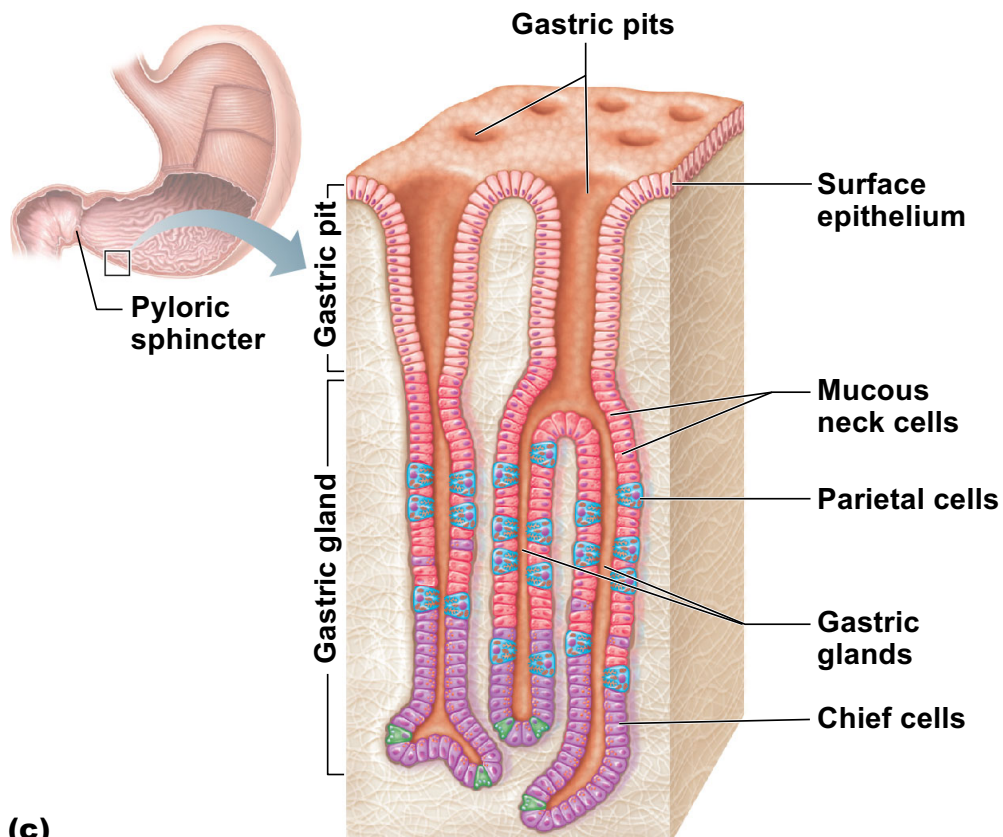
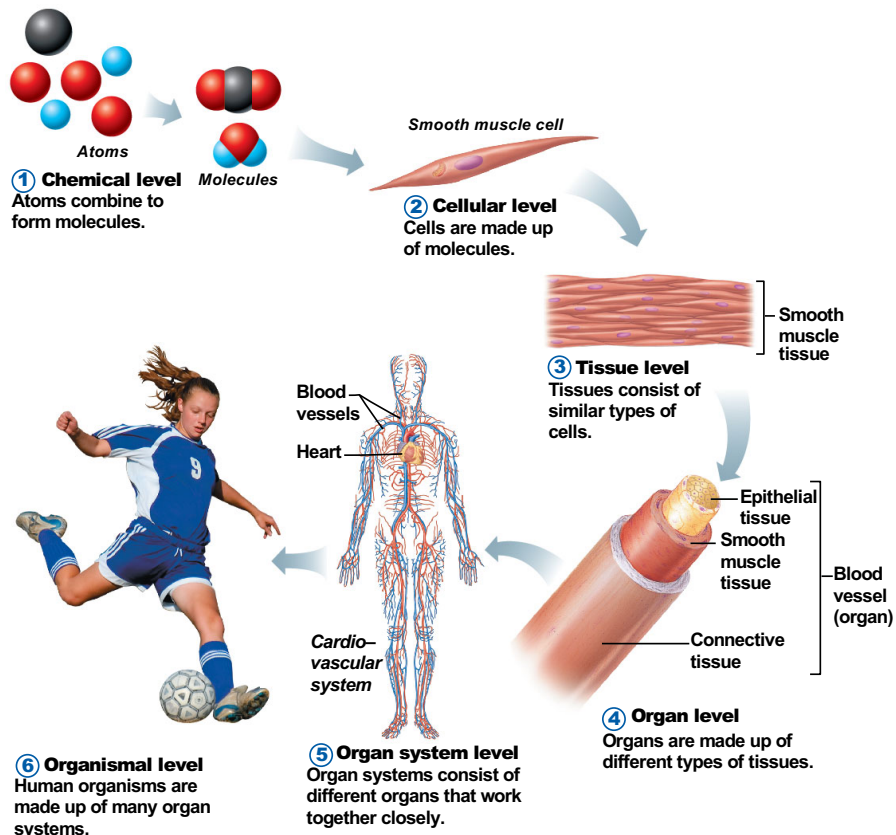
