

An anatomical illustration of a human arm and hand, with the muscles highlighted in a vibrant red color. The arm is positioned vertically, with the hand at the bottom and the shoulder at the top. The background is a dark, solid color, which makes the red muscles stand out prominently. The illustration is detailed, showing the texture and structure of the muscles.

SHS 306 LECTURE NOTE

Introduction to Muscles of the Body

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Revision (Body Positions)

- A human standing erect with the face directed forward, the arms hanging to the sides, and the palms facing forward is in the anatomical position.
- A person lying face upward is supine; a person lying face downward is prone.
- Directional terms always refer to the anatomical position, no matter what the actual position of the body.

FUNDAMENTAL Figure

Directional terms

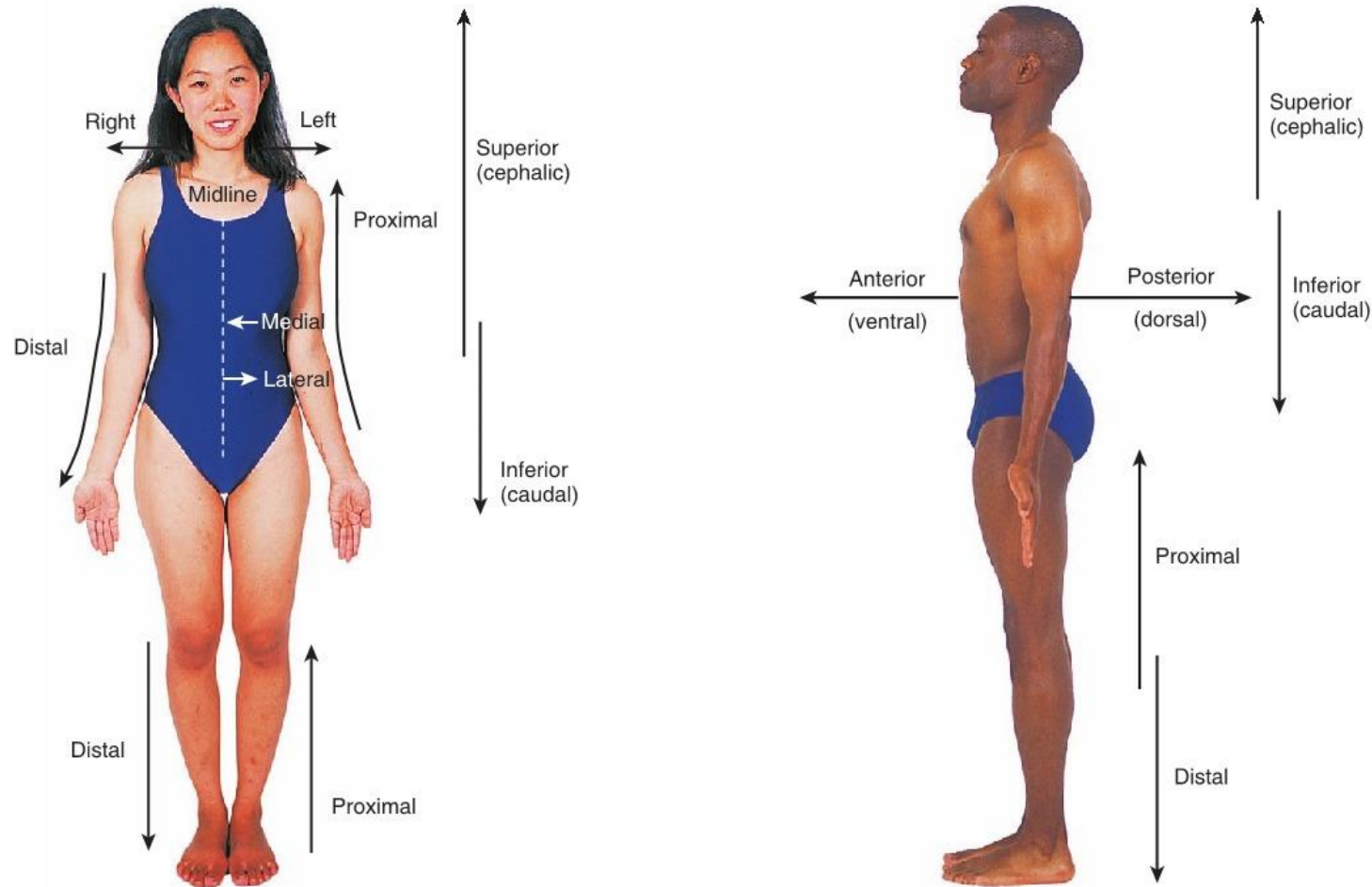


FIGURE 1.9 **AP|R** Directional Terms

All directional terms are in relation to the body in the anatomical position: a person standing erect with the face directed forward, the arms hanging to the sides, and the palms of the hands facing forward.

