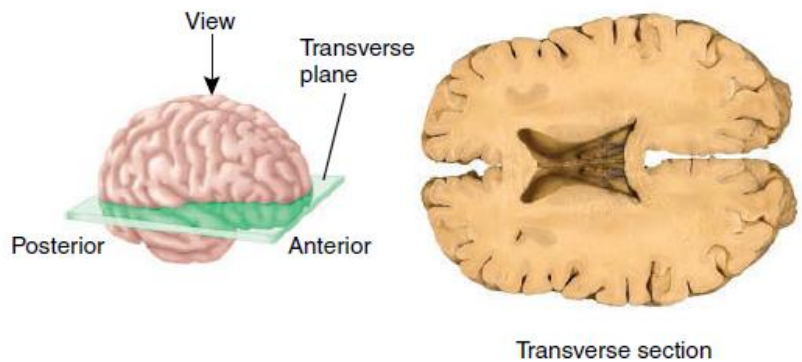




(a)



(b)



(c)

For descriptive purposes the body is supposed to be in the erect posture, with the arms hanging by the sides and the palms of the hands directed forward. The *median plane* is a vertical antero-posterior plane, passing through the center of the trunk. This plane will pass approximately through the sagittal suture of the skull, and hence any plane parallel to it is termed a *sagittal plane*. A vertical plane at right angles to the median plane passes, roughly speaking, through the central part of the coronal suture or through a line parallel to it; such a plane is known as a *frontal plane* or sometimes as a *coronal plane*. A plane at right angles to both the median and frontal planes is termed a *transverse plane*.

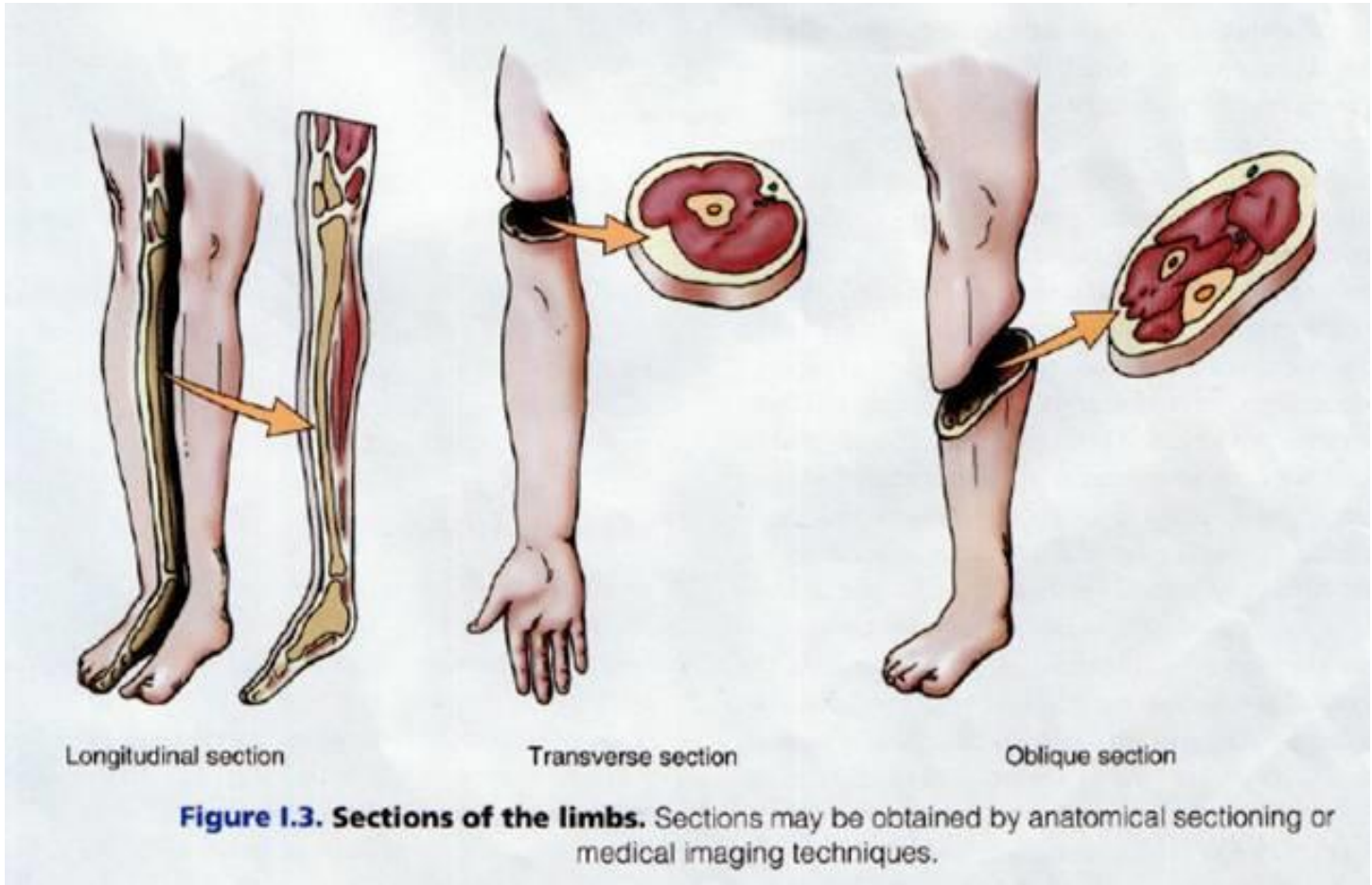


Figure I.3. Sections of the limbs. Sections may be obtained by anatomical sectioning or medical imaging techniques.

TERMOS DE COMPARAÇÃO/DESCRIÇÃO

DIRECTIONAL TERM	DEFINITION	EXAMPLE OF USE
Superior (soo′-PĒR-ē-or) (**cephalic** or **cranial**)	Toward the head, or the upper part of a structure.	The heart is superior to the liver.
Inferior (in-FĒ-rē-or) (**caudal**)	Away from the head, or the lower part of a structure.	The stomach is inferior to the lungs.
Anterior (an-TĒR-ē-or) (**ventral**)*	Nearer to or at the front of the body.	The sternum (breastbone) is anterior to the heart.
Posterior (pos-TĒR-ē-or) (**dorsal**)	Nearer to or at the back of the body.	The esophagus (food tube) is posterior to the trachea (windpipe).
Medial (MĒ-dē-al)	Nearer to the midline (an imaginary vertical line that divides the body into equal right and left sides).	The ulna is medial to the radius.
Lateral (LAT-er-al)	Farther from the midline.	The lungs are lateral to the heart.
Intermediate (in′-ter-MĒ-dē-at)	Between two structures.	The transverse colon is intermediate to the ascending and descending colons.
Ipsilateral (ip-si-LAT-er-al)	On the same side of the body as another structure.	The gallbladder and ascending colon are ipsilateral.
Contralateral (KON-tra-lat-er-al)	On the opposite side of the body from another structure.	The ascending and descending colons are contralateral.
Proximal (PROK-si-mal)	Nearer to the attachment of a limb to the trunk; nearer to the origination of a structure.	The humerus (arm bone) is proximal to the radius.
Distal (DIS-tal)	Farther from the attachment of a limb to the trunk; farther from the origination of a structure.	The phalanges (finger bones) are distal to the carpals (wrist bones).
Superficial (soo′-per-FISH-al) (**external**)	Toward or on the surface of the body.	The ribs are superficial to the lungs.
Deep (Internal)	Away from the surface of the body.	The ribs are deep to the skin of the chest and back.

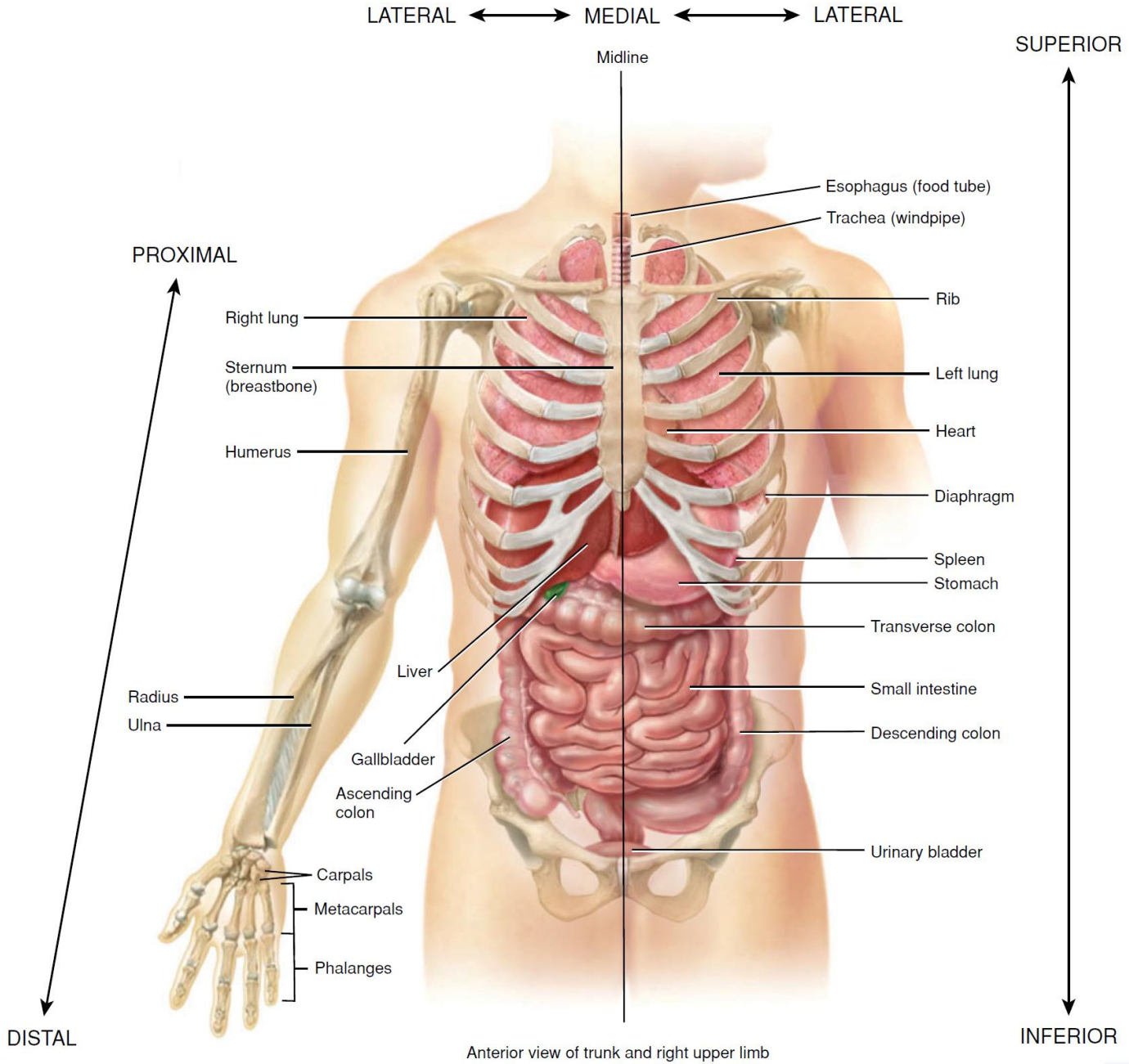
*Note that the terms *anterior* and *ventral* mean the same thing in humans. However, in four-legged animals *ventral* refers to the belly side and is therefore *inferior.* Similarly, the terms *posterior* and *dorsal* mean the same thing in humans, but in four-legged animals *dorsal* refers to the back side and is therefore *superior.*

The terms *anterior* or *ventral,* and *posterior* or *dorsal,* are employed to indicate the relation of parts to the front or back of the body or limbs, and the terms *superior* or *cephalic,* and *inferior* or *caudal,* to indicate the relative levels of different structures; structures nearer to or farther from the median plane are referred to as *medial* or *lateral* respectively.

