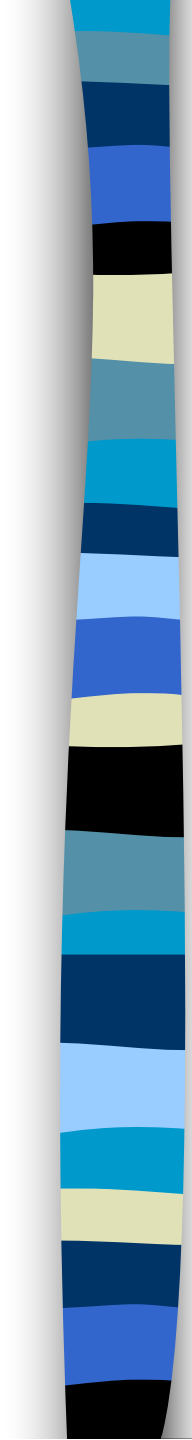


12a Kinesiology:

Muscle Names and Locations



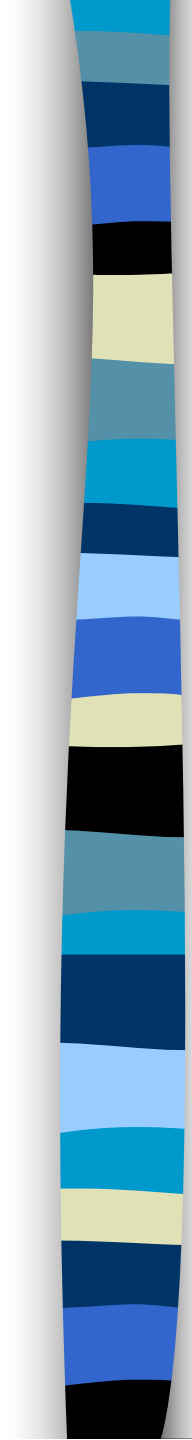


12a Kinesiology:

Muscle Names and Locations

Class Outline

5 minutes	Attendance, Breath of Arrival, and Reminders
15 minutes	Lecture: AOIs of the quadriceps
15 minutes	Lecture: Muscle names and locations - Anterior
10 minutes	Active study skills for posterior muscle names and locations
15 minutes	Lecture: AOIs of rectus abdominus and pectoralis major
60 minutes	Total



12a Kinesiology:

Muscle Names and Locations

Class Reminders

Quizzes and Exams:

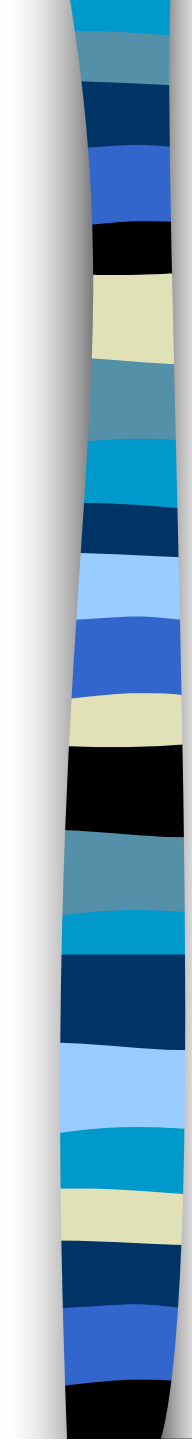
- 14a Kinesiology Quiz
 - Tibialis anterior, fibularis longus and brevis, quads, rectus abdominis, and pec. major
- 17a Quiz
- 18a Kinesiology Quiz
- 19a Quiz
- 21a Exam (100 questions in 80 minutes)

Assignments:

- 17a Review Questions (A: 131-140)

Preparation for upcoming classes:

- 13a A&P: Skeletal System - Cells, Tissues, and Bone Shapes
 - Trail Guide: pectoralis major & rectus abdominis
 - Salvo: Pages 412-415
 - Packet E: 15-16
 - RQ Packet A-135
- 13b Kinesiology: AOIs - Anterior Lower Body and Upper Torso



Classroom Rules

Punctuality - everybody's time is precious

- Be ready to learn at the start of class; we'll have you out of here on time
- Tardiness: arriving late, returning late after breaks, leaving during class, leaving early

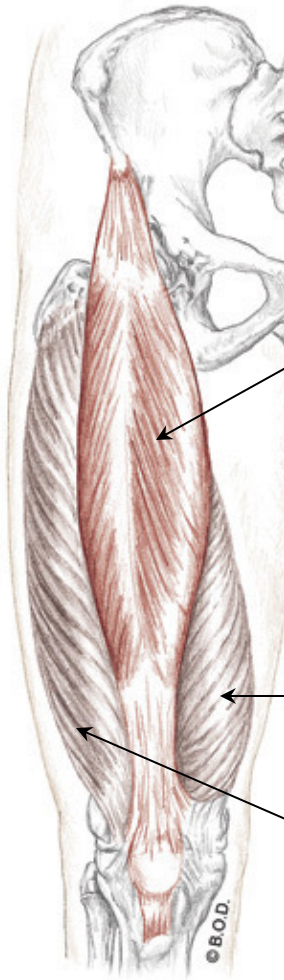
The following are not allowed:

- Bare feet
- Side talking
- Lying down
- Inappropriate clothing
- Food or drink except water
- Phones that are visible in the classroom, bathrooms, or internship

You will receive one verbal warning, then you'll have to leave the room.

Quadriceps Femoris

Trail Guide, Page 306



Anterior View

The **quads** primarily extend the tibiofemoral joint.