TABLE 1.2

Directional Terms for Humans

Terms	Etymology*	Definition	Examples
Right		Toward the right side of the body	Right ear
Left		Toward the left side of the body	Left eye
Superior	L. higher	A structure above another	The chin is superior to the navel.
Inferior	L. lower	A structure below another	The navel is inferior to the chin.
Cephalic	G. <i>kephale</i> , head	Closer to the head than another structure (usually synonymous with <i>superior</i>)	The chin is cephalic to the navel.
Caudal	L. <i>cauda</i> , a tail	Closer to the tail than another structure (usually synonymous with <i>inferior</i>)	The navel is caudal to the chin.
Anterior	L. before	The front of the body	The navel is anterior to the spine.
Posterior	L. <i>posterus</i> , following	The back of the body	The spine is posterior to the breastbone.
Ventral	L. <i>ventr-</i> , belly	Toward the belly (synonymous with <i>anterior</i>)	The navel is ventral to the spine.
Dorsal	L. <i>dorsum</i> , back	Toward the back (synonymous with <i>posterior</i>)	The spine is dorsal to the breastbone.
Proximal	L. <i>proximus</i> , nearest	Closer to the point of attachment to the body than another structure	The elbow is proximal to the wrist.
Distal	L. <i>di-</i> plus <i>sto</i> , to stand apart or be distant	Farther from the point of attachment to the body than another structure	The wrist is distal to the elbow.
Lateral	L. <i>latus</i> , side	Away from the midline of the body	The nipple is lateral to the breastbone.
Medial	L. <i>medialis</i> , middle	Toward the midline of the body	The nose is medial to the eye.
Superficial	L. <i>superficialis</i> , toward the surface	Toward or on the surface (not shown in figure 1.10)	The skin is superficial to muscle.
Deep	O.E. <i>deop</i> , deep	Away from the surface, internal (not shown in figure 1.10)	The lungs are deep to the ribs.

*Origin and meaning of the word: L., Latin; G., Greek; O.E., Old English.

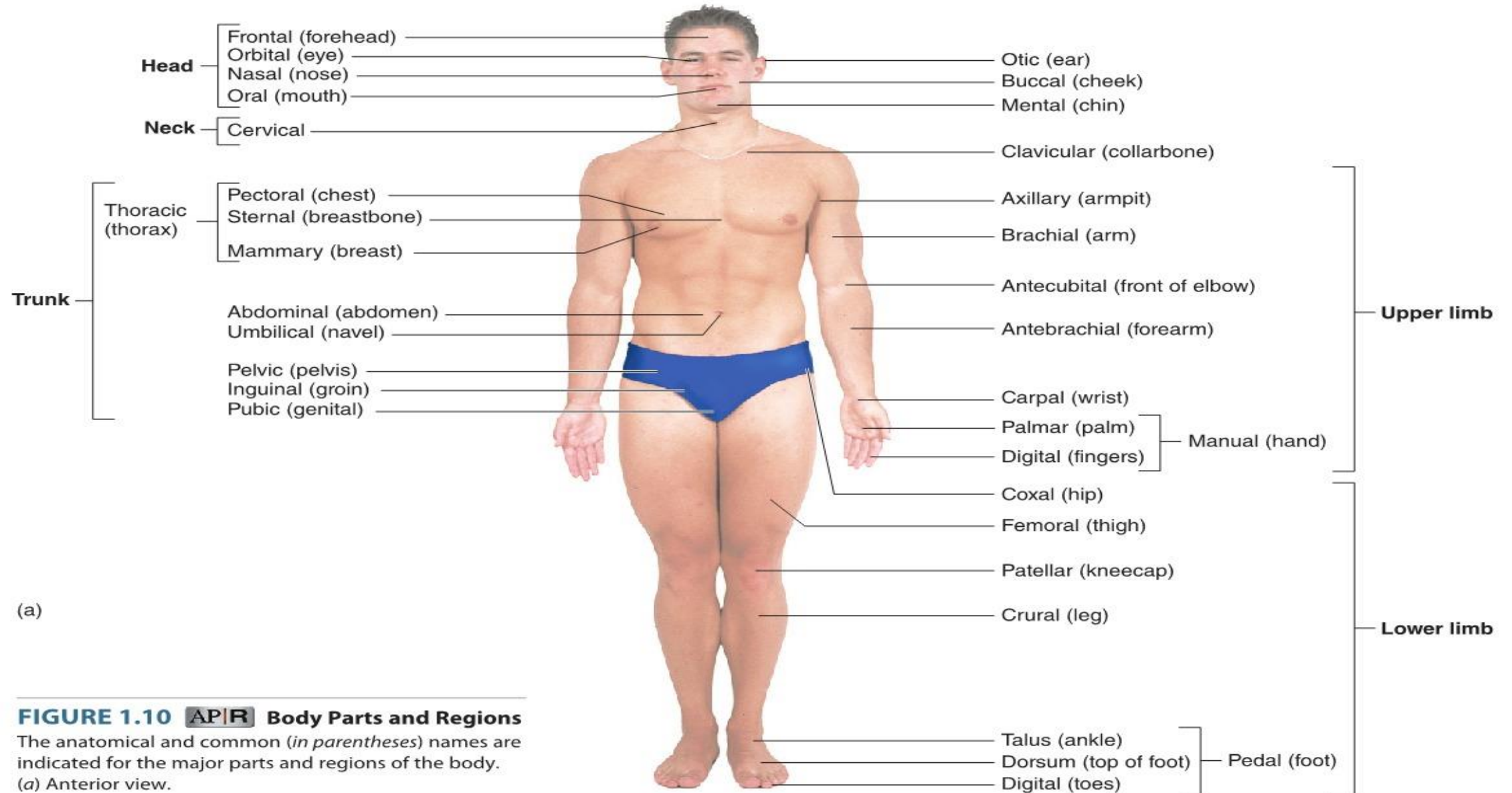


FIGURE 1.10 **AP|R** **Body Parts and Regions**

The anatomical and common (*in parentheses*) names are indicated for the major parts and regions of the body.
(a) Anterior view.