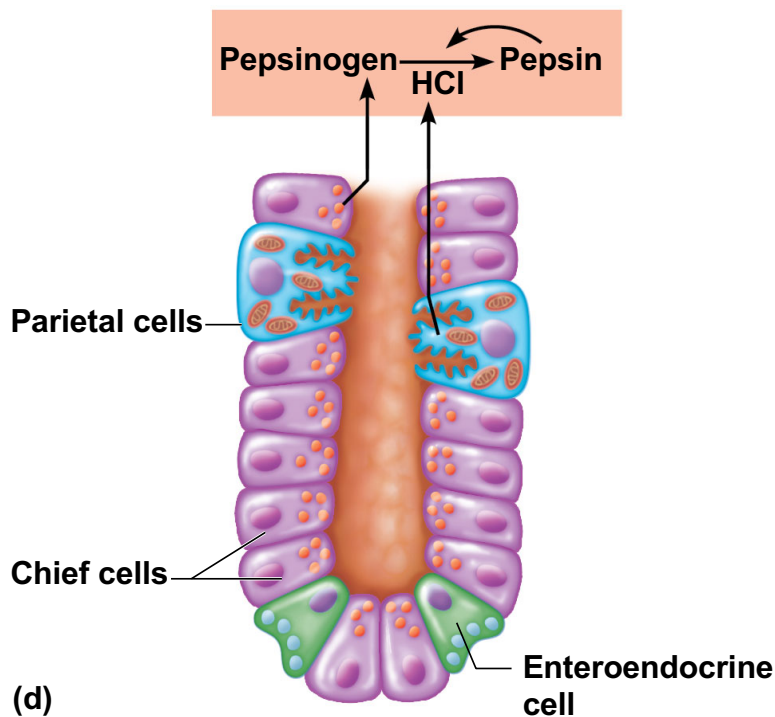