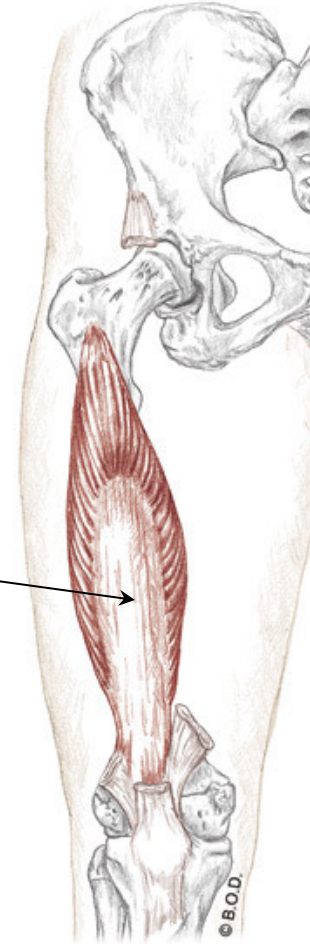
Rectus femoris is cylindrical, superficial, and the only quadricep muscle that also crosses the hip joint.

Vastus intermedius is deep to the rectus femoris.

Vastus medialis forms a teardrop shape at the distal portion of the medial thigh.

Vastus lateralis is the sole muscle of the lateral thigh.

When do you use the quads?



Anterior View

Actions of quadriceps femoris



Knee extension



Hip flexion

Quadriceps Femoris, page 306

A All:
Extend the knee (tibiofemoral joint)

Rectus femoris:
Flex the hip (coxal joint)

O *Rectus femoris:*
Anterior inferior iliac spine (AIIS)

Vastus medialis:
Medial lip of linea aspera

Vastus lateralis:
Lateral lip of linea aspera
Gluteal tuberosity
Greater trochanter

Vastus intermedius:
Anterior and lateral shaft of the femur

I Tibial tuberosity
(via the patella and patellar ligament)



Anterior View

Quadriceps Femoris, page 306

A All:
Extend the knee (tibiofemoral joint)

Rectus femoris:
Flex the hip (coxal joint)

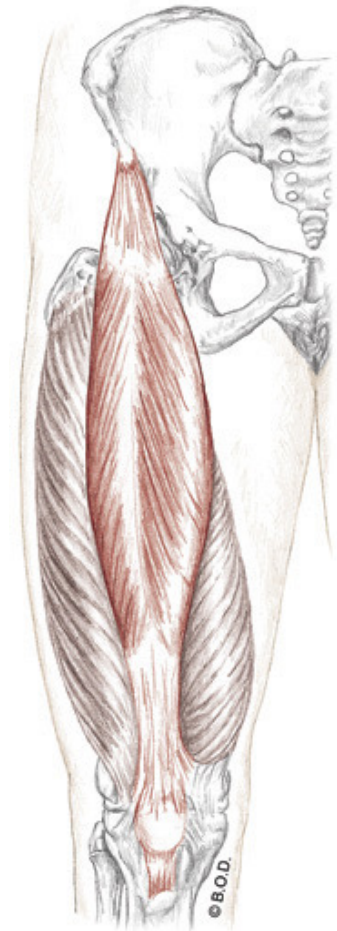
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Medial lip of linea aspera

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Anterior View

Quadriceps Femoris, page 306

A All:
Extend the knee (tibiofemoral joint)

Rectus femoris:
Flex the hip (coxal joint)

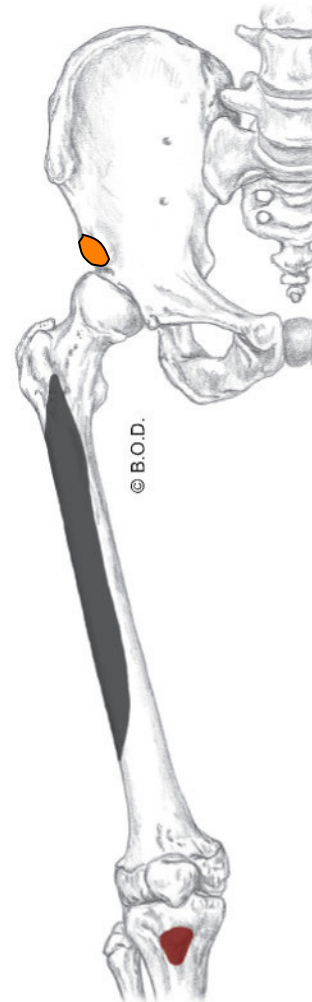
O *Rectus femoris:*
Anterior inferior iliac spine (AIIS)

Vastus medialis:
Medial lip of linea aspera

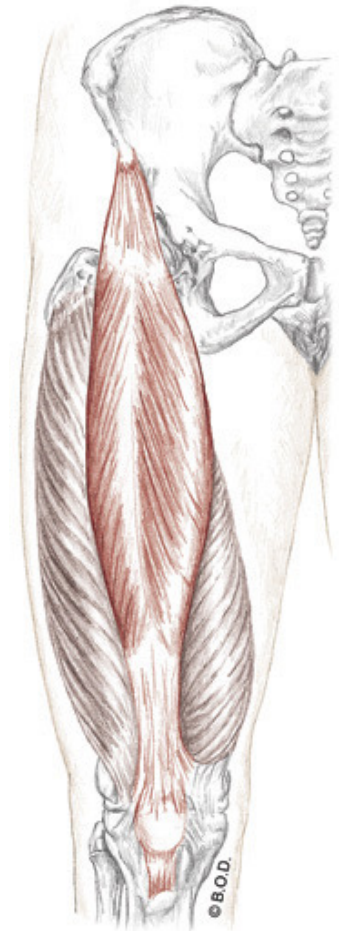
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Gluteal tuberosity
Greater trochanter