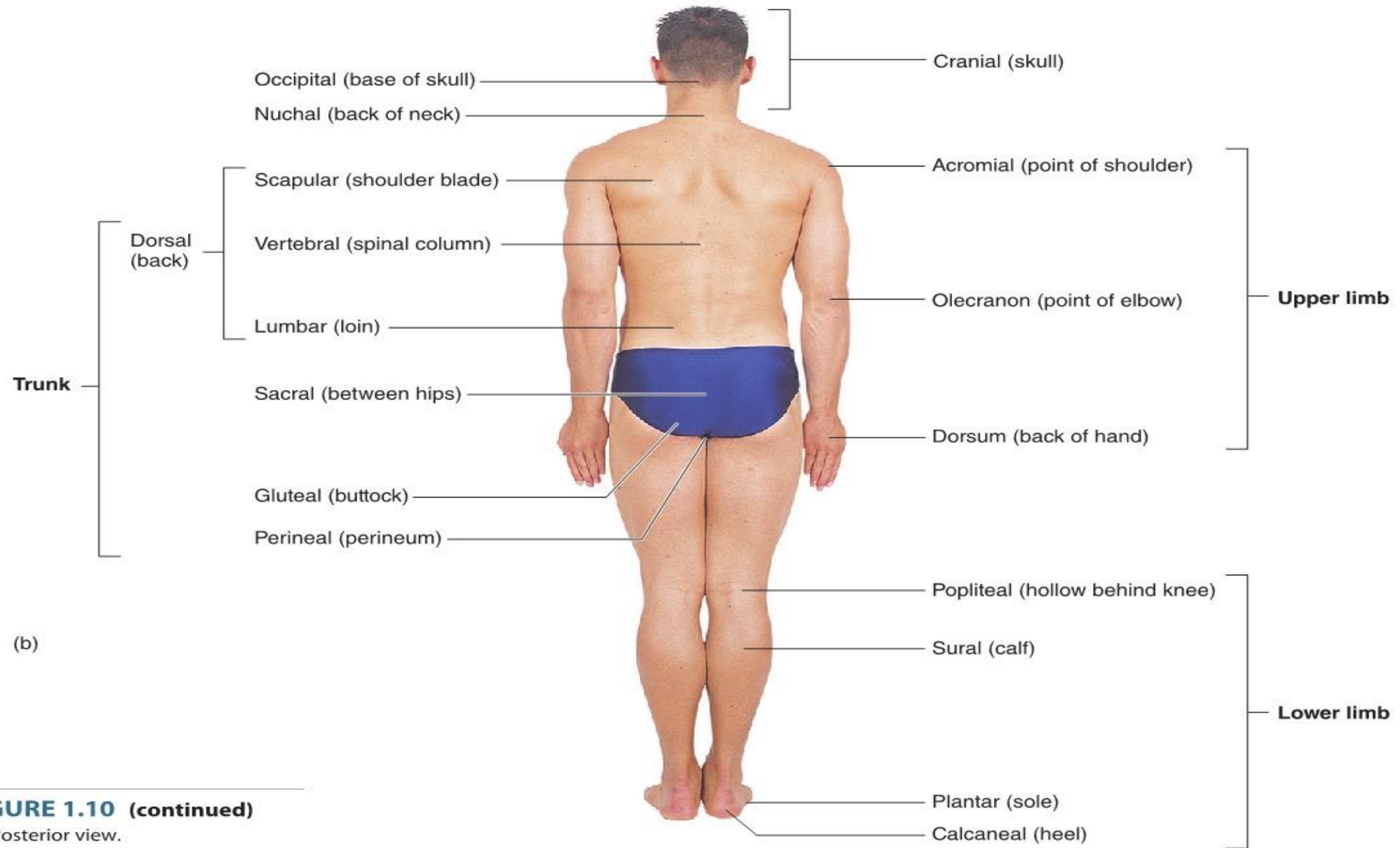


FIGURE 1.10 (continued)

(b) Posterior view.

Revision (Planes of the body)

- A sagittal plane also known as median plane divides the body into right and left parts (equal right and left halves).
- A transverse (horizontal) plane divides the body into superior and inferior portions.
- A frontal (coronal) plane divides the body into anterior and poste-rior parts.