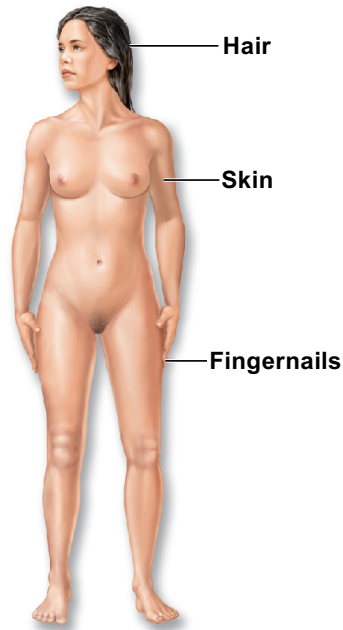
(i) Digestive System

Breaks food down into absorbable nutrients that enter the blood for distribution to body cells; indigestible foodstuffs are eliminated as feces.



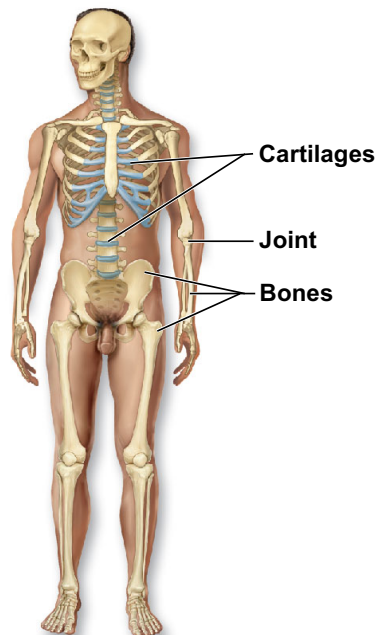
(c)





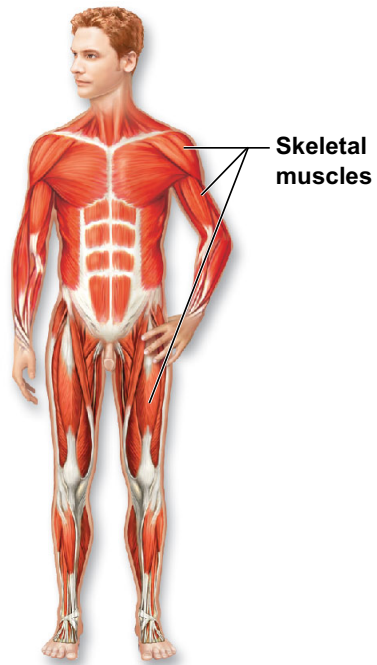
(a) Integumentary System

Forms the external body covering; protects deeper tissue from injury; synthesizes vitamin D; location of sensory receptors (pain, pressure, etc.) and sweat and oil glands.



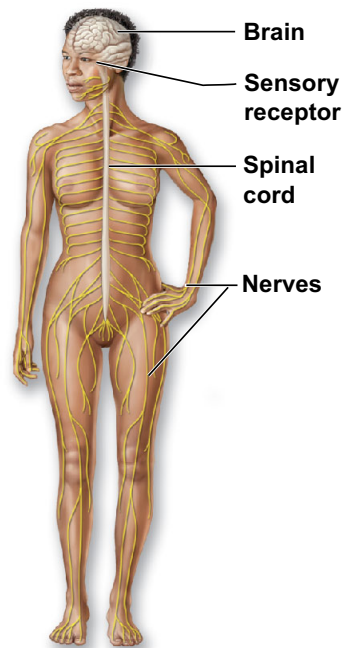
(b) Skeletal System

Protects and supports body organs; provides a framework the muscles use to cause movement; blood cells are formed within bones; stores minerals.



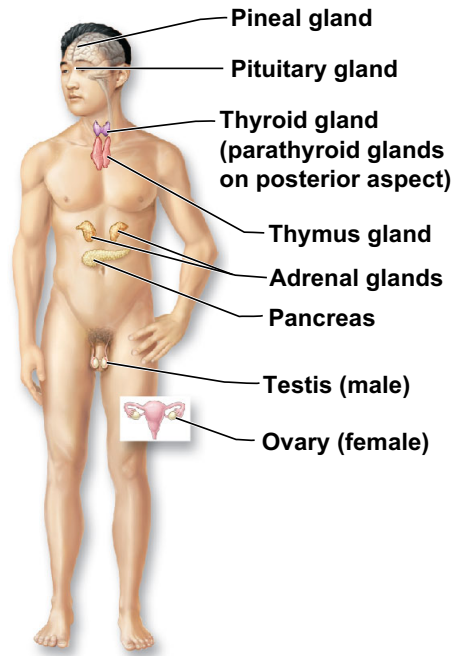
(c) Muscular System

Allows manipulation of the environment, locomotion, and facial expression; maintains posture; produces heat.



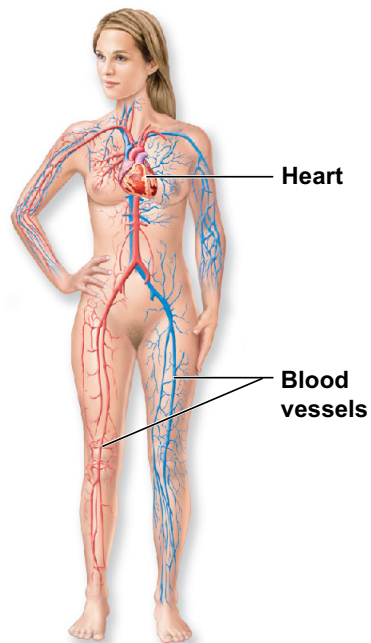
(d) Nervous System

Fast-acting control system of the body; responds to internal and external changes by activating appropriate muscles and glands.