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Anterior View



Anterior View

Quadriceps Femoris, page 306

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Extend the knee (tibiofemoral joint)

Rectus femoris:
Flex the hip (coxal joint)

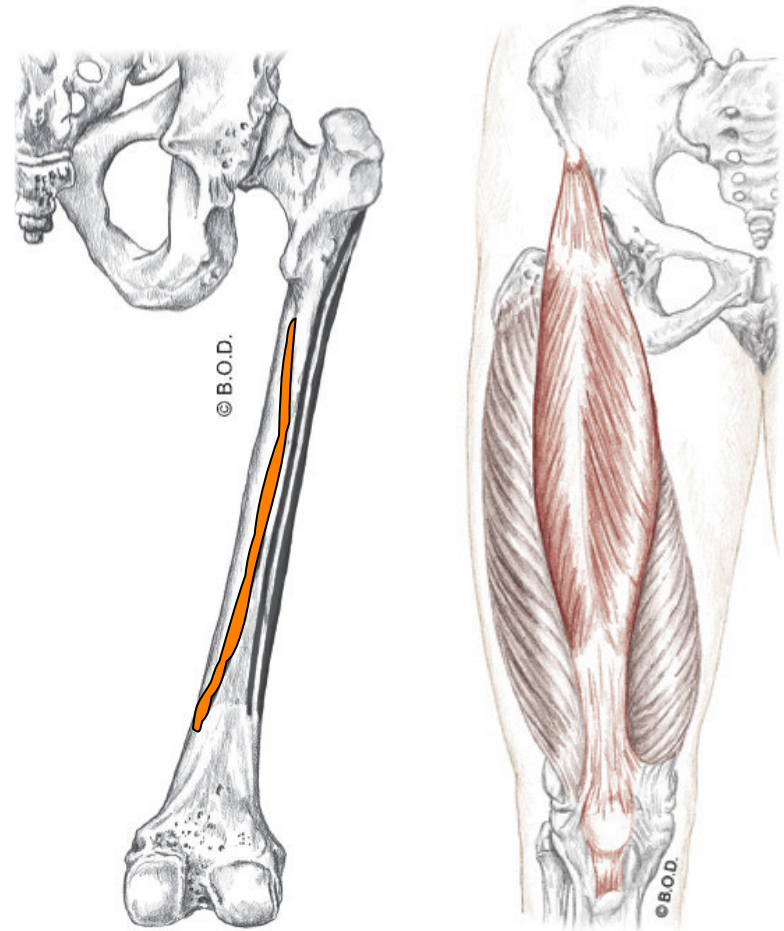
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Vastus intermedius:
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Posterior View

Anterior View

Quadriceps Femoris, page 306

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Extend the knee (tibiofemoral joint)

Rectus femoris:
Flex the hip (coxal joint)

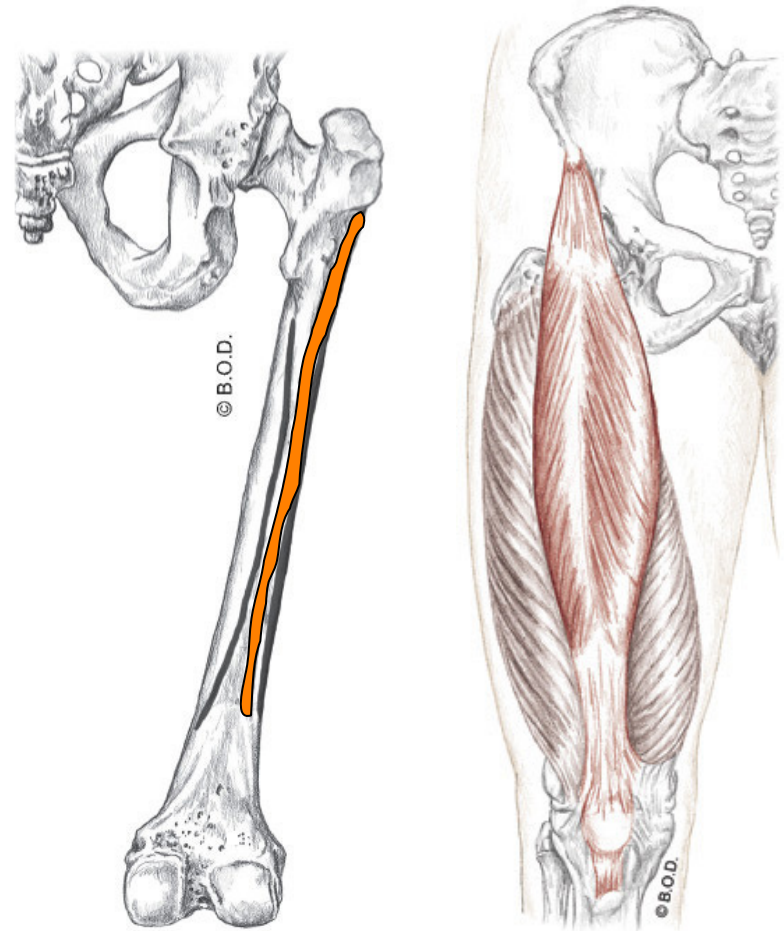
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Posterior View