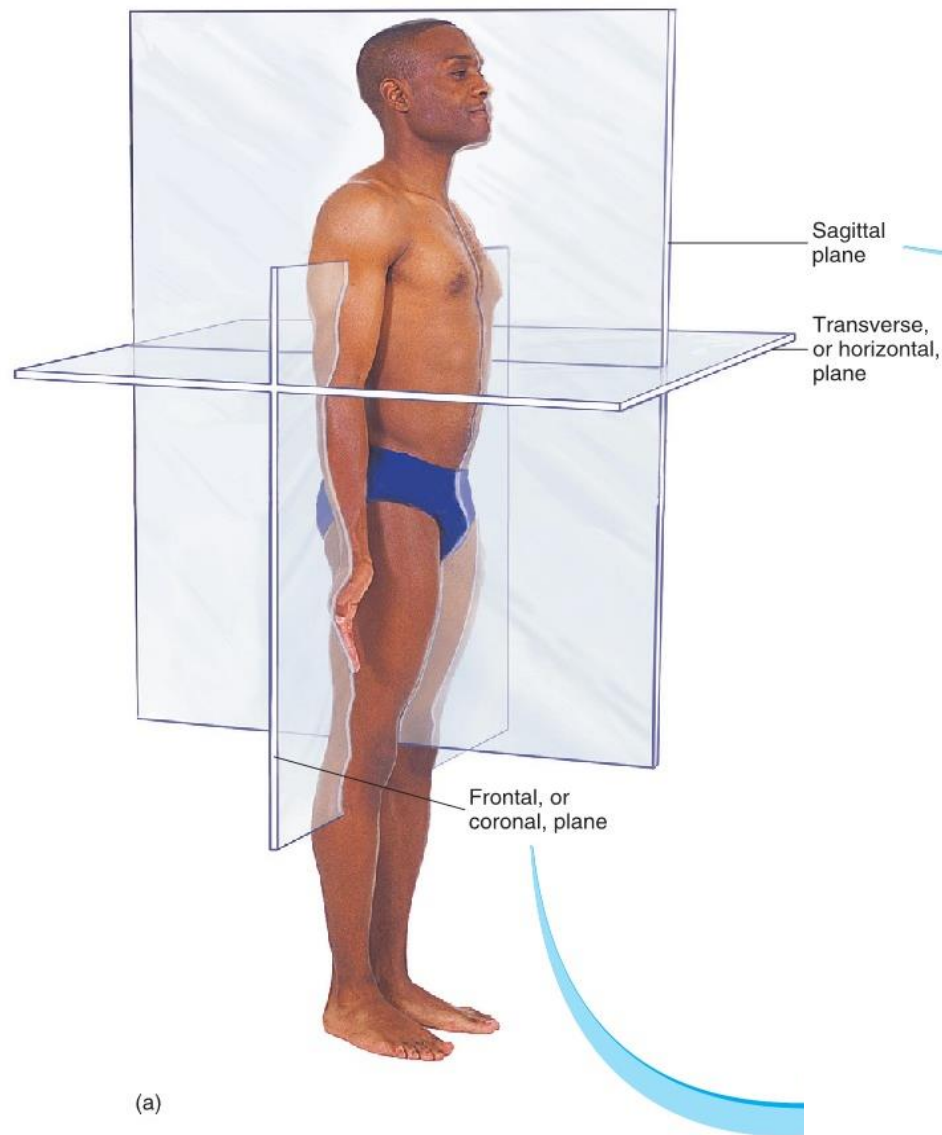


FIGURE 1.12 **AP|R** **Planes Through the Body**

(a) Planes through the body are indicated by "glass" sheets. Also shown are actual sections through (b) the head (viewed from the right), (c) the abdomen (*inferior view*), and (d) the hip (*anterior view*).

Introduction

- Muscles constitute nearly half of the body's weight and occupy a place of central interest in several fields of health care and fitness.
- Muscular system is closely related to skeletal and nervous system in the connecting link of human movement.

Making sense of muscle names

- Muscle names typically describe some distinctive aspects of the structure, location, or action of a muscle, and become very helpful once we grow familiar with a few common Latin words.
- For example, the depressor labii inferioris is a muscle that lowers (depresses) the bottom (inferior) lip (labium), and the flexor digiti minimi brevis is a short (brevis) muscle that flexes the smallest (minimi) finger (digit)