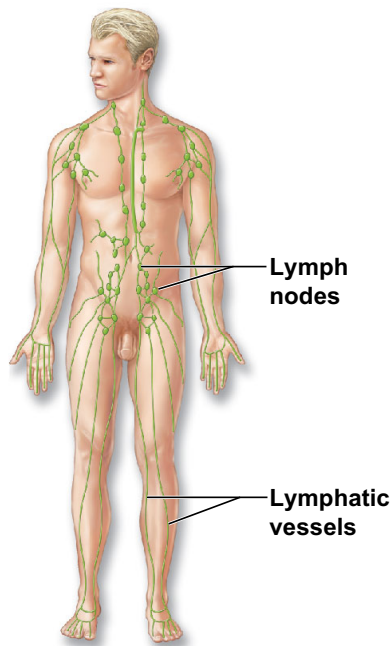
(e) Endocrine System

Glands secrete hormones that regulate processes such as growth, reproduction, and nutrient use by body cells.



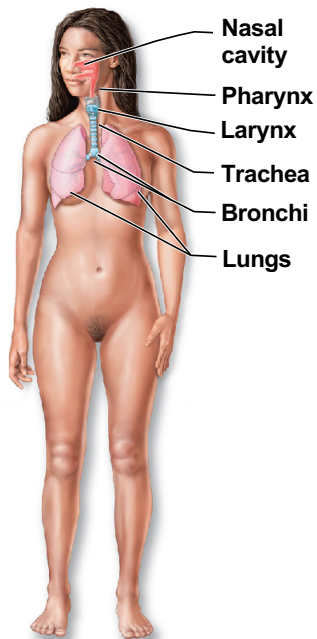
(f) Cardiovascular System

Blood vessels transport blood, which carries oxygen, nutrients, hormones, carbon dioxide, wastes, etc.; the heart pumps blood.



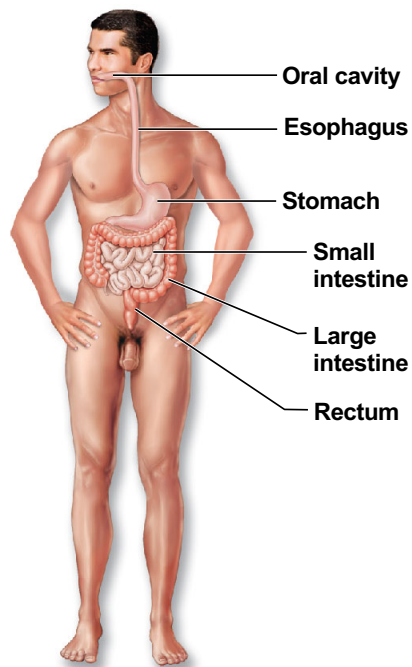
(g) Lymphatic System

Picks up fluid leaked from blood vessels and returns it to blood; disposes of debris in the lymphatic stream; houses white blood cells involved in immunity.



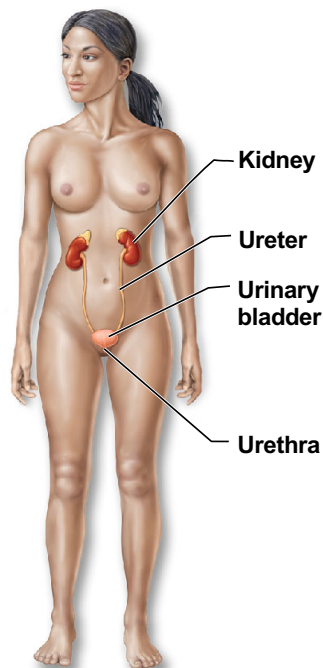
(h) Respiratory System

Keeps blood constantly supplied with oxygen and removes carbon dioxide; the gaseous exchanges occur through the walls of the air sacs of the lungs.