Anterior View

Quadriceps Femoris, page 306

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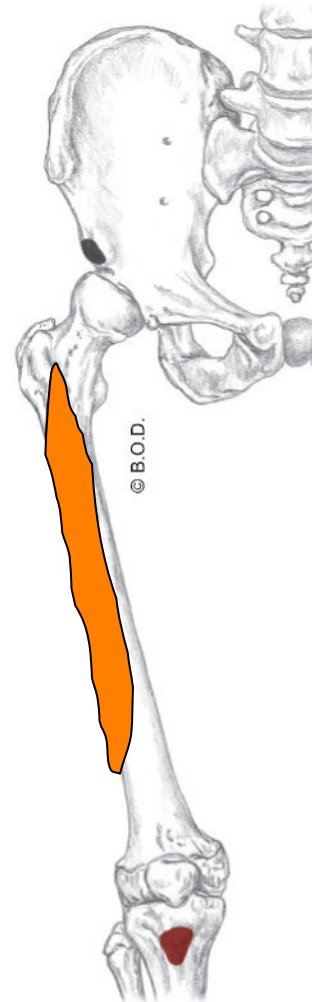
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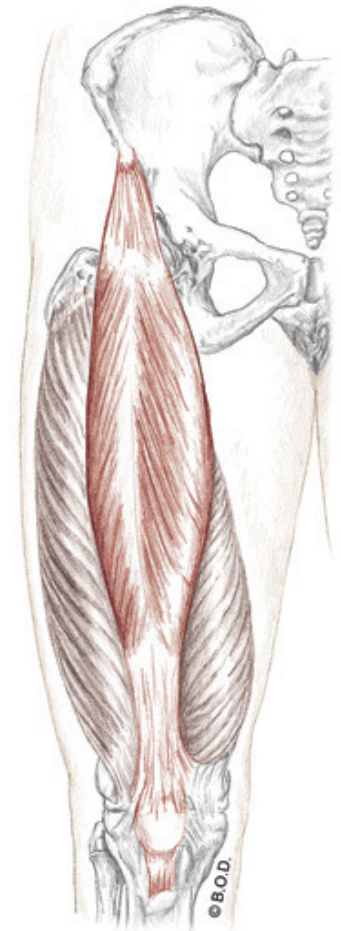
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Anterior View



Anterior View

Quadriceps Femoris, page 306

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Rectus femoris:
Flex the hip (coxal joint)

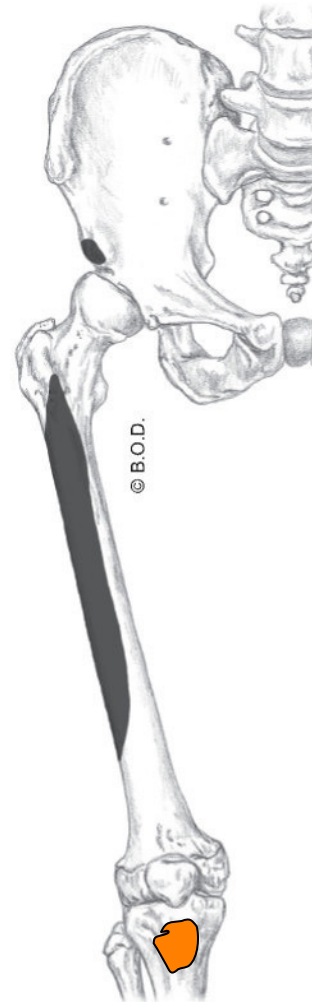
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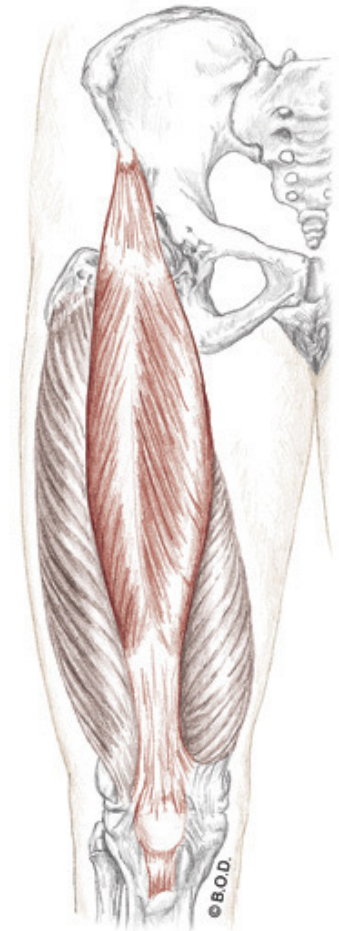
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Greater trochanter

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Anterior and lateral shaft of the femur