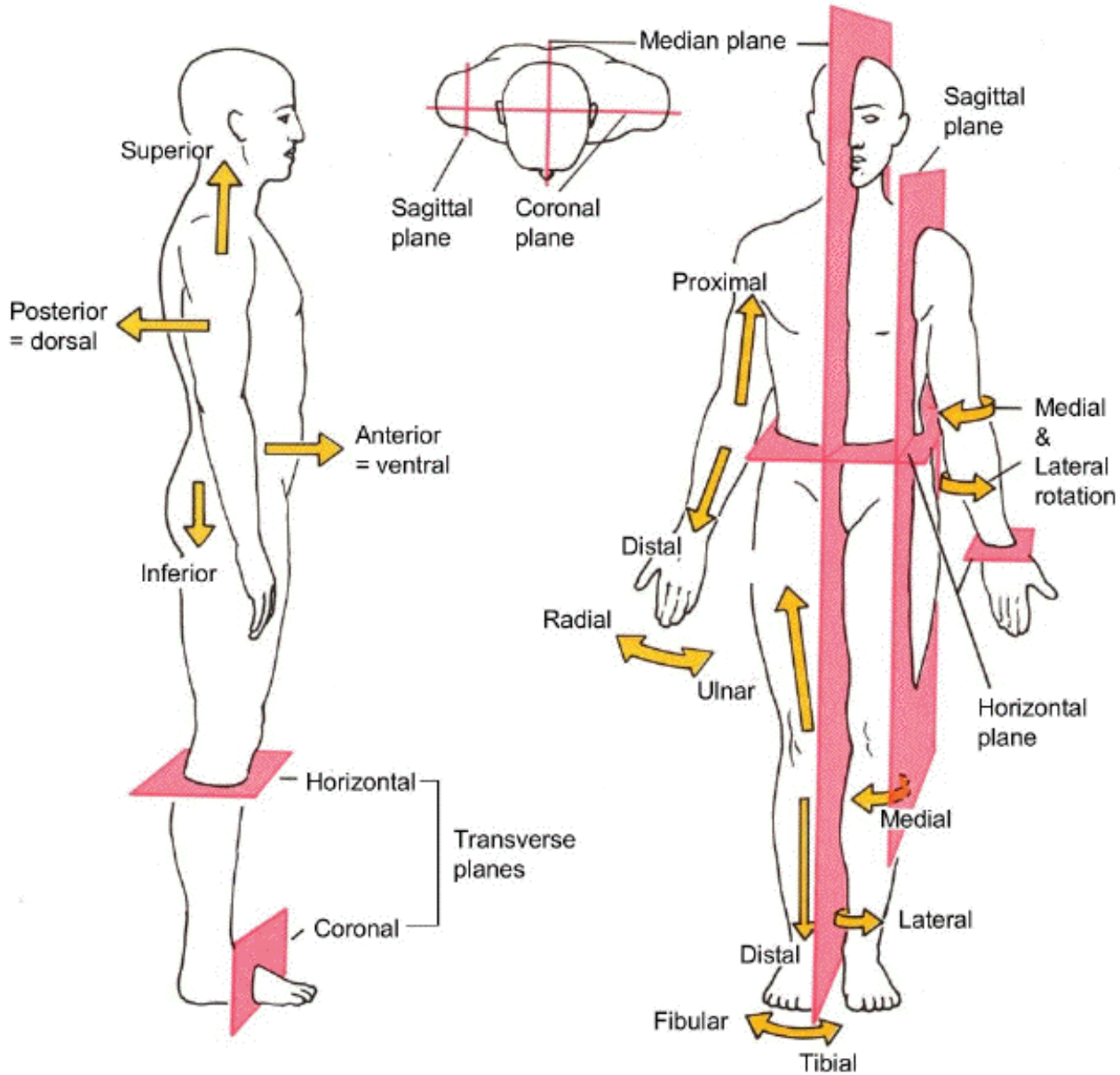
The terms *superficial* and *deep* are strictly confined to descriptions of the relative depth from the surface of the various structures; *external* and *internal* are reserved almost entirely for describing the walls of cavities or of hollow viscera. In the case of the limbs the words *proximal* and *distal* refer to the relative distance from the attached end of the limb.

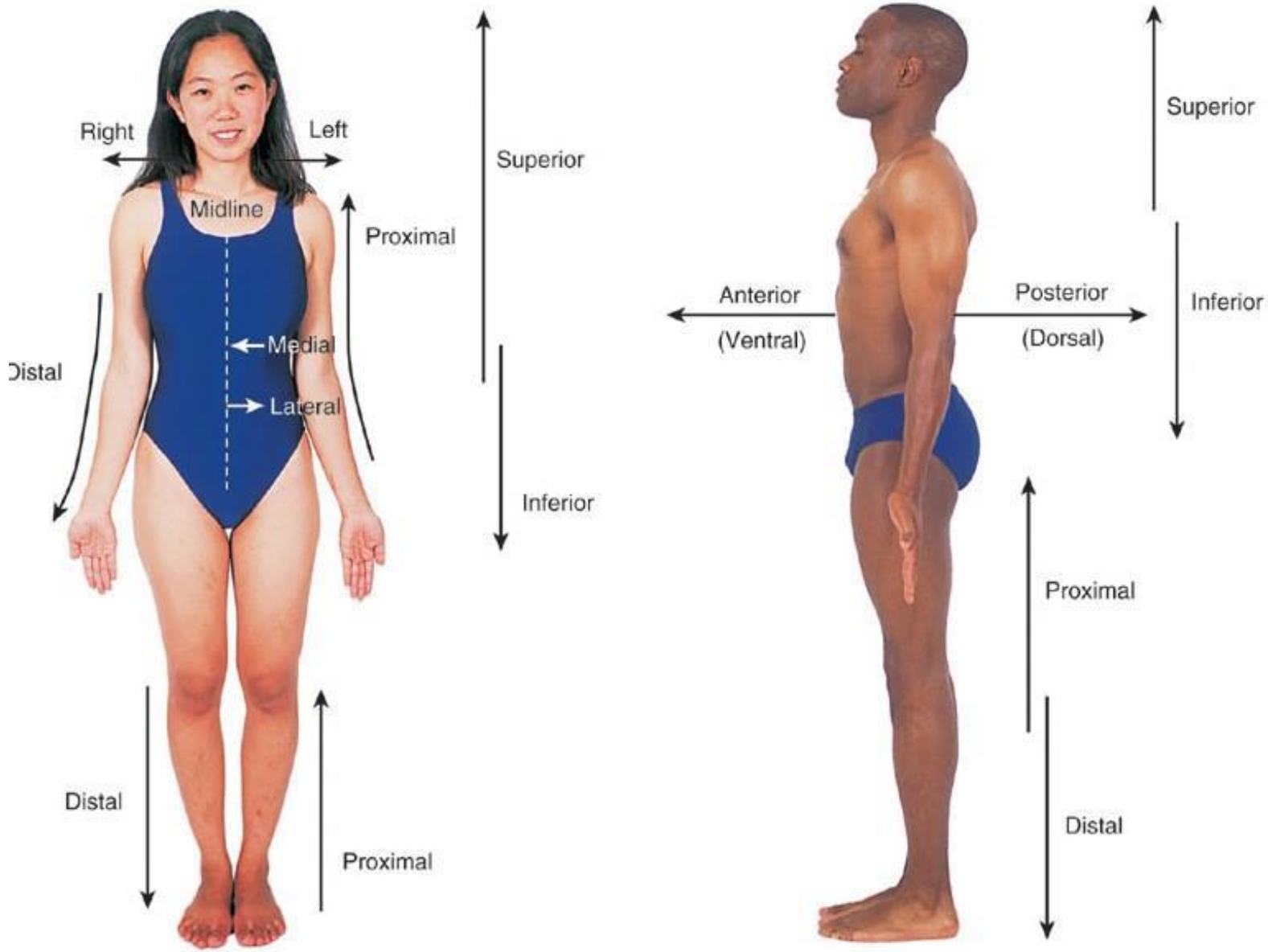
Terms of Relative Position (based on anatomical position):

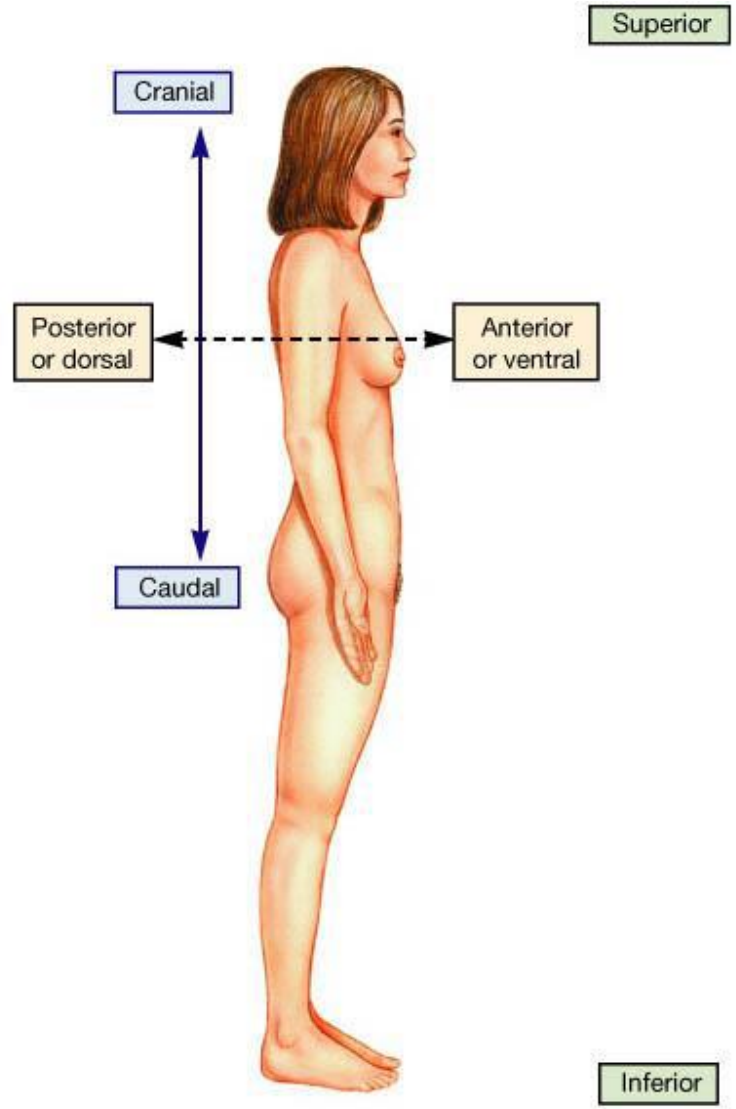
- Superior versus Inferior (Cranial vs. Caudal)
- Anterior versus Posterior (Ventral vs. Dorsal)
- Medial versus Lateral
- Ipsi-lateral versus Contra-lateral
- Proximal versus Distal
- Superficial versus Deep
- Internal versus External