Frontal plane anterior label of the human body

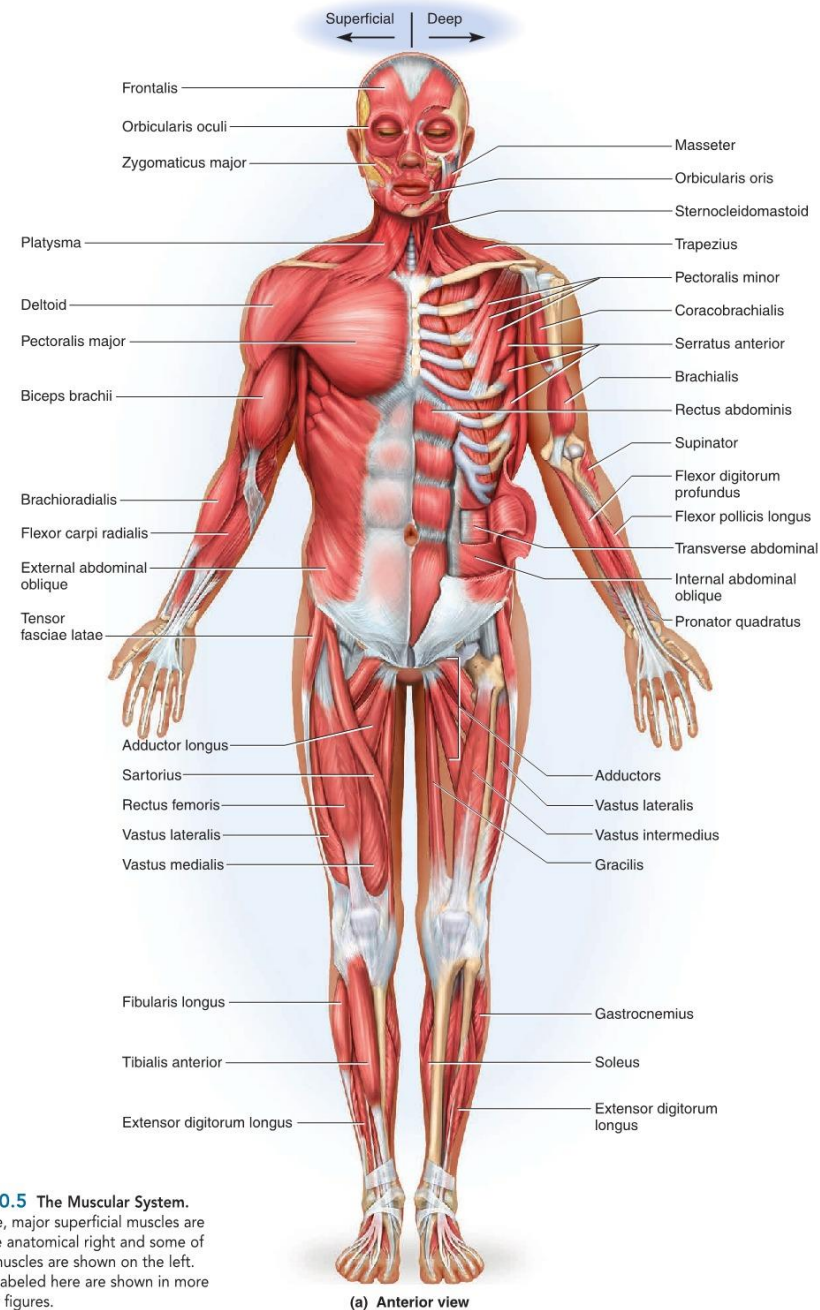
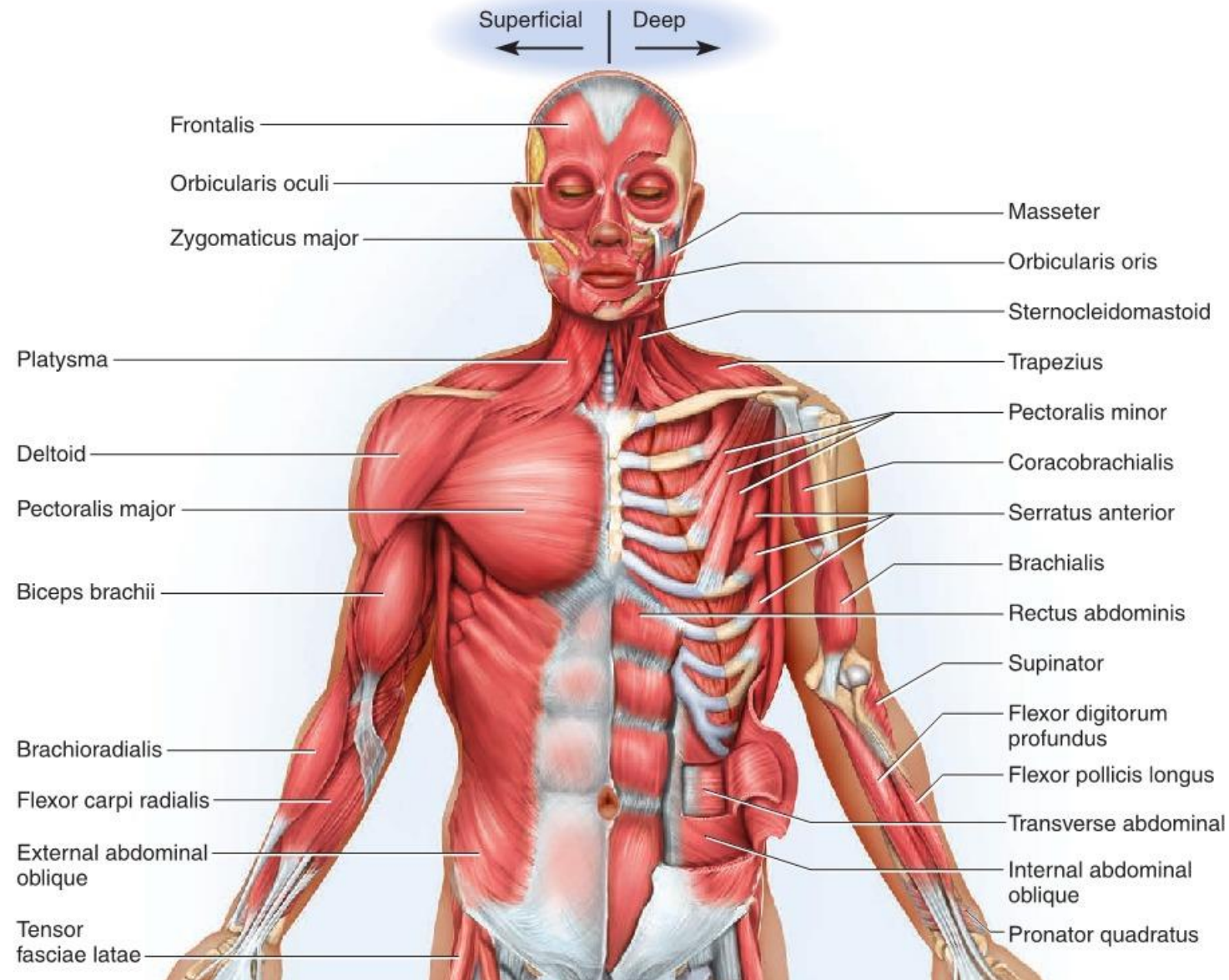


FIGURE 10.5 The Muscular System.
In each figure, major superficial muscles are shown on the anatomical right and some of the deeper muscles are shown on the left. Muscles not labeled here are shown in more detail in later figures.