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Anterior View



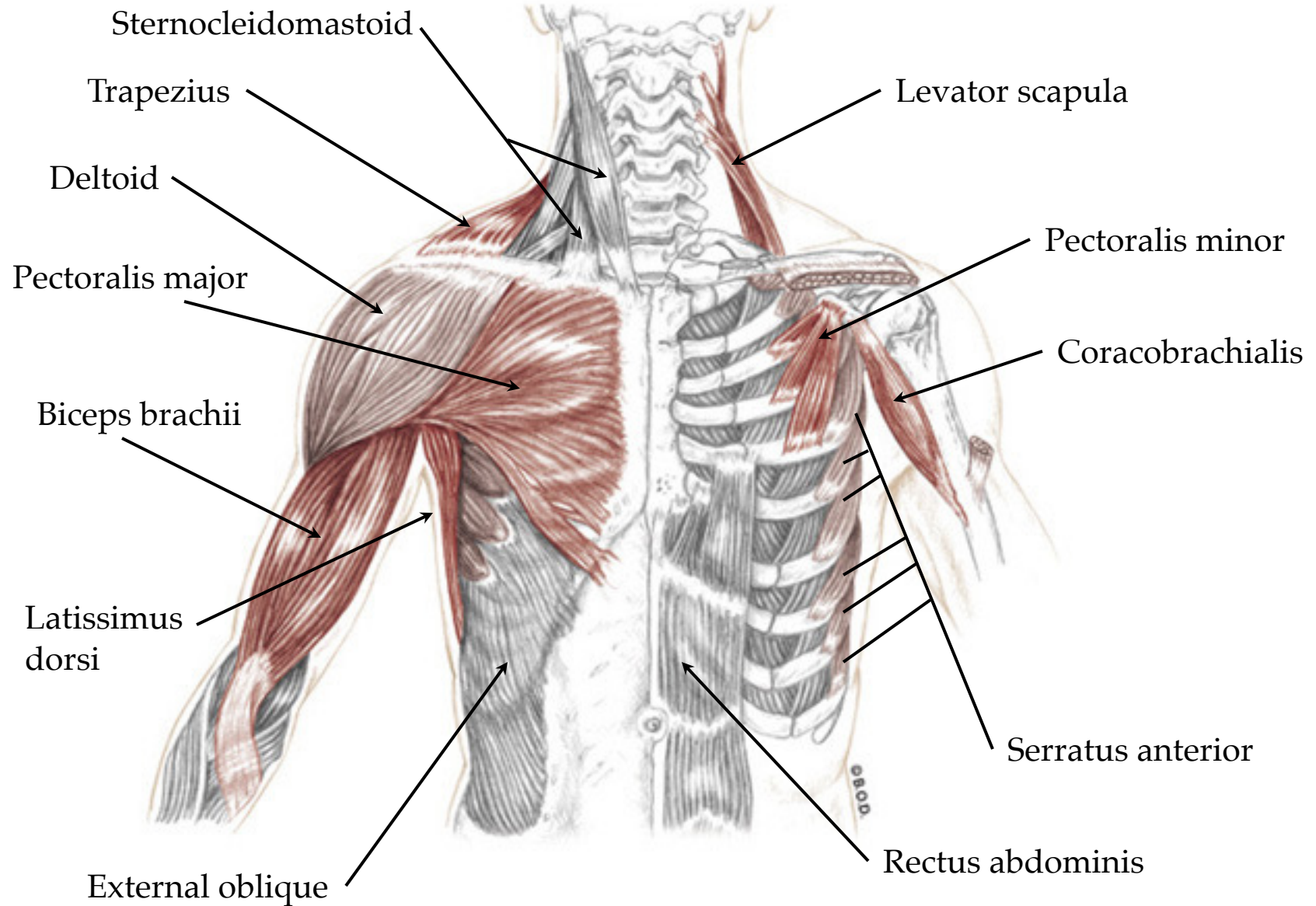
Anterior View

12a Kinesiology:

Muscle Names and Locations

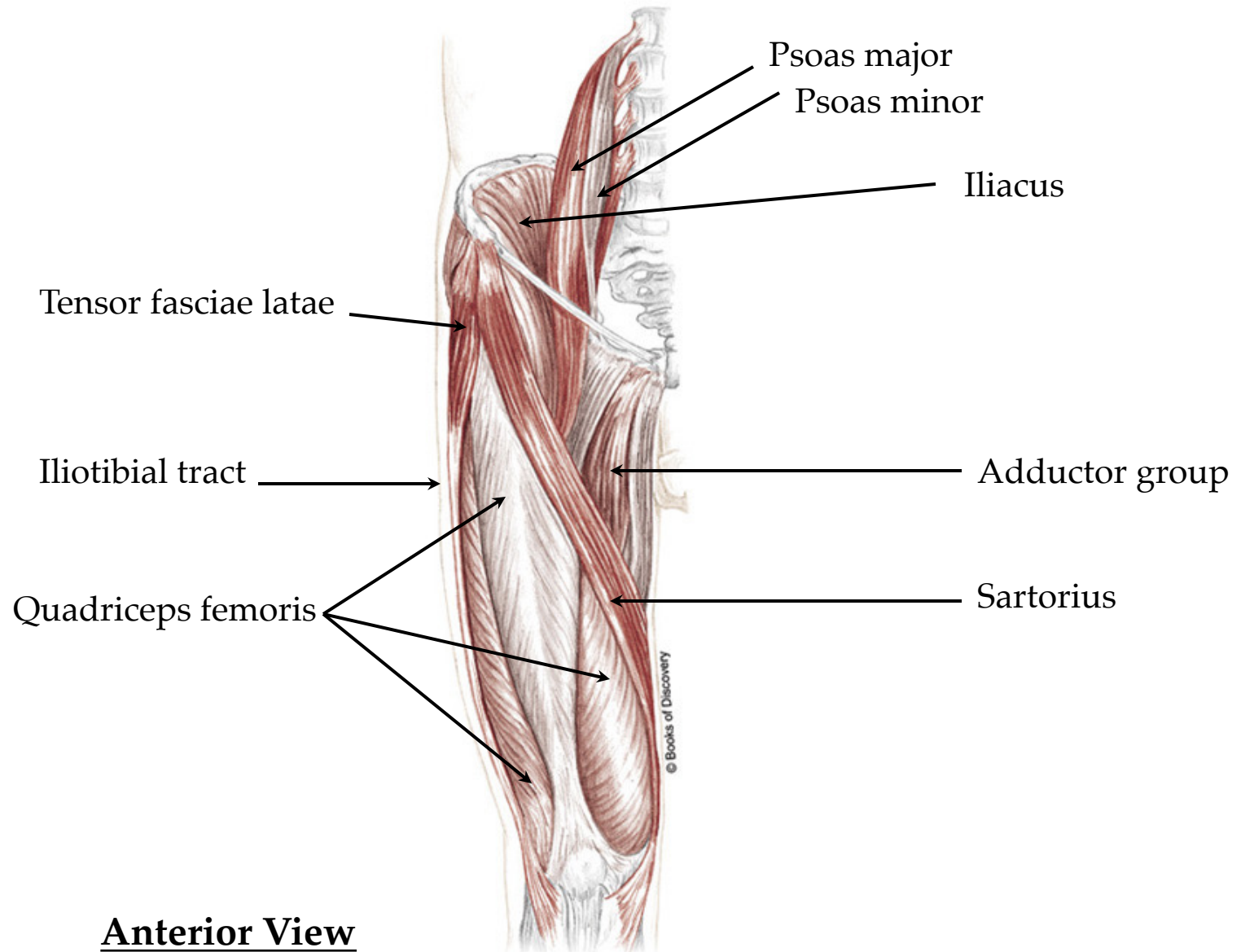


Trail Guide, Page 62

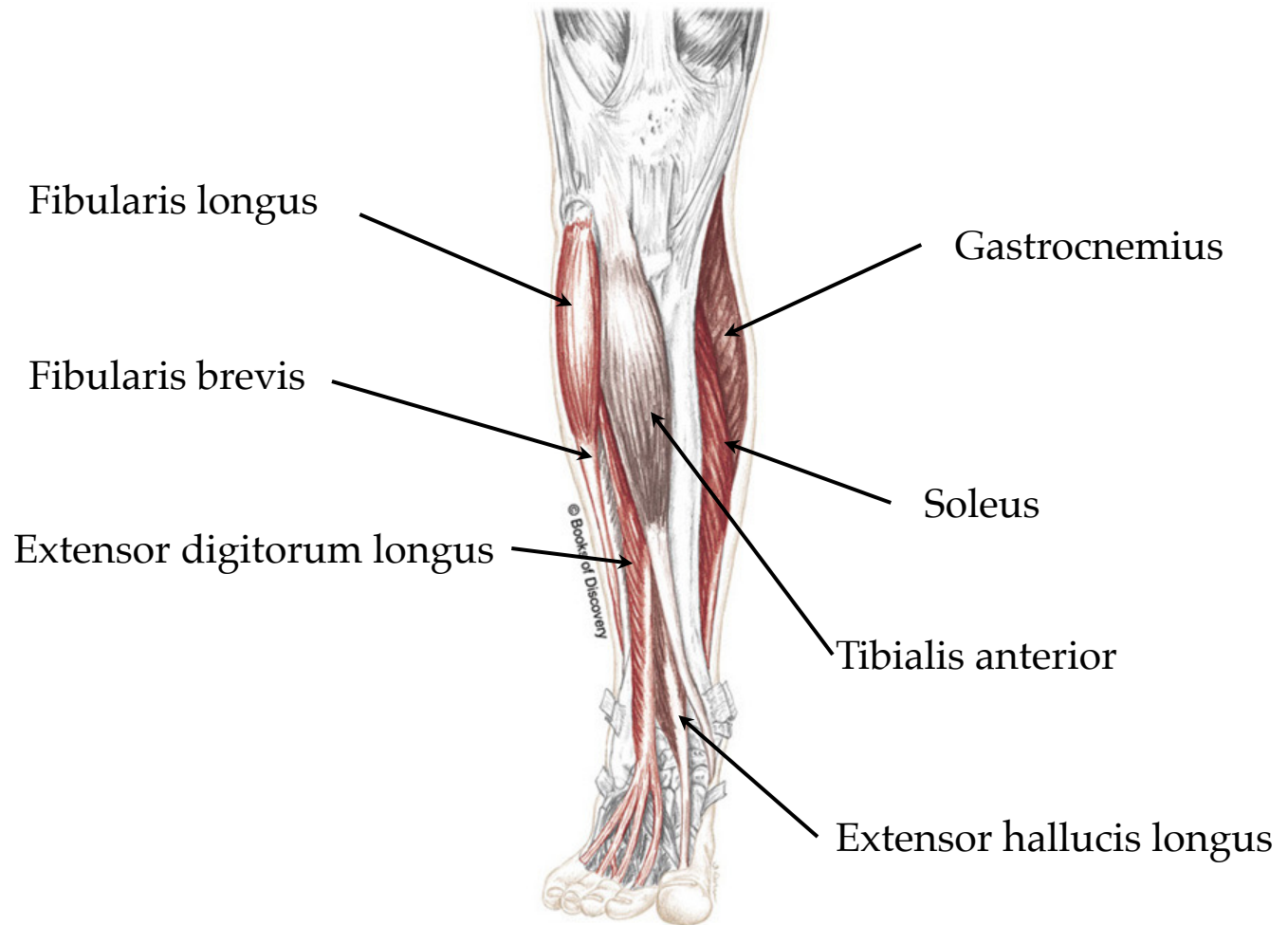


Anterior View

Trail Guide, Page 296