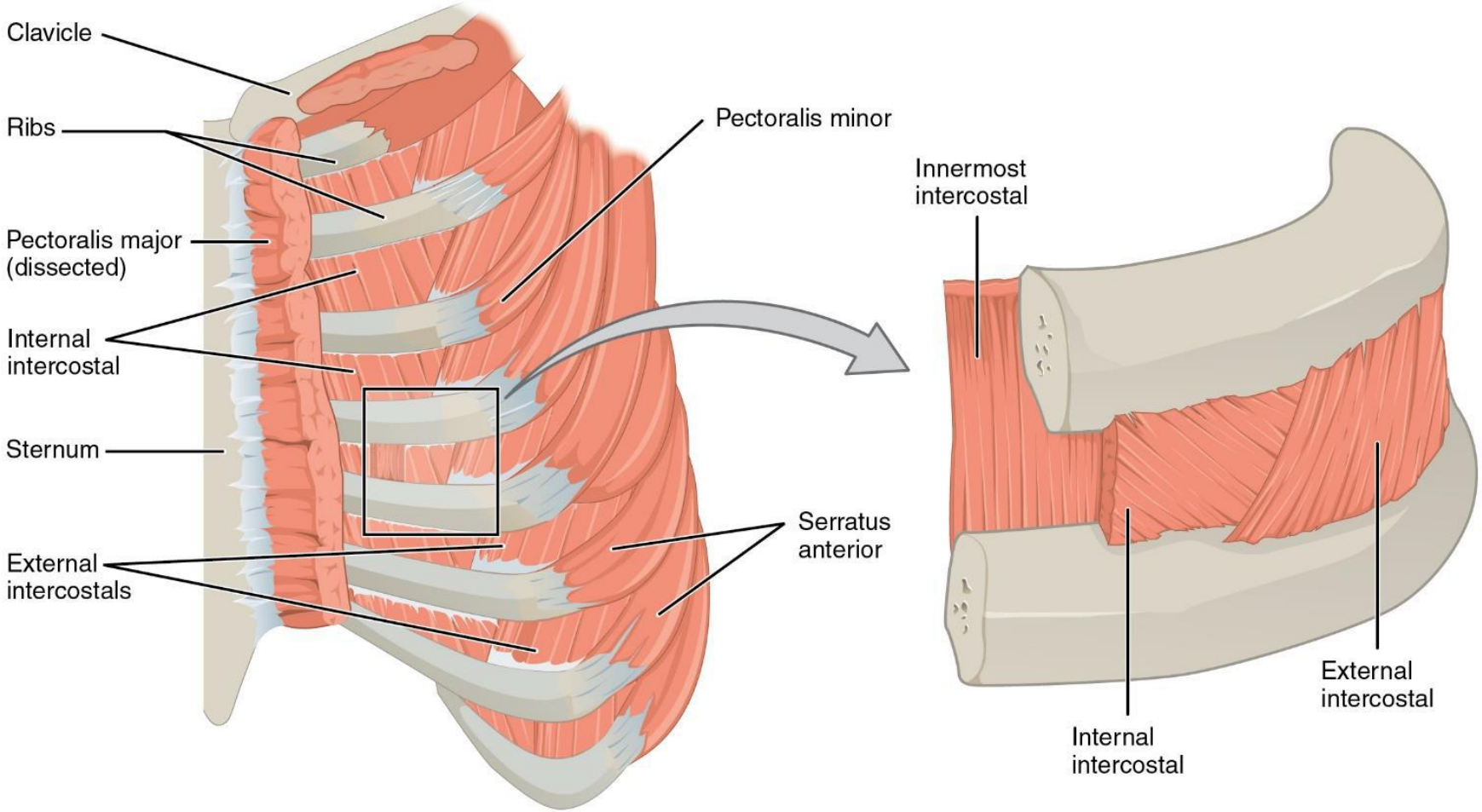
Anterior view of trunk and right upper limb

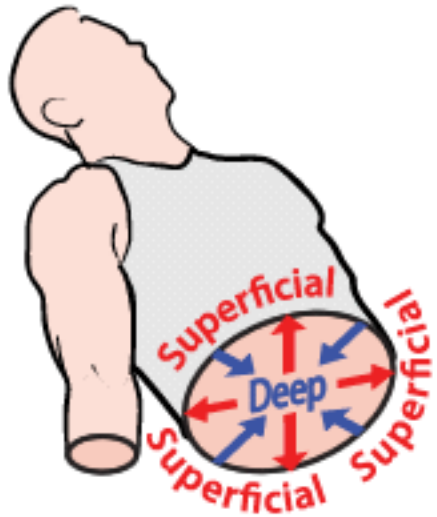

Superior
Posterior
= dorsal
Anterior
= ventral
Inferior
Horizontal
Transverse
planes
Coronal
Median plane
Sagittal
plane
Coronal
plane
Sagittal
plane
Proximal
Medial
&
Lateral
rotation
Distal
Radial
Ulnar
Horizontal
plane
Medial
Lateral
Distal
Fibular
Tibial


Right
Left
Midline
Proximal
Superior
Distal
Medial
Lateral
Inferior
Distal
Proximal
Superior
Anterior
(Ventral)
Posterior
(Dorsal)
Inferior
Proximal
Distal


Superior
Cranial
Posterior
or dorsal
Anterior
or ventral
Caudal
Inferior

(a)


Clavicle
Ribs
Pectoralis major (dissected)
Internal intercostal
Sternum
External intercostals
Pectoralis minor
Serratus anterior
Innermost intercostal
Internal intercostal
External intercostal

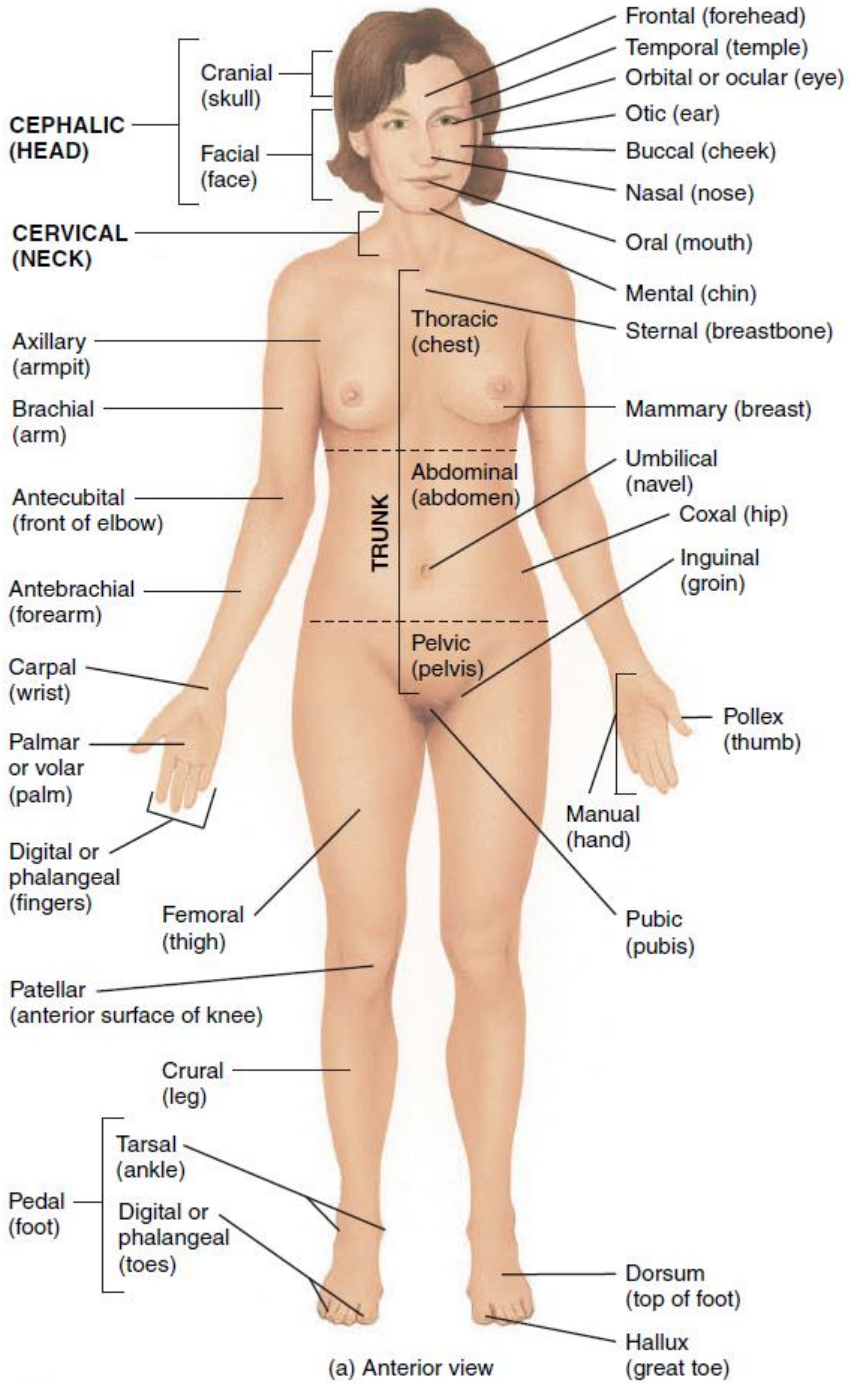

Superficial
Deep
Superficial
Superficial

Anatomia generalis

General anatomy

	Nomina generalia	*General terms*
A01.0.00.001	Verticalis	Vertical
A01.0.00.002	Horizontalis	Horizontal
A01.0.00.003	Medianus	Median
A01.0.00.004	Coronalis	Coronal
A01.0.00.005	Sagittalis	Sagittal
A01.0.00.006	Dexter	Right
A01.0.00.007	Sinister	Left
A01.0.00.008	Intermedius	Intermediate
A01.0.00.009	Medialis	Medial
A01.0.00.010	Lateralis	Lateral
A01.0.00.011	Anterior	Anterior
A01.0.00.012	Posterior	Posterior
A01.0.00.013	Ventralis	Ventral
A01.0.00.014	Dorsalis	Dorsal
A01.0.00.015	Frontalis	Frontal
A01.0.00.016	Occipitalis	Occipital
A01.0.00.017	Superior	Superior
A01.0.00.018	Inferior	Inferior
A01.0.00.019	Cranialis	Cranial
A01.0.00.020	Caudalis	Caudal
A01.0.00.021	Rostralis	Rostral
A01.0.00.022	Apicalis	Apical
A01.0.00.023	Basalis	Basal
A01.0.00.024	Basilaris	Basilar
A01.0.00.025	Medius	Middle
A01.0.00.026	Transversus	Transverse
A01.0.00.027	Transversalis	Transverse
A01.0.00.028	Longitudinalis	Longitudinal
A01.0.00.029	Axialis	Axial
A01.0.00.030	Externus	External
A01.0.00.031	Internus	Internal
A01.0.00.032	Luminalis	Luminal
A01.0.00.033	Superficialis	Superficial
A01.0.00.034	Profundus	Deep
A01.0.00.035	Proximalis	Proximal
A01.0.00.036	Distalis	Distal
A01.0.00.037	Centralis	Central
A01.0.00.038	Peripheric us; Peripheralis	Peripheral
A01.0.00.039	Radialis	Radial
A01.0.00.040	Ulnaris	Ulnar
A01.0.00.041	Fibularis; Peronealis	Fibular; Peroneal
A01.0.00.042	Tibialis	Tibial
A01.0.00.043	Palmaris; Volaris	Palmar; Volar
A01.0.00.044	Plantaris	Plantar
A01.0.00.045	Flexor	Flexor
A01.0.00.046	Extensor	Extensor