Note the muscle(s) each of the arrows touches

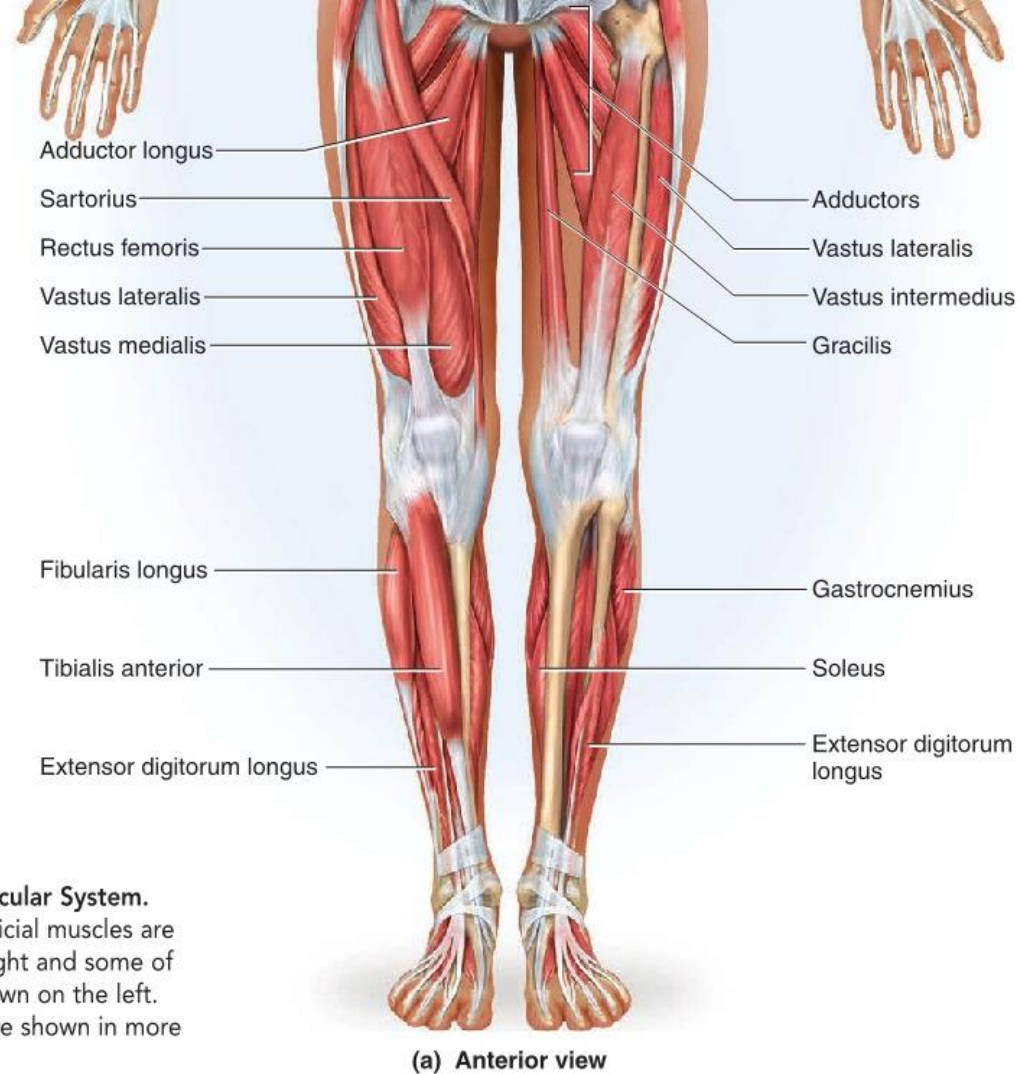


FIGURE 10.5 The Muscular System.

In each figure, major superficial muscles are shown on the anatomical right and some of the deeper muscles are shown on the left. Muscles not labeled here are shown in more detail in later figures.