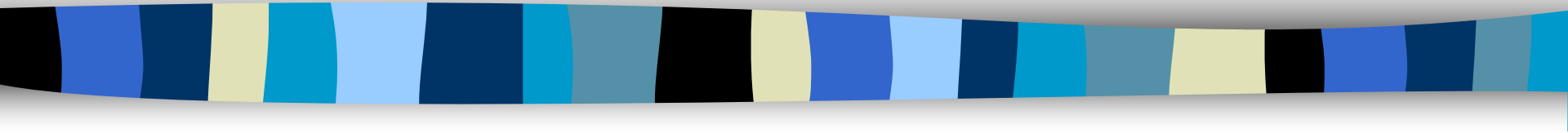


Trail Guide, Page 367



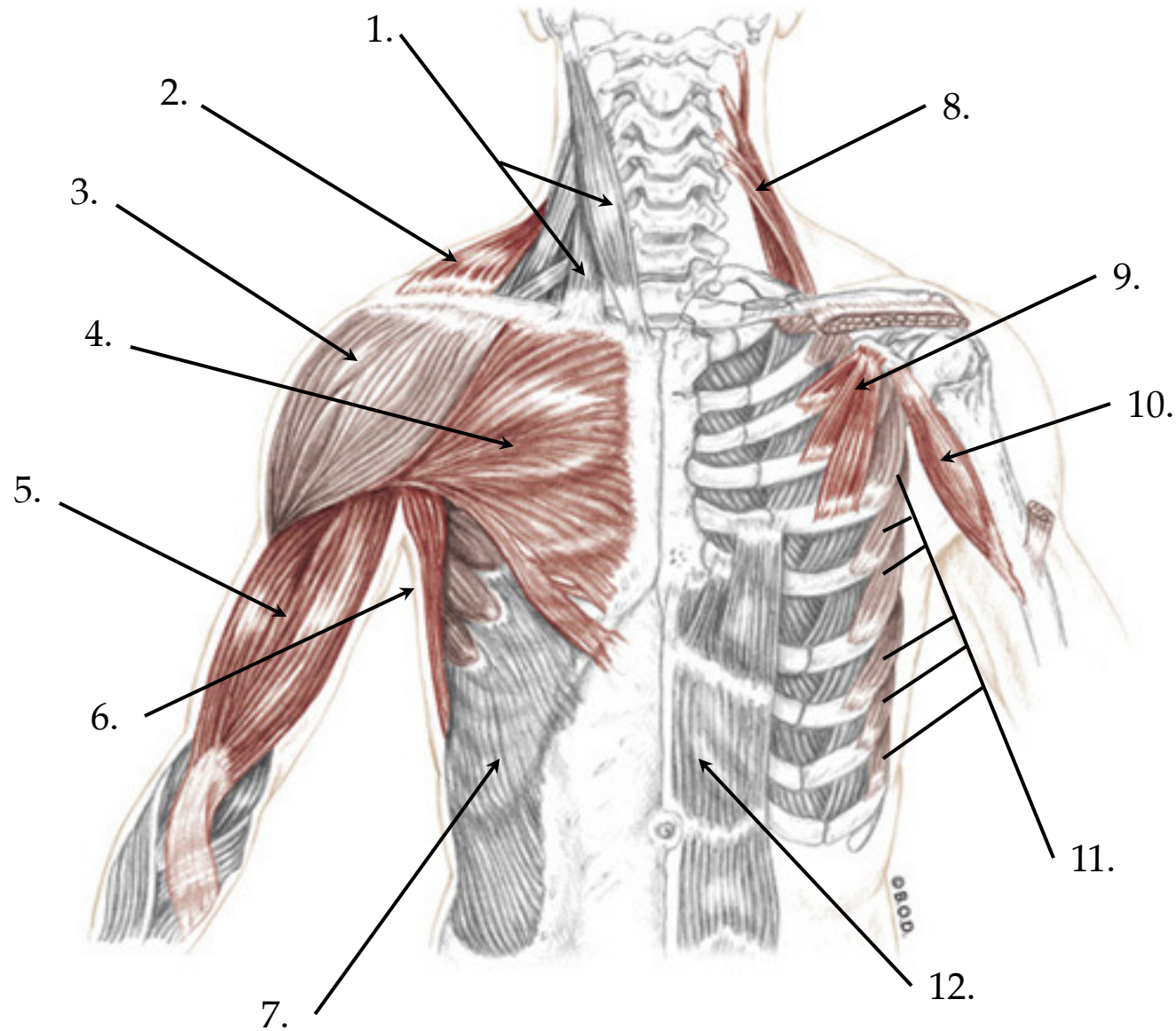
Anterior View

Review



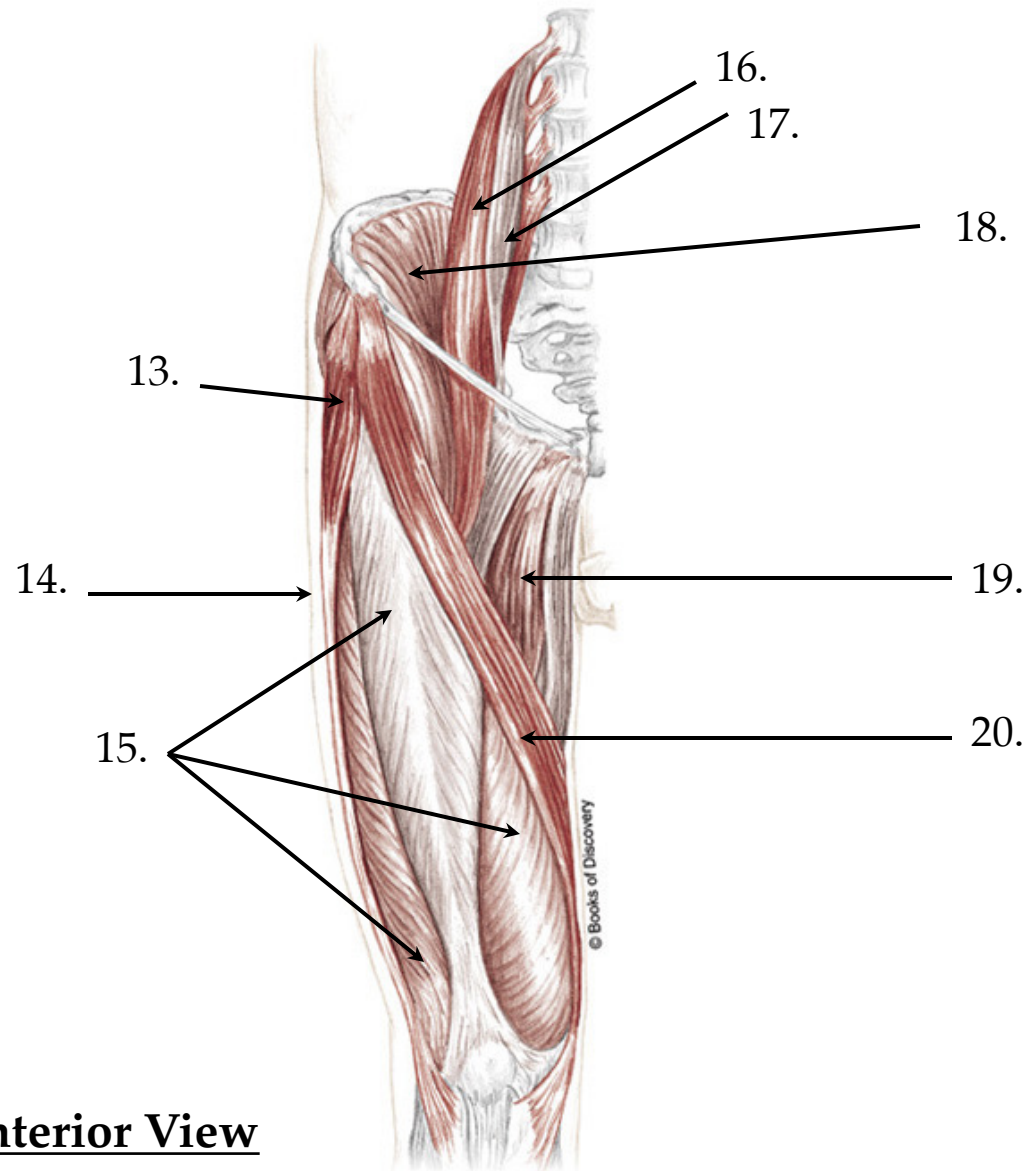
Write the name of the muscle for each number