REGIÕES CORPO



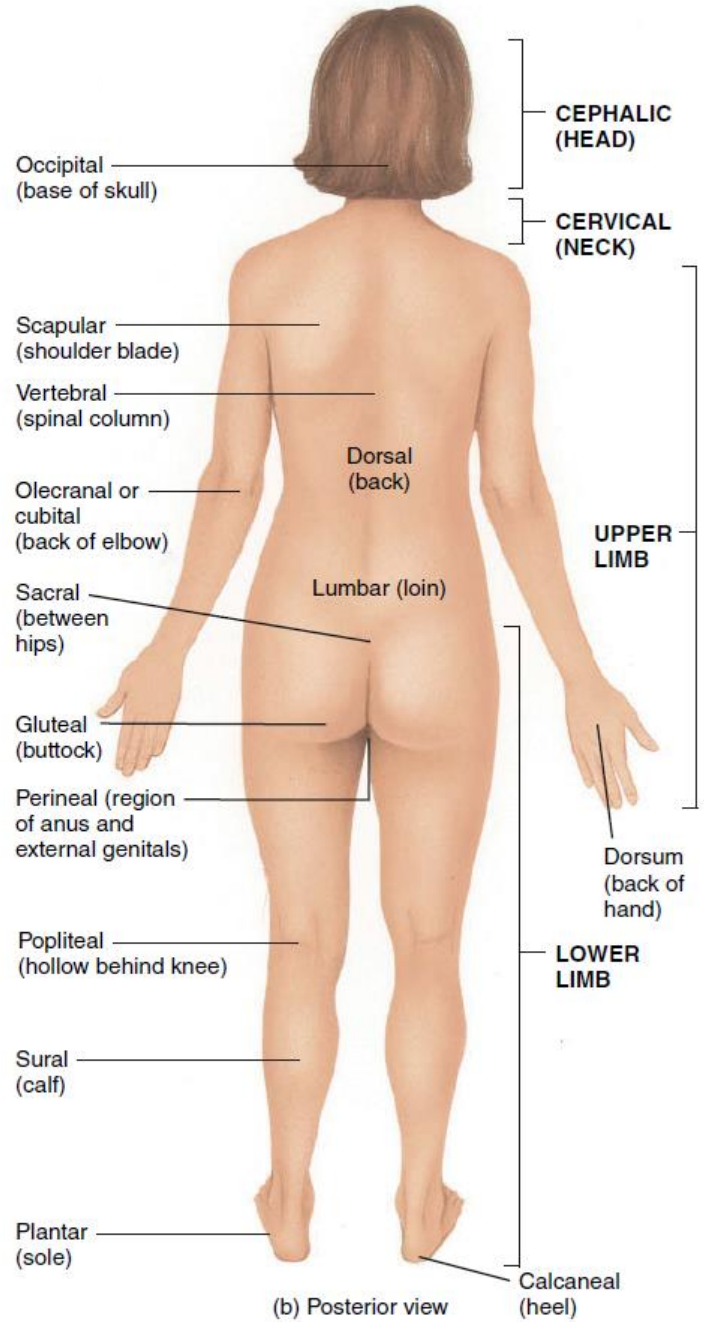
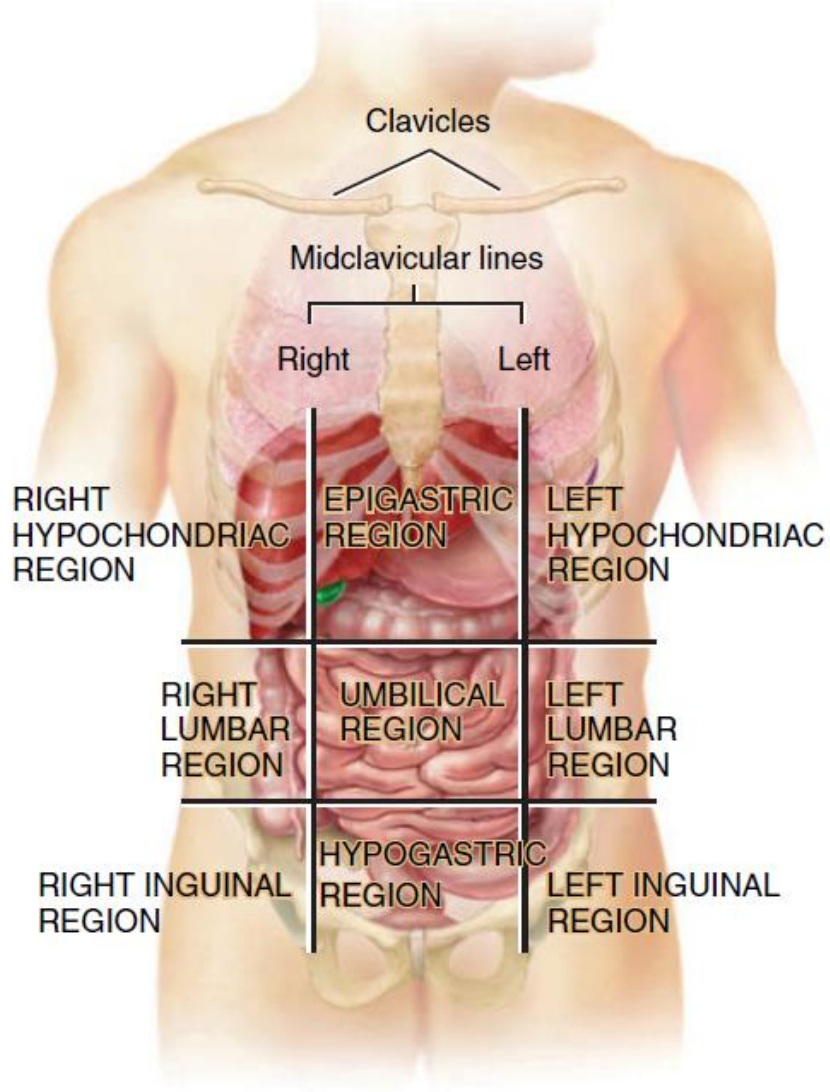
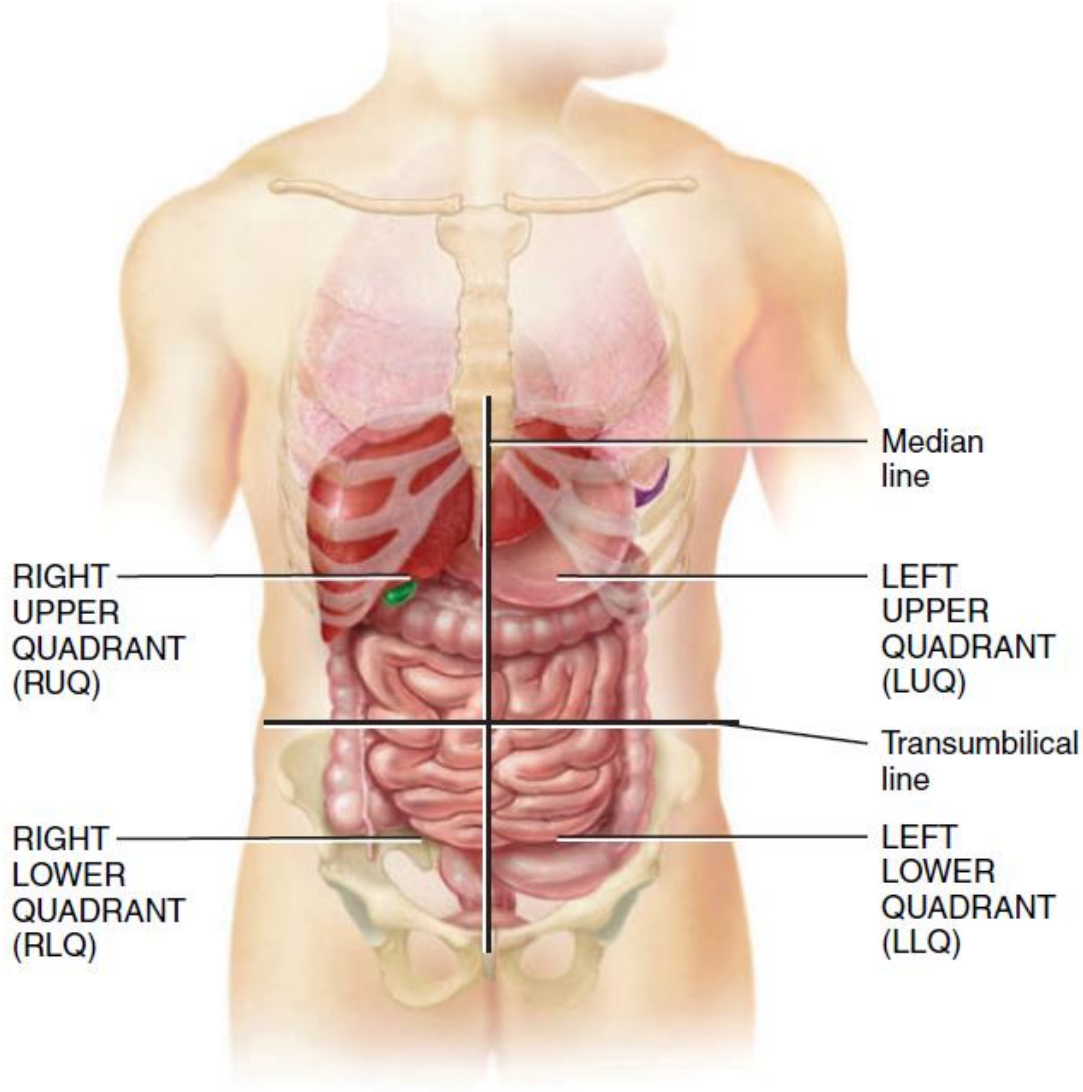


Figure 1.12 Regions and quadrants of the abdominopelvic cavity.

The nine-region designation is used for anatomical studies; the quadrant designation is used to locate the site of pain, tumors, or some other abnormality.