Note the muscle(s) each of the arrows touches

Frontal plane posterior label of the human body

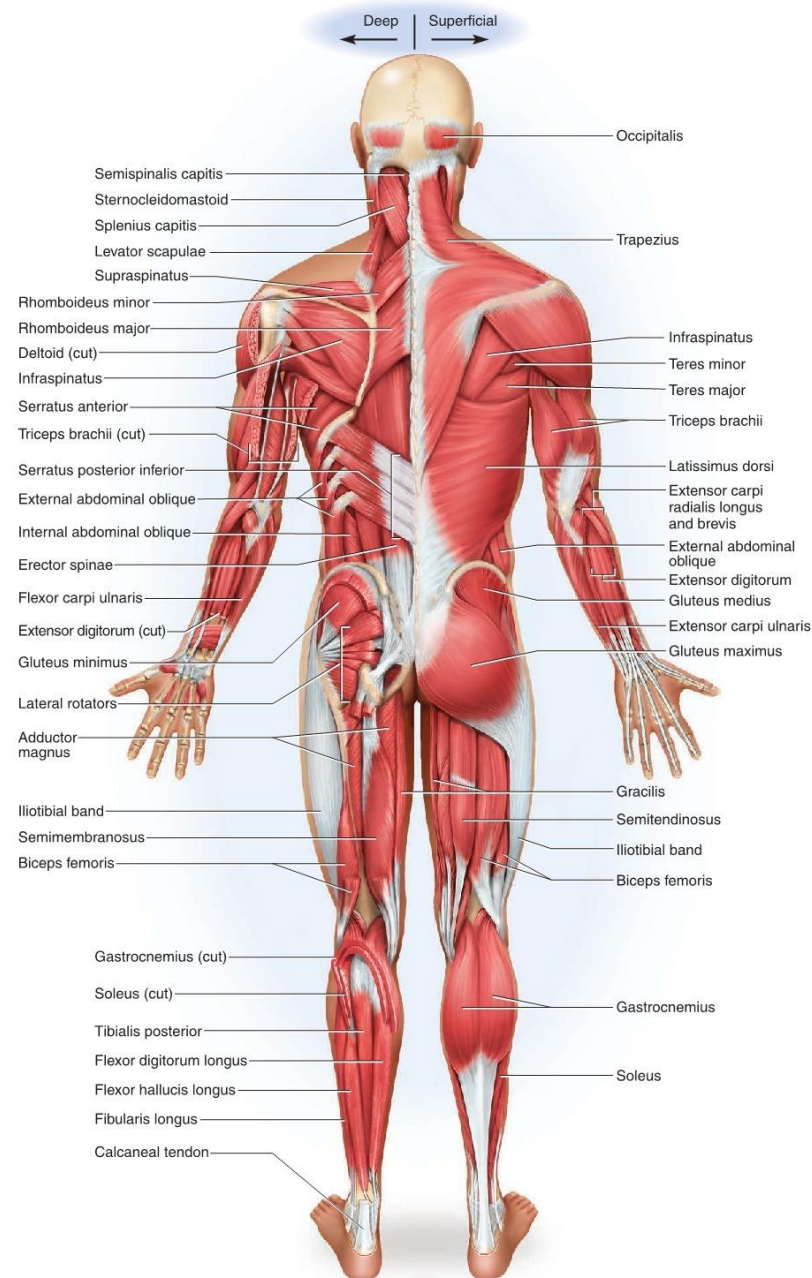
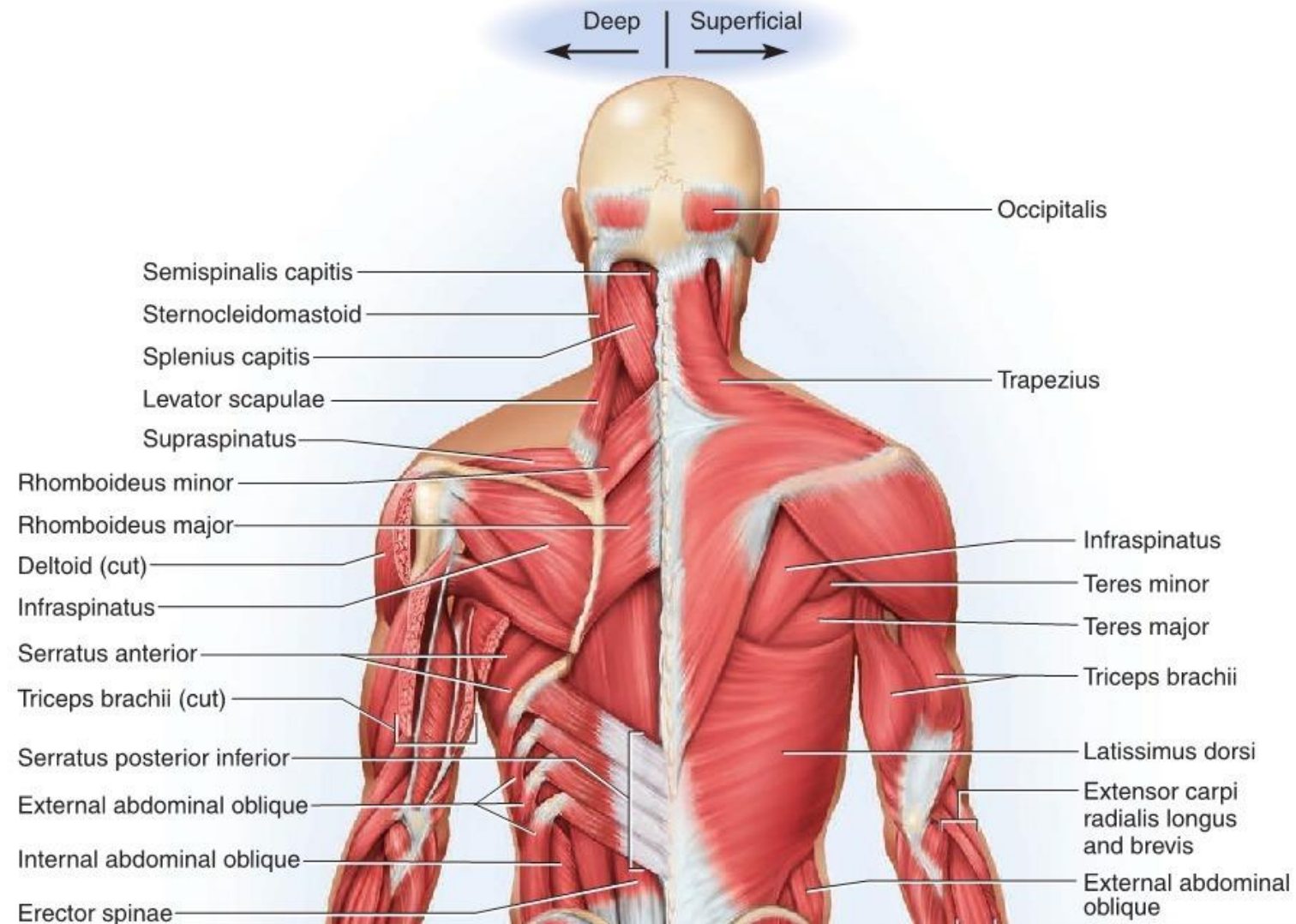


