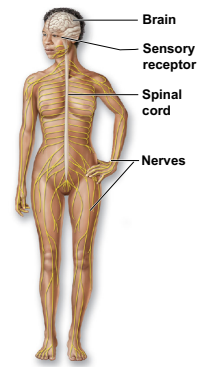


(c) Muscular System

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

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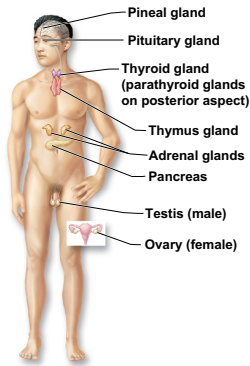


(d) Nervous System

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

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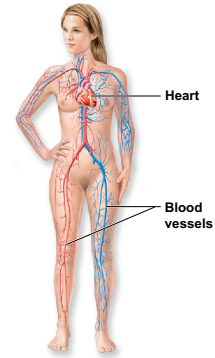


(e) Endocrine System

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

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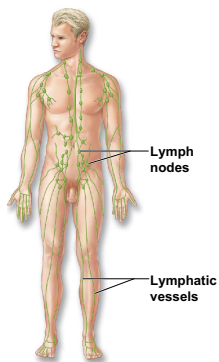


(f) Cardiovascular System

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

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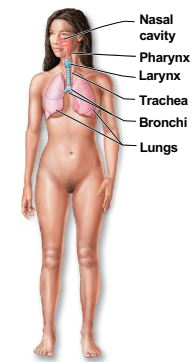


(g) Lymphatic System

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.

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(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.

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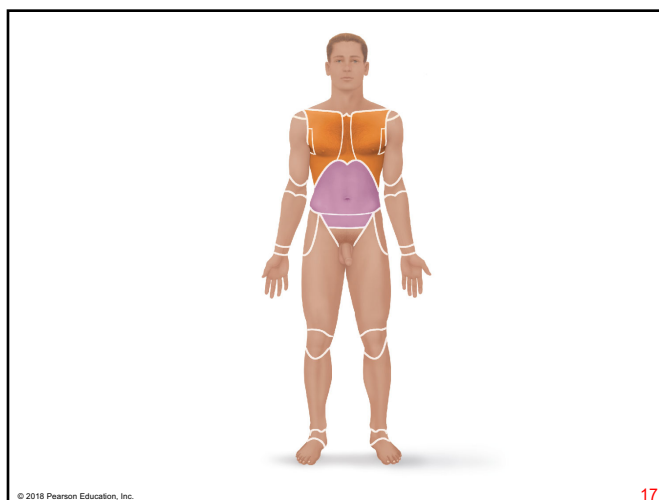
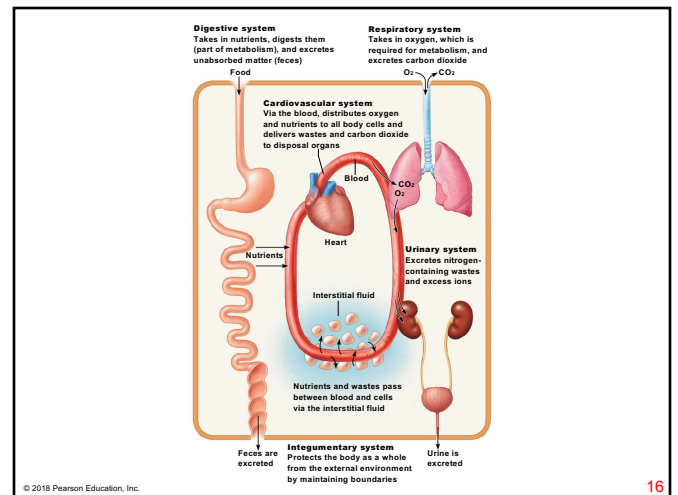
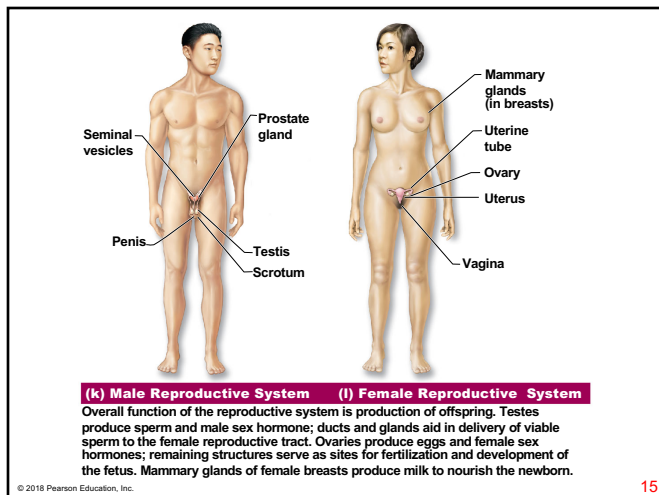
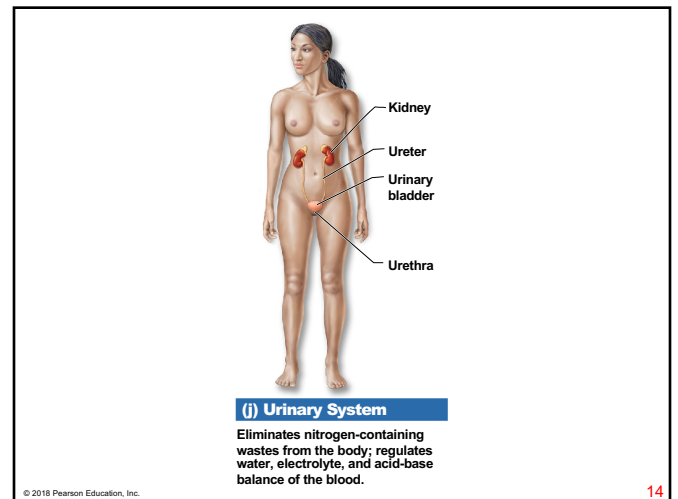
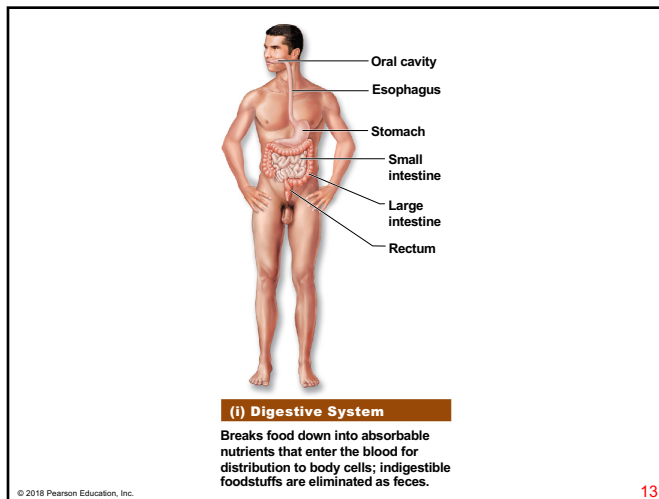