(a) Anterior view showing location of abdominopelvic regions



(b) Anterior view showing location of abdominopelvic quadrants

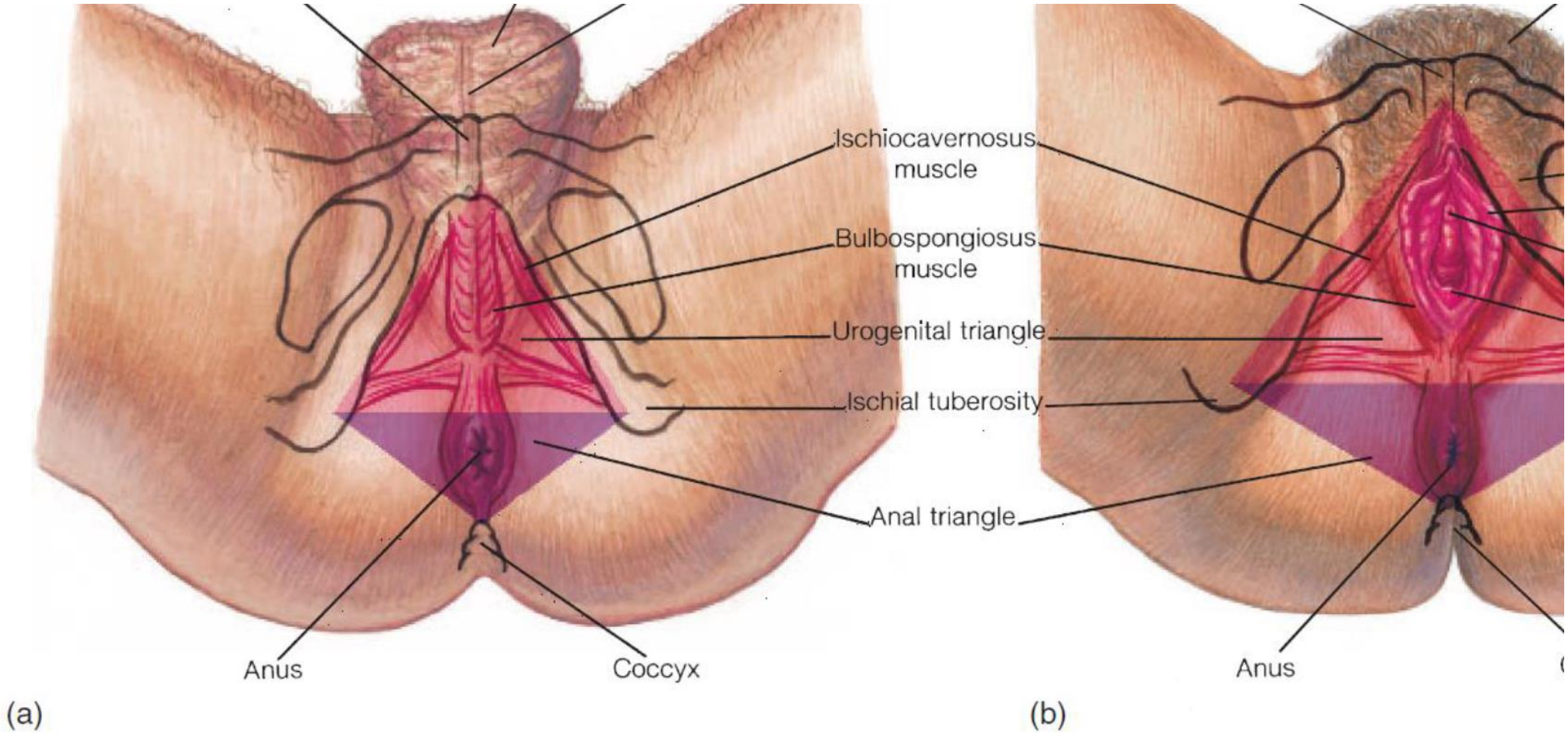
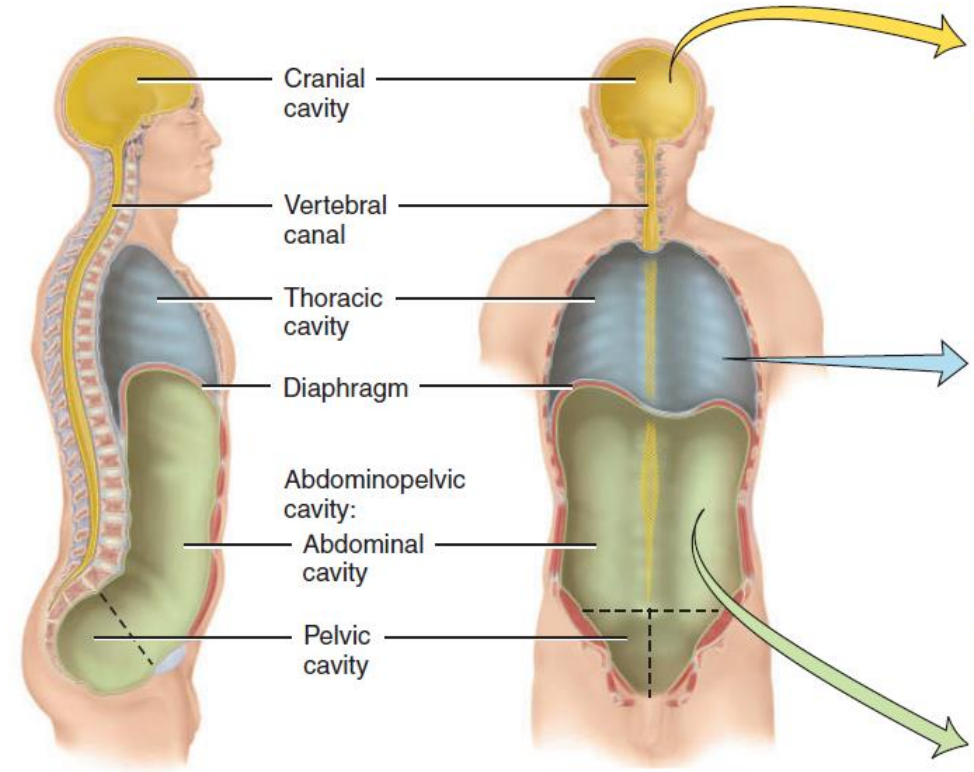


FIGURE 2.17 A superficial view of the perineum of (*a*) a male and (*b*) a female. The perineal region can be divided

CAVIDADES

Figure 1.9 **Body cavities.** The black dashed line in (a) indicates the border between the abdominal and pelvic cavities.

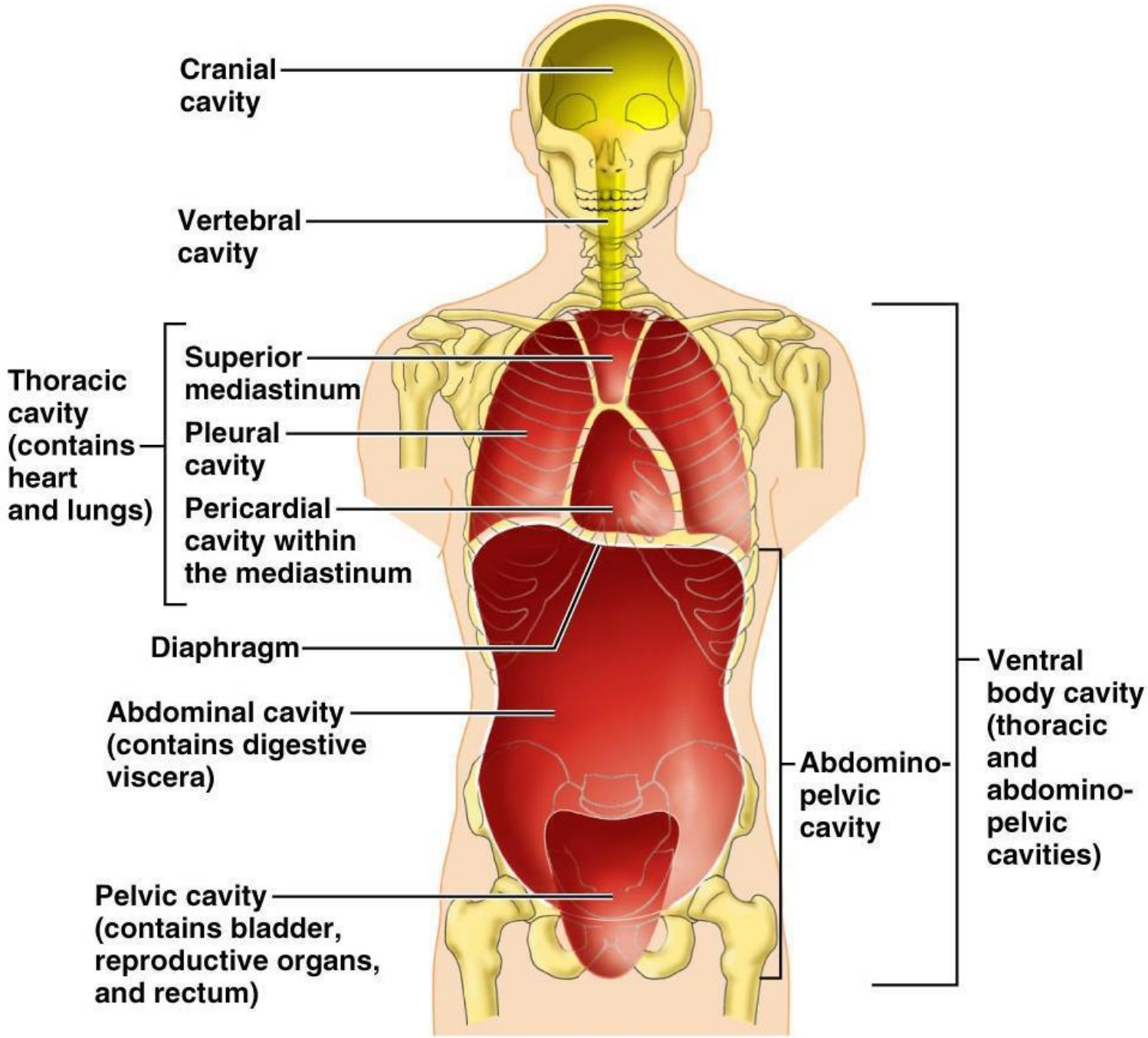
The major cavities of the trunk are the thoracic and abdominopelvic cavities.



(a) Right lateral view (b) Anterior view

CAVITY	COMMENTS
Cranial cavity	Formed by cranial bones and contains brain.
Vertebral canal	Formed by vertebral column and contains spinal cord and the beginnings of spinal nerves.
Thoracic cavity*	Chest cavity; contains pleural and pericardial cavities and the mediastinum.
Pleural cavity	A potential space between the layers of the pleura that surrounds a lung.
Pericardial cavity	A potential space between the layers of the pericardium that surrounds the heart.
Mediastinum	Central portion of thoracic cavity between the lungs; extends from sternum to vertebral column and from first rib to diaphragm; contains heart, thymus, esophagus, trachea, and several large blood vessels.
Abdominopelvic cavity	Subdivided into abdominal and pelvic cavities.
Abdominal cavity	Contains stomach, spleen, liver, gallbladder, small intestine, and most of large intestine; the serous membrane of the abdominal cavity is the peritoneum.
Pelvic cavity	Contains urinary bladder, portions of large intestine, and internal organs of reproduction.