FIGURE 10.5 The Muscular System (continued).

(b) Posterior view



Note the muscle(s) each of the arrows touches

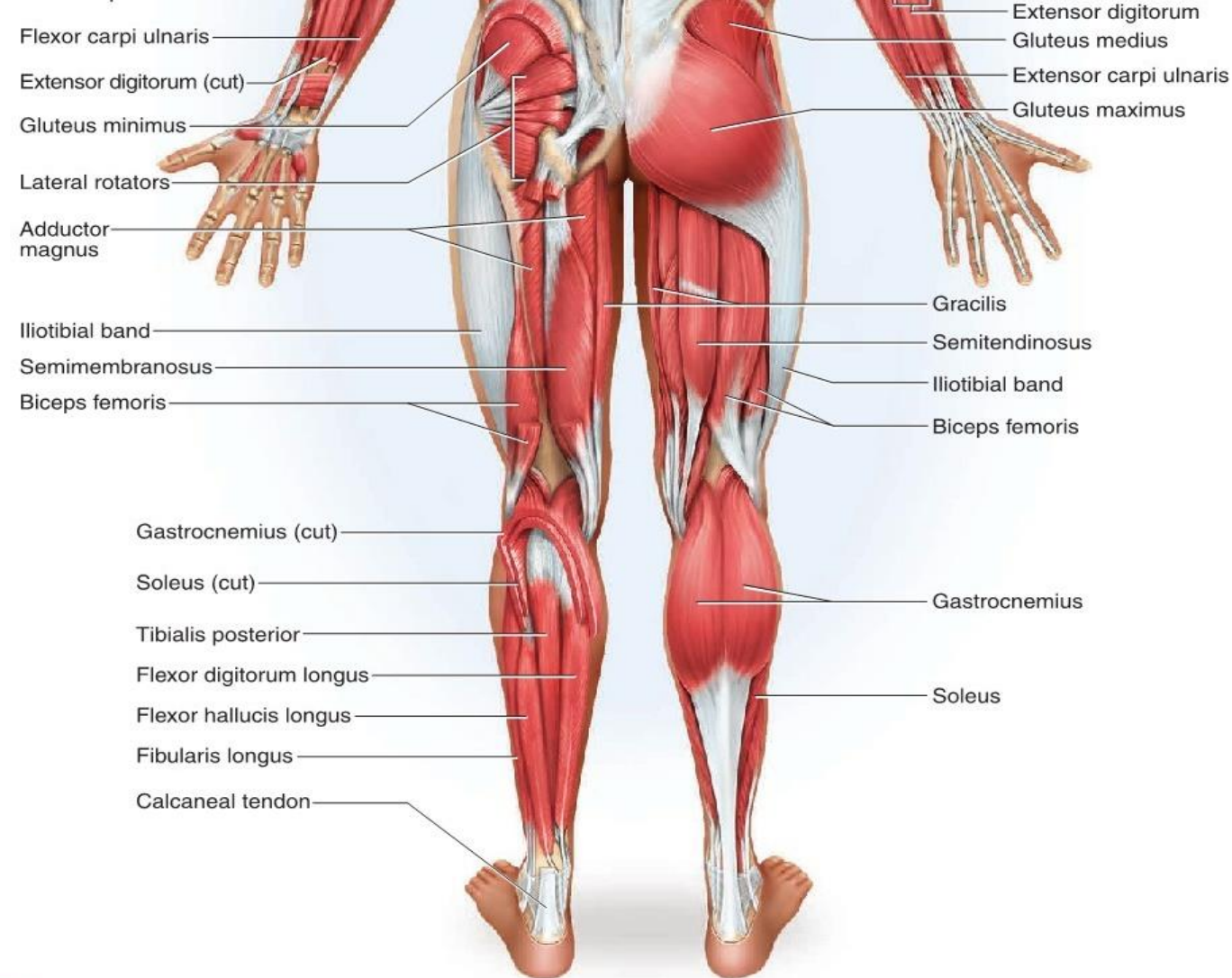


FIGURE 10.5 The Muscular System (continued).

(b) Posterior view

Note the muscle(s) each of the arrows touches



End of Lecture

Thank you