Table 1.1 Orientation and Directional Terms

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.

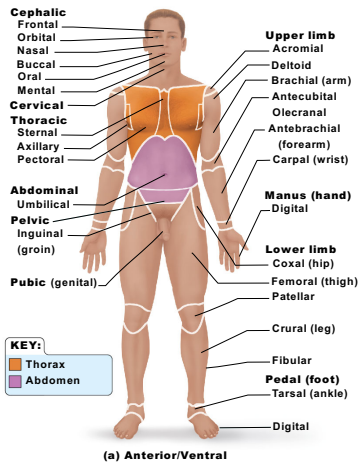
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Table 1.1 Orientation and Directional Terms (continued)

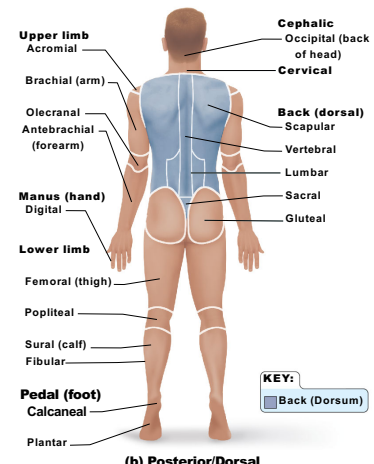
Term	Definition	Illustration	Example
Medial	Toward or at the midline of the body; on the inner side of		The heart is medial to the arm.
Lateral	Away from the midline of the body; on the outer side of		The arms are lateral to the chest.
Intermediate	Between a more medial and a more lateral structure		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)

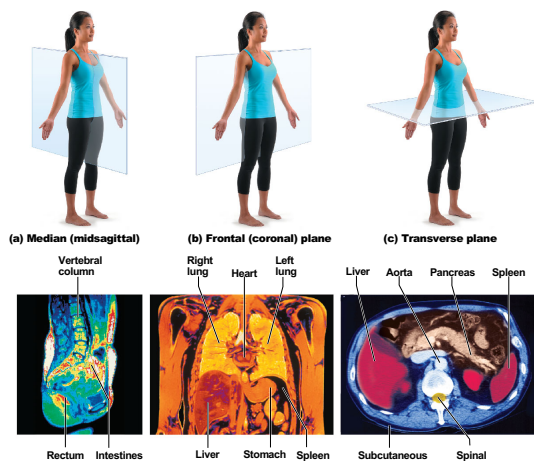
Term	Definition	Illustration	Example
Superficial (external)	Toward or at the body surface		The skin is superficial to the skeleton.
Deep (internal)	Away from the body surface; more internal		The lungs are deep to the rib cage.



(a) Anterior/Ventral



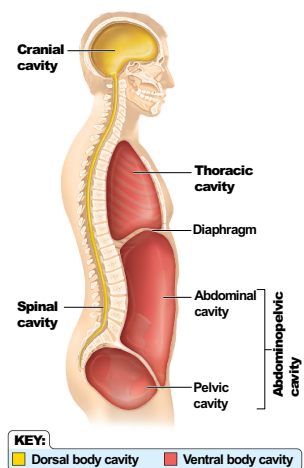
(b) Posterior/Dorsal



(a) Median (midsagittal)

(b) Frontal (coronal) plane

(c) Transverse plane



KEY: Dorsal body cavity Ventral body cavity