* See Figure 1.10 for details of the thoracic cavity.



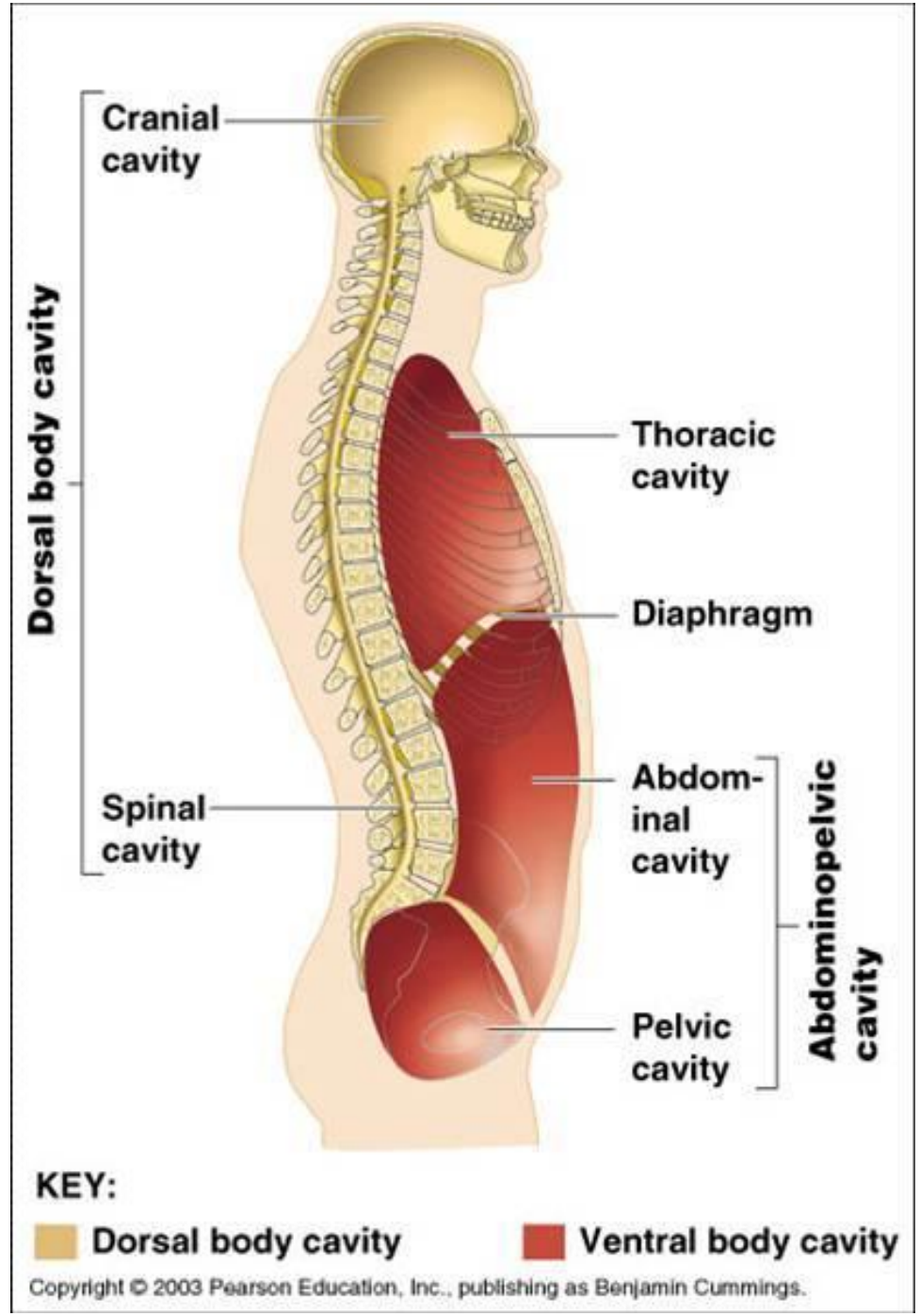
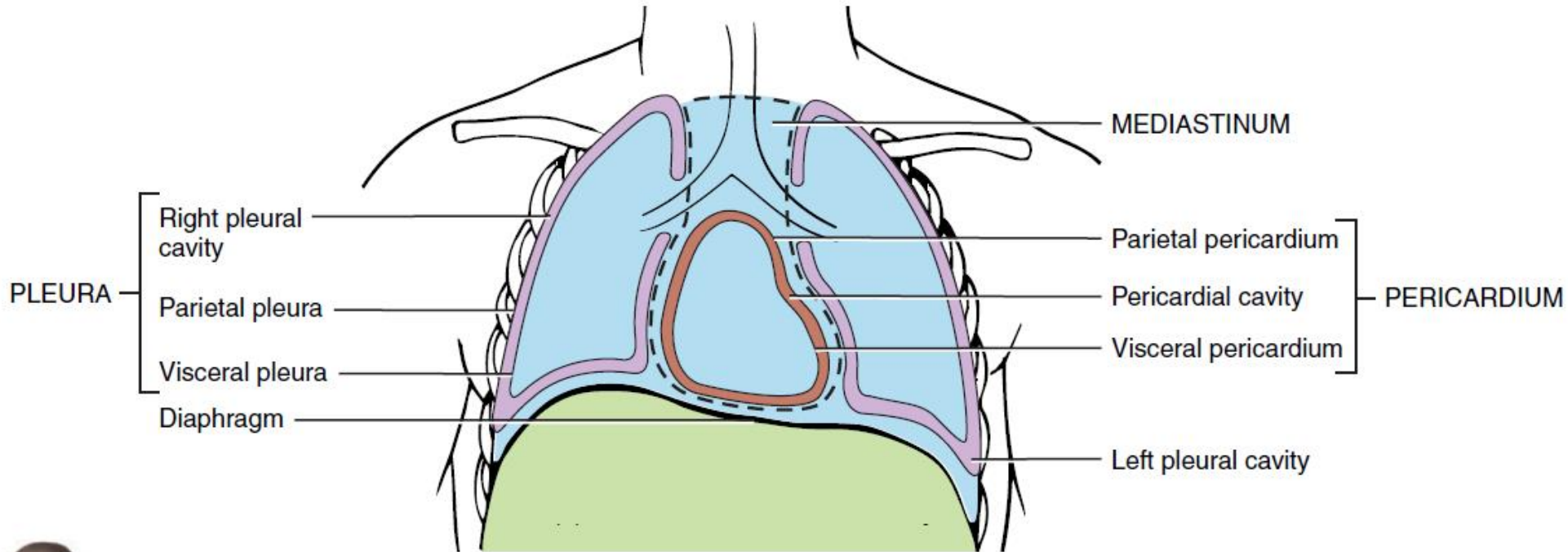
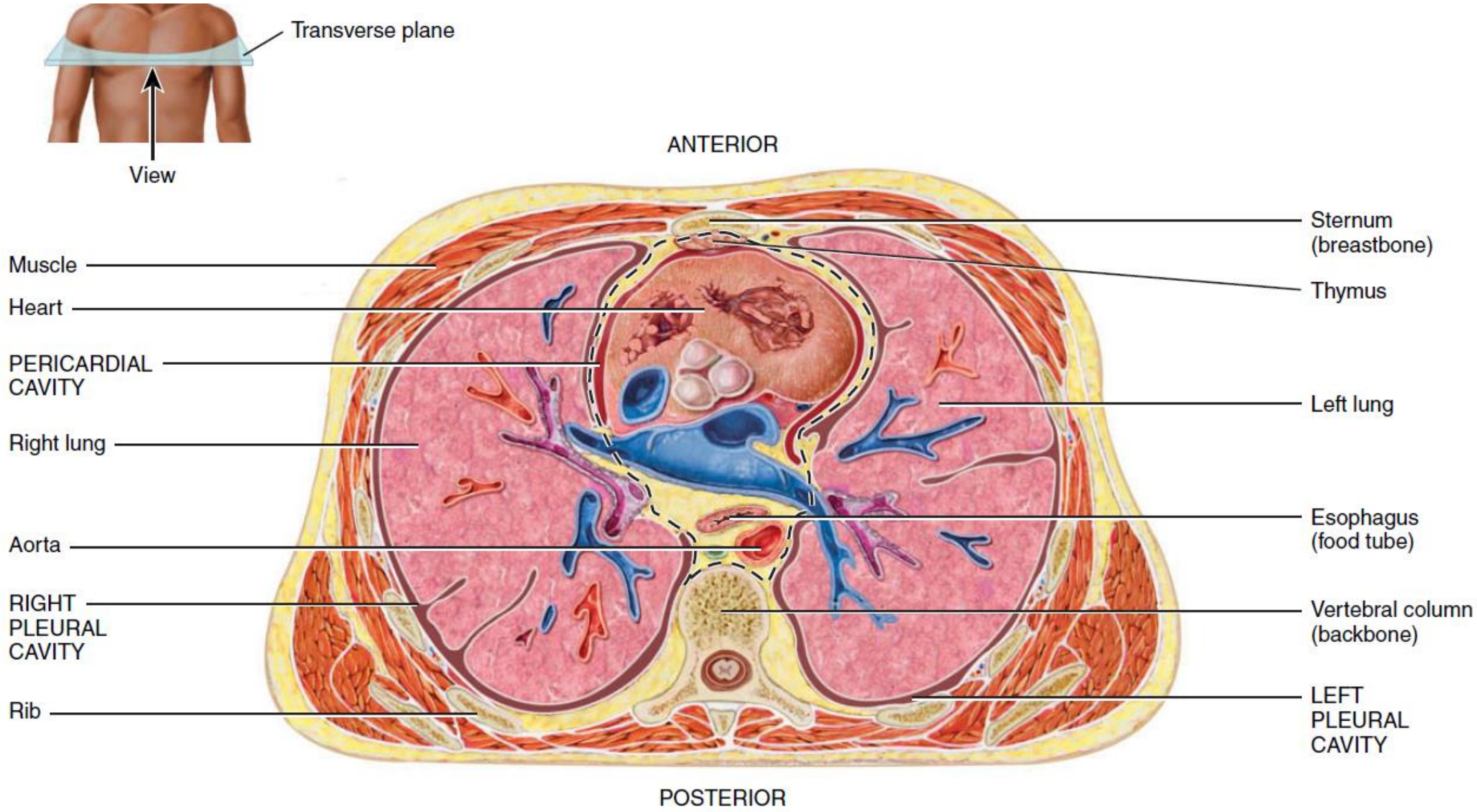


Figure 1.10 **The thoracic cavity.** The black dashed lines indicate the borders of the mediastinum. Note: When transverse sections are viewed inferiorly (from below), the anterior aspect of the body appears on top and the left side of the body appears on the right side of the illustration.