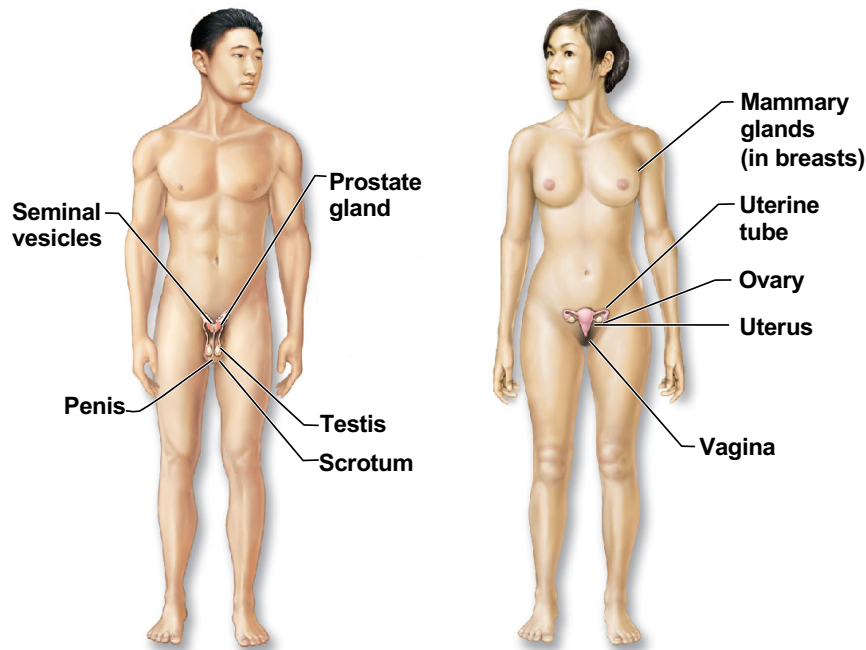
(i) Digestive System

Breaks food down into absorbable nutrients that enter the blood for distribution to body cells; indigestible foodstuffs are eliminated as feces.



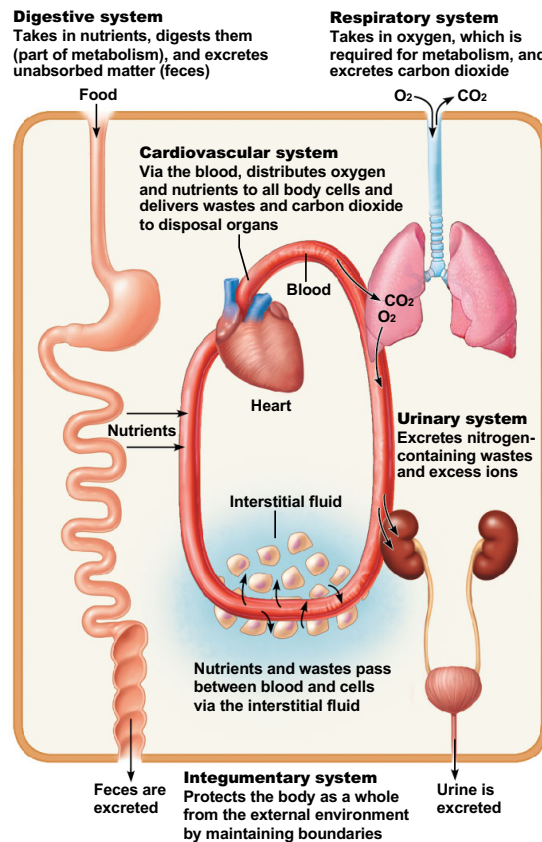
(j) Urinary System

Eliminates nitrogen-containing wastes from the body; regulates water, electrolyte, and acid-base balance of the blood.



(k) Male Reproductive System (l) Female Reproductive System

Overall function of the reproductive system is production of offspring. Testes produce sperm and male sex hormone; ducts and glands aid in delivery of viable sperm to the female reproductive tract. Ovaries produce eggs and female sex hormones; remaining structures serve as sites for fertilization and development of the fetus. Mammary glands of female breasts produce milk to nourish the newborn.



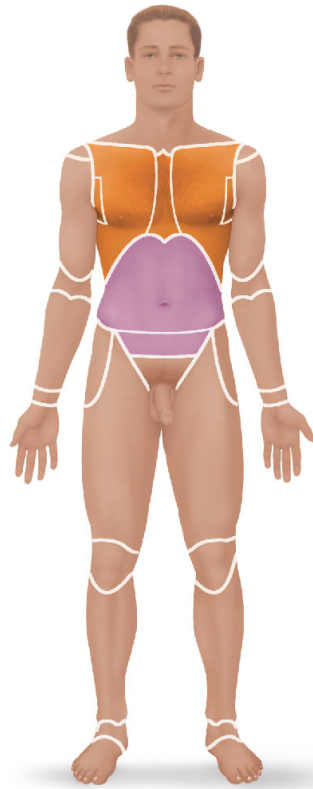


Table 1.1 Orientation and Directional Terms

Term	Definition	Illustration	Example
Superior (cranial or cephalic)	Toward the head end or upper part of a structure or the body; above		The forehead is superior to the nose.
Inferior (caudal)*	Away from the head end or toward the lower part of a structure or the body; below		The navel is inferior to the breastbone.
Anterior (ventral)†	Toward or at the front of the body; in front of		The breastbone is anterior to the spine.
Posterior (dorsal)†	Toward or at the backside of the body; behind		The heart is posterior to the breastbone.

*The term caudal, literally "toward the tail," is synonymous with *inferior* only to the inferior end of the spine.

†*Anterior* and *ventral* are synonymous in humans, but not in four-legged animals. *Ventral* refers to an animal's "belly," making it the inferior surface. Likewise, posterior and dorsal surfaces are the same in humans, but *dorsal* refers to an animal's back, making it the superior surface.

Table 1.1 Orientation and Directional Terms (continued)

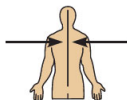
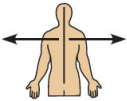

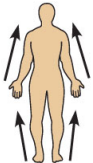
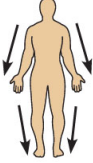


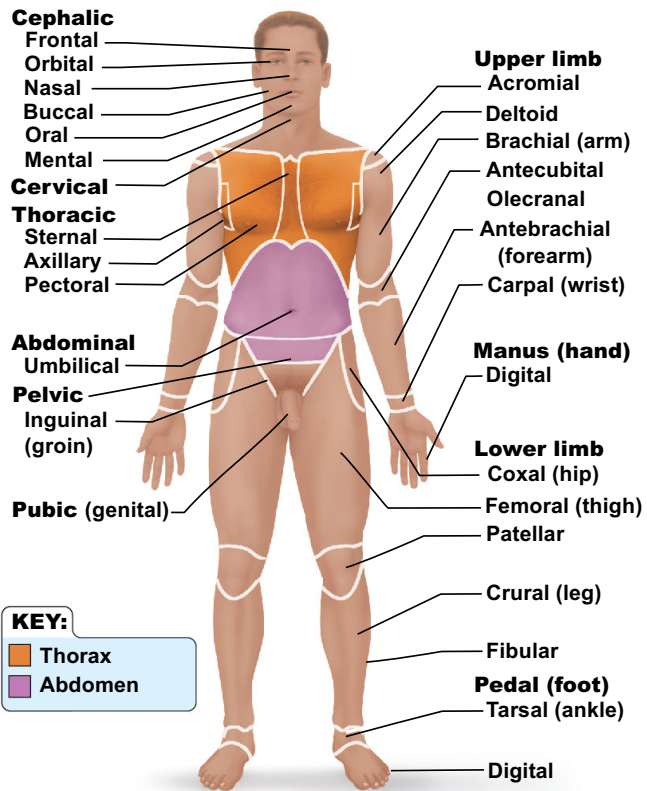
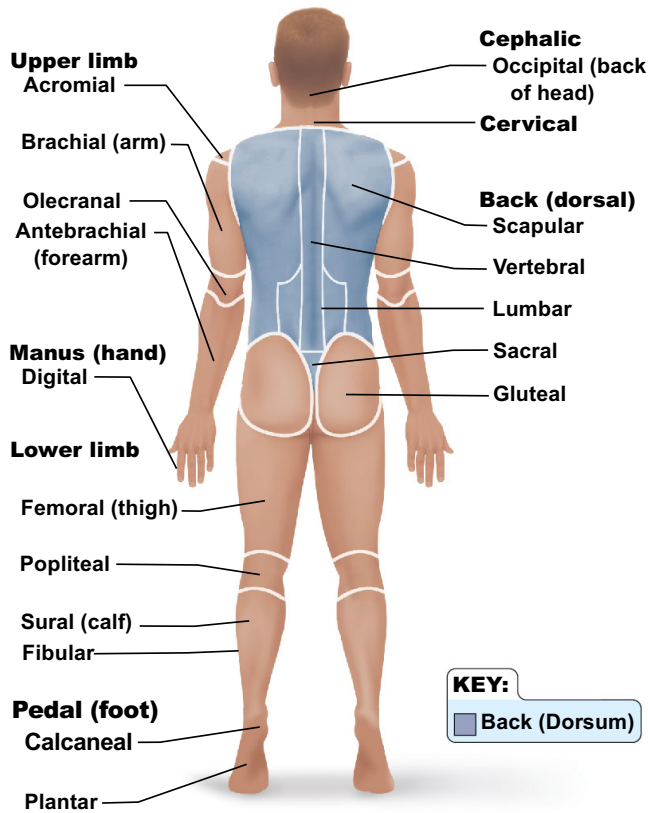
Term	Definition	Illustration	Example
Medial	Toward or at the midline of the body; on the inner side of		The heart is medial to the arm.
Lateral	Away from the midline of the body; on the outer side of		The arms are lateral to the chest.
Intermediate	Between a more medial and a more lateral structure		The collarbone is intermediate between the breastbone and the shoulder.
Proximal	Close to the origin of the body part or the point of attachment of a limb to the body trunk		The elbow is proximal to the wrist (meaning that the elbow is closer to the shoulder or attachment point of the arm than the wrist is).
Distal	Farther from the origin of a body part or the point of attachment of a limb to the body trunk		The knee is distal to the thigh.