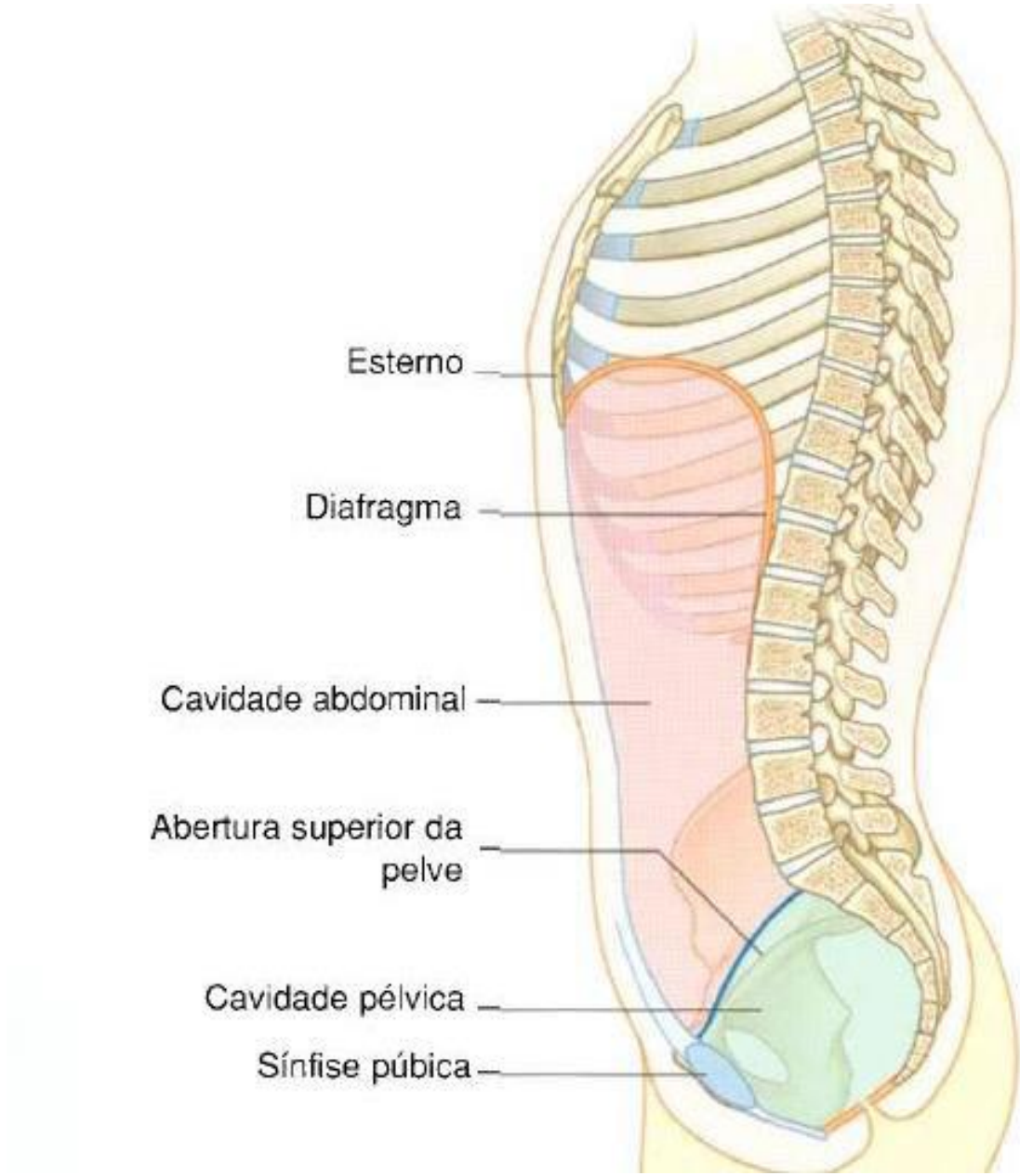
The thoracic cavity contains three smaller cavities and the mediastinum.



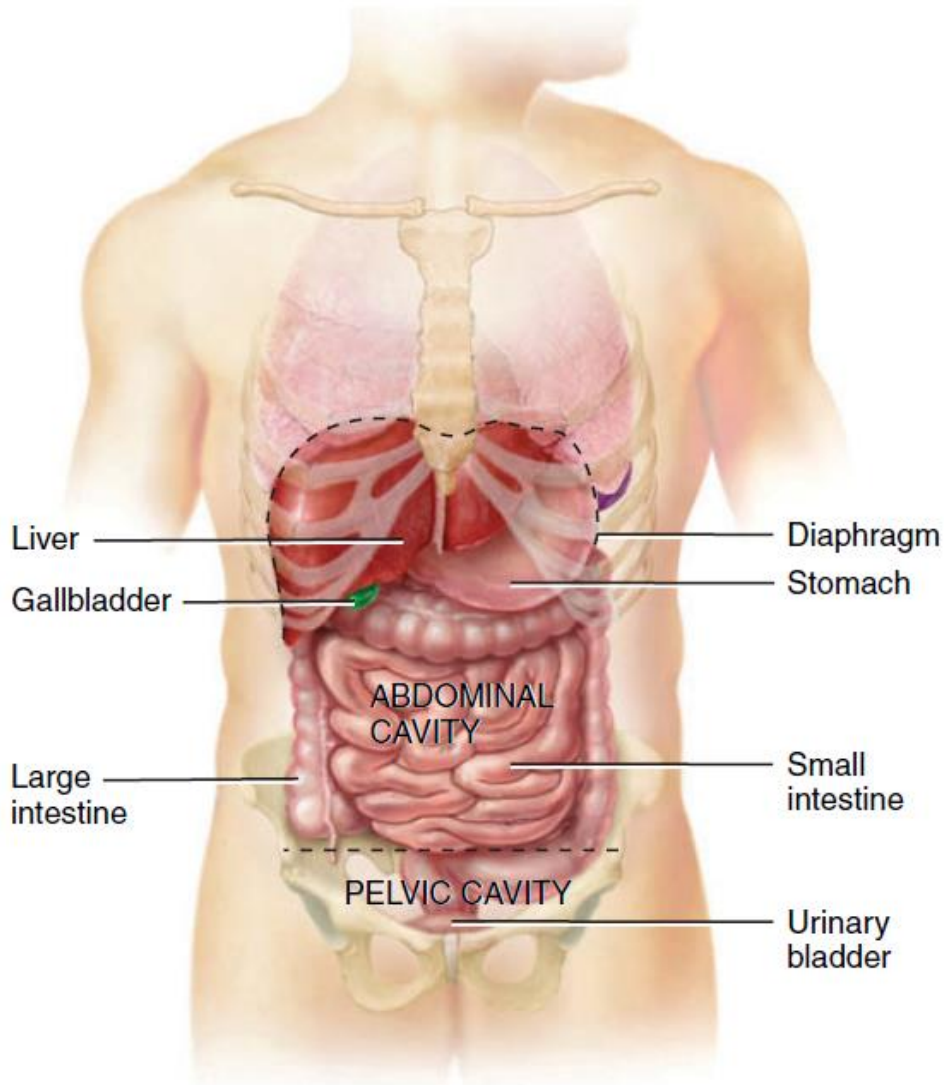
(a) Anterior view of thoracic cavity



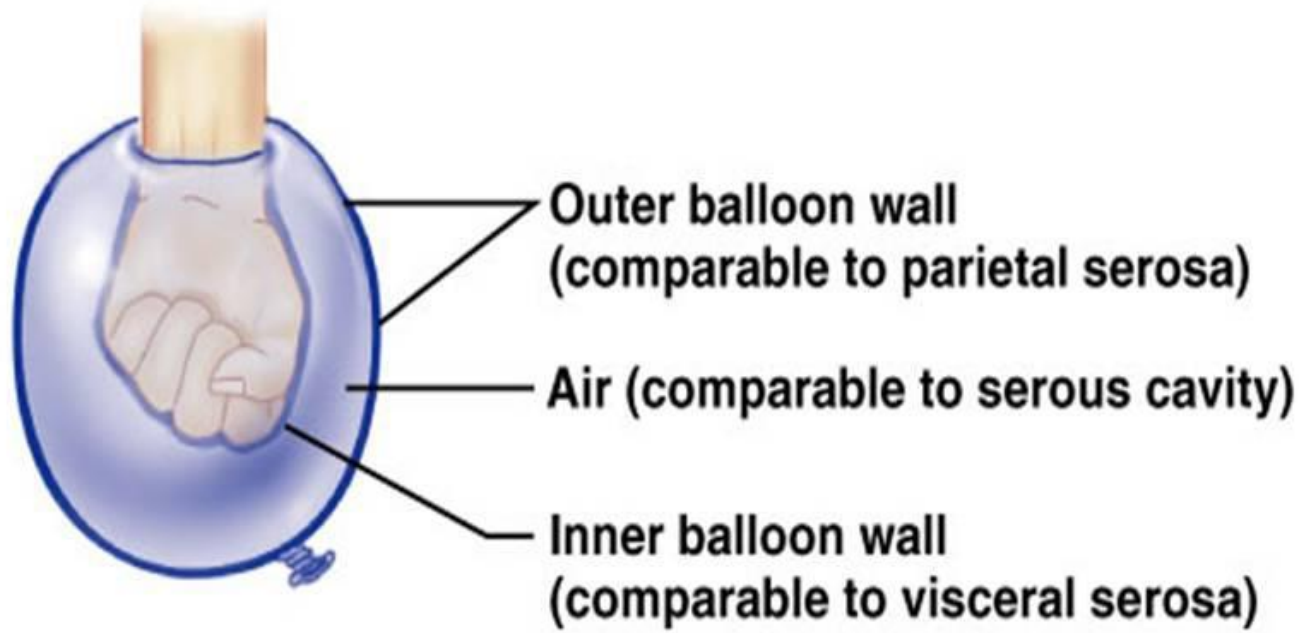
(b) Inferior view of transverse section of thoracic cavity

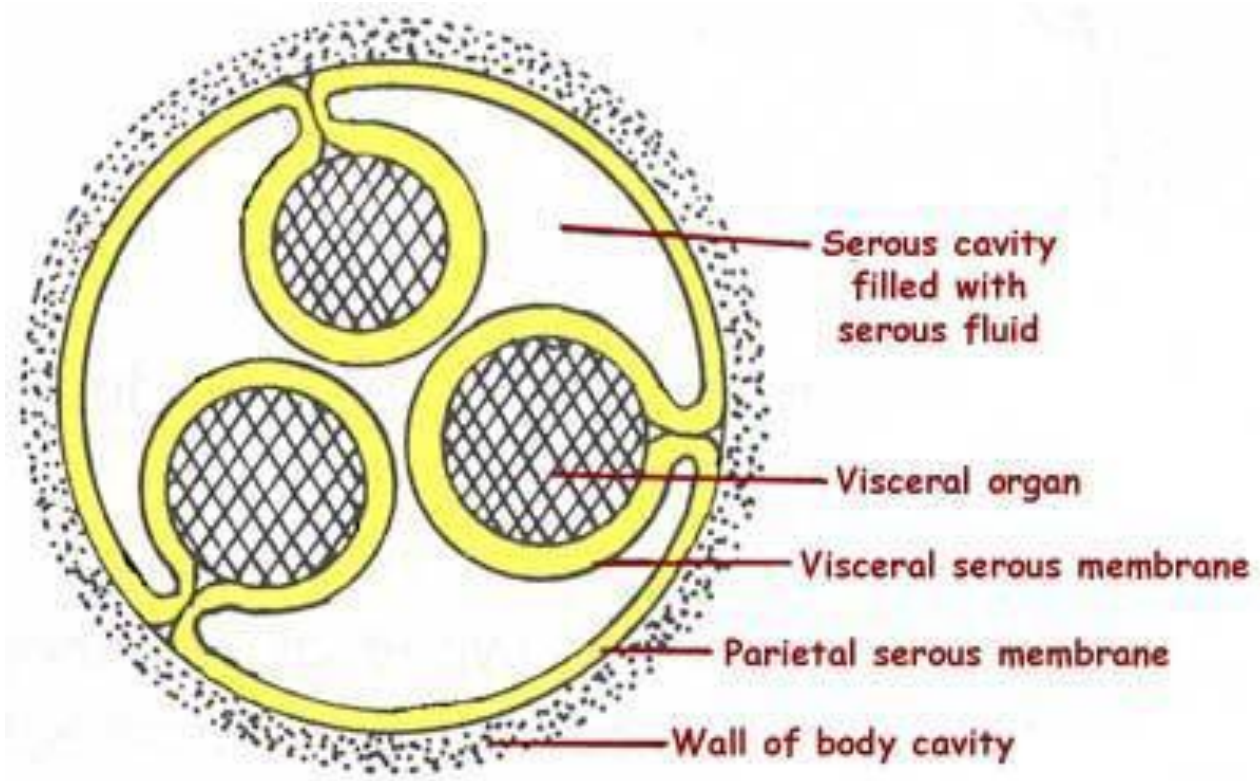

Esterno
Diafragma
Cavidade abdominal
Abertura superior da pelve
Cavidade pélvica
Sínfise púbica

The abdominopelvic cavity extends from the diaphragm to the groin.