Table 1.1 Orientation and Directional Terms (continued)

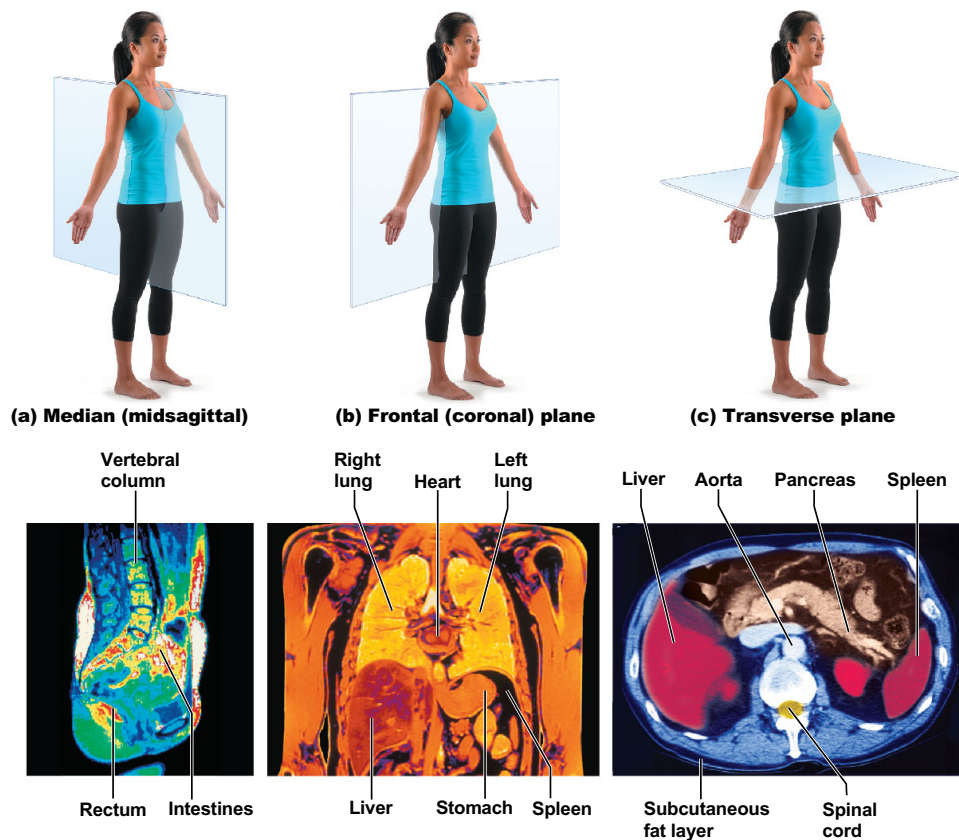
Term	Definition	Illustration	Example
Superficial (external)	Toward or at the body surface		The skin is superficial to the skeleton.
Deep (internal)	Away from the body surface; more internal		The lungs are deep to the rib cage.



(a) Anterior/Ventral

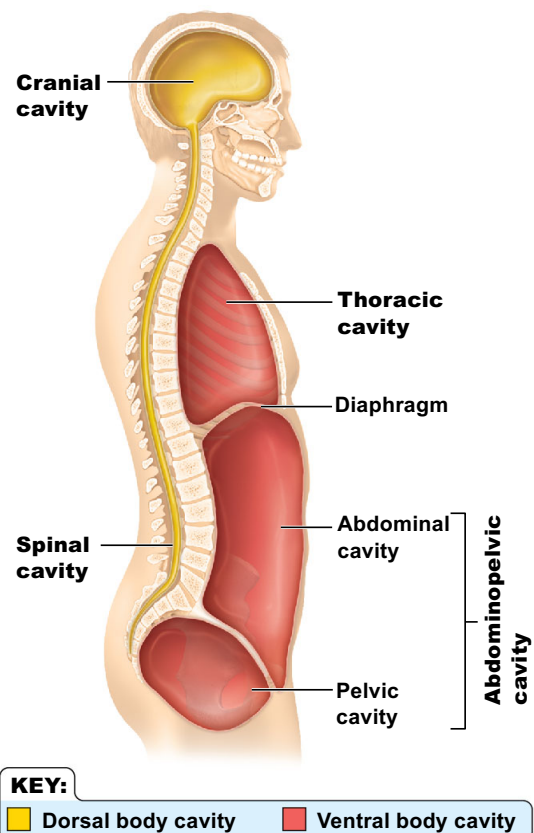


(b) Posterior/Dorsal



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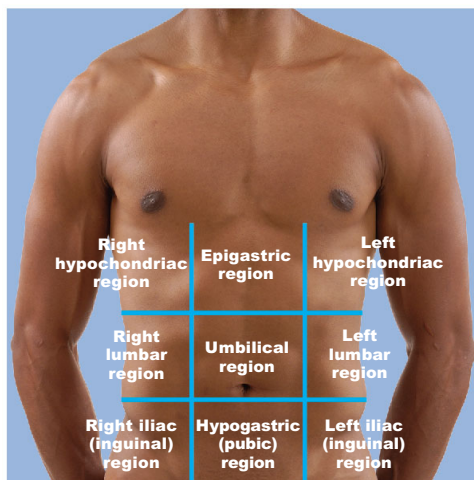
24

Right upper
quadrant
(RUQ)

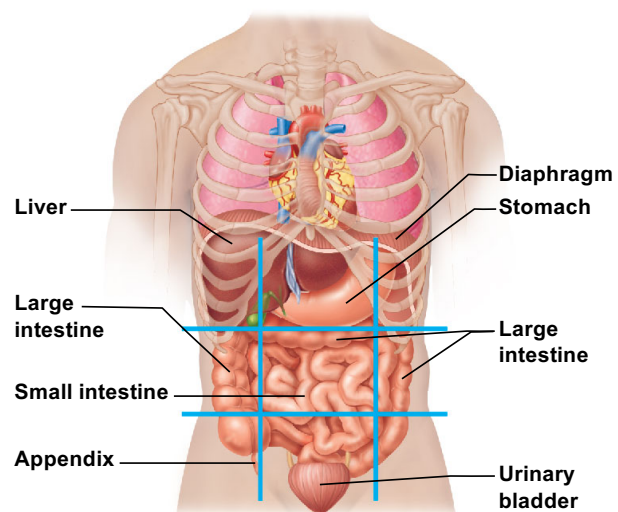
Left upper
quadrant
(LUQ)

Right lower
quadrant
(RLQ)

Left lower
quadrant
(LLQ)



(a) Nine regions delineated by four planes



(b) Anterior view of the nine regions showing the superficial organs