Anterior view


Outer balloon wall
(comparable to parietal serosa)
Air (comparable to serous cavity)
Inner balloon wall
(comparable to visceral serosa)


Serous cavity
filled with
serous fluid
Visceral organ
Visceral serous membrane
Parietal serous membrane
Wall of body cavity

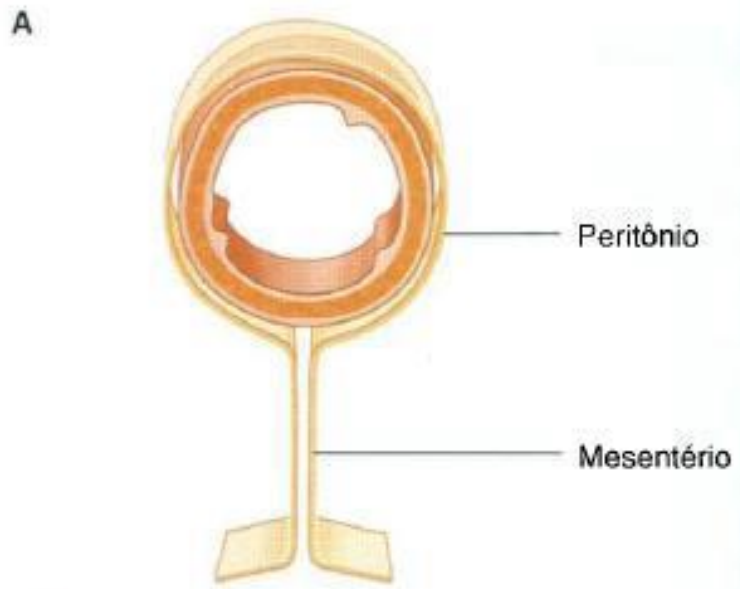
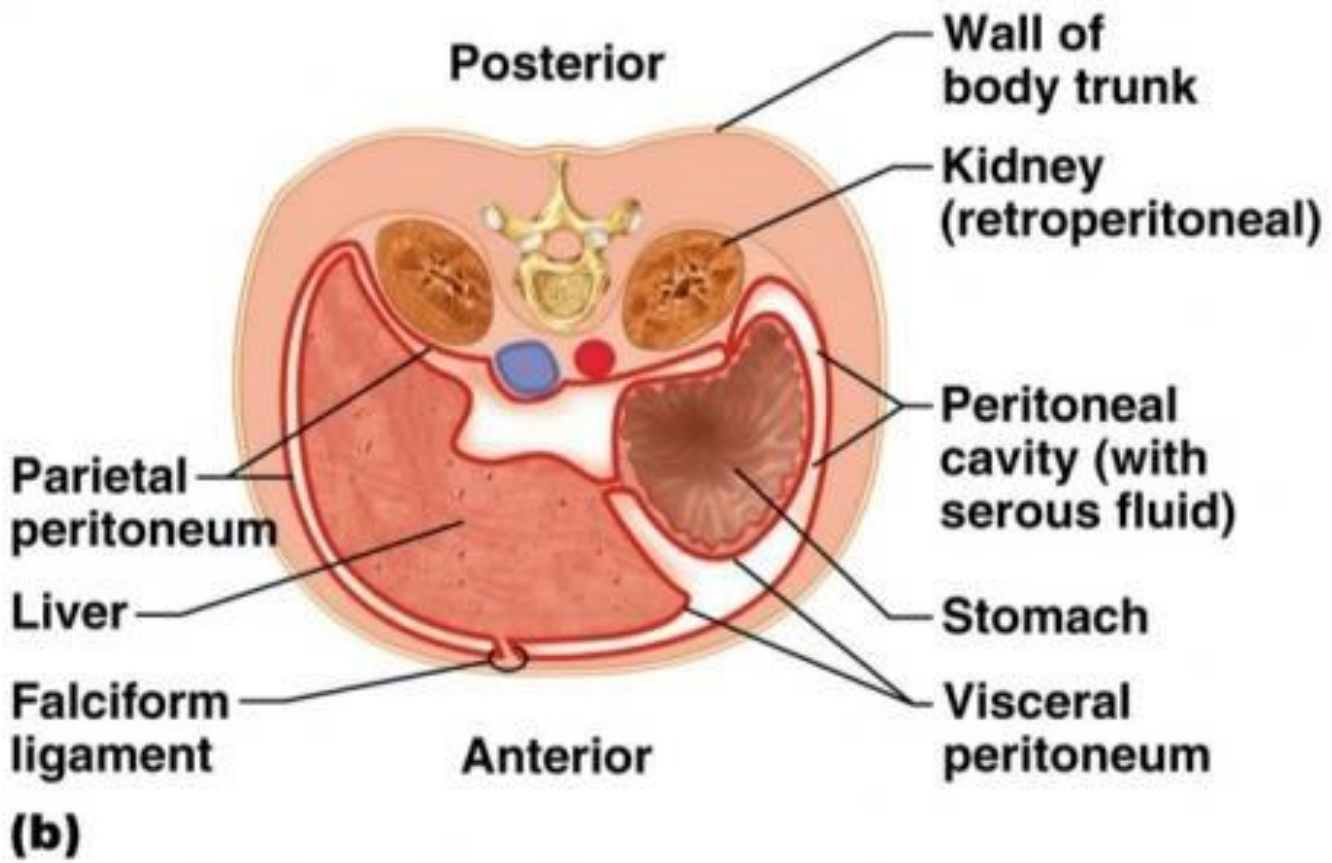
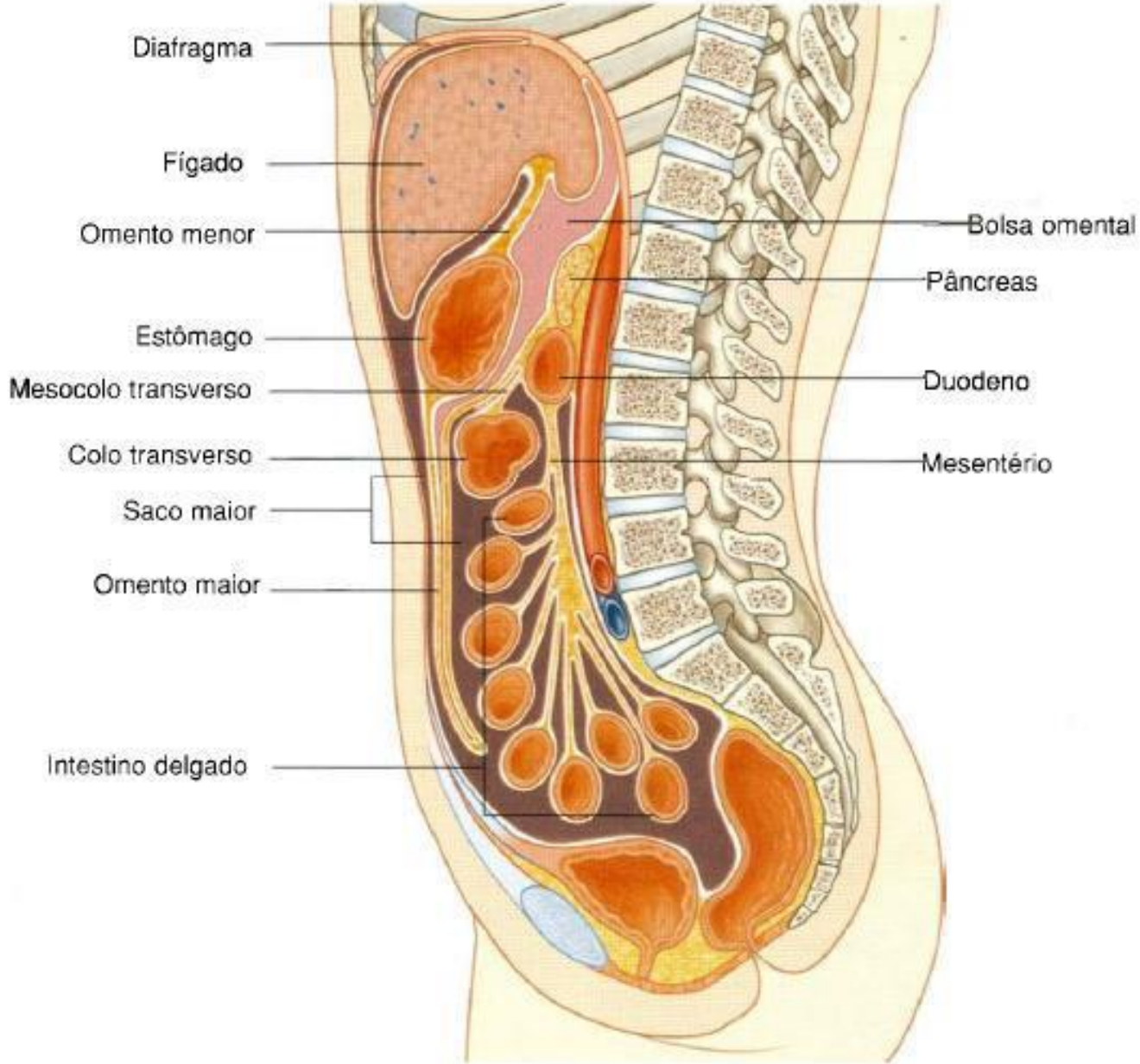


Fig. 4.52 A. Intraperitoneal. **B.** Retroperitoneal.




Diafragma
Fígado
Omento menor
Estômago
Mesocolo transverso
Colo transverso
Saco maior
Omento maior
Intestino delgado
Bolsa omental
Pâncreas
Duodeno
Mesentério