Trail Guide, Page 62



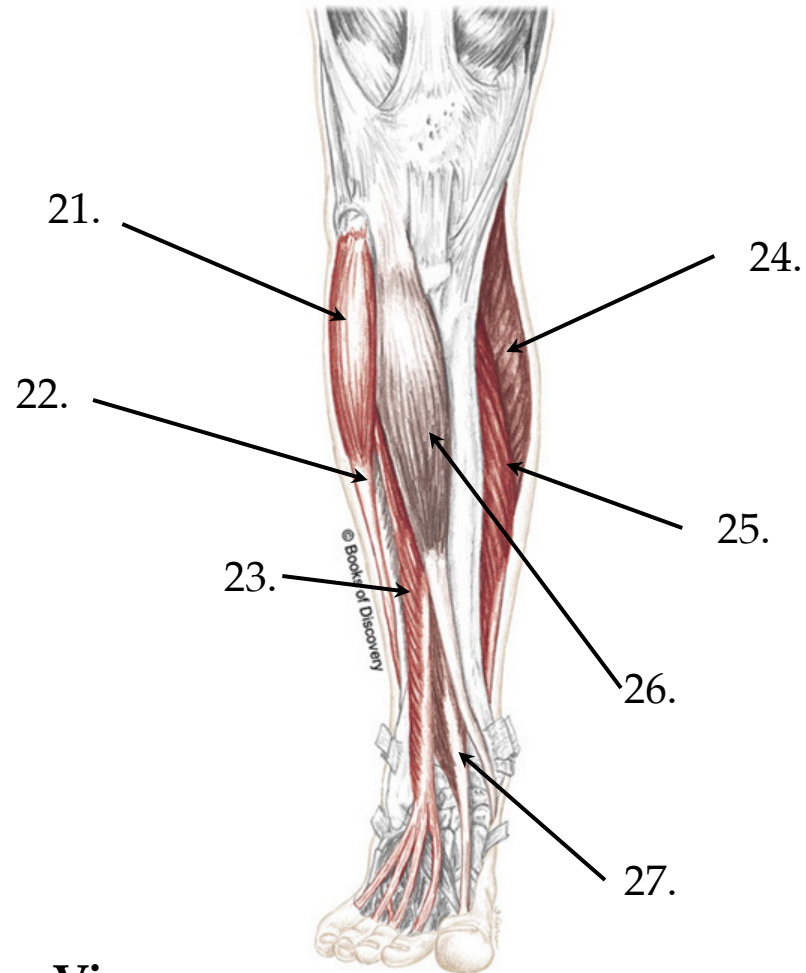
Anterior View

Trail Guide, Page 296



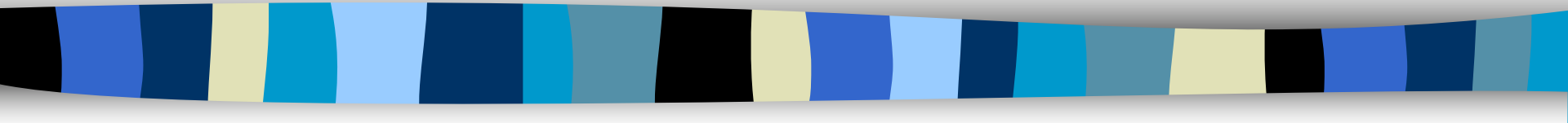
Anterior View

Trail Guide, Page 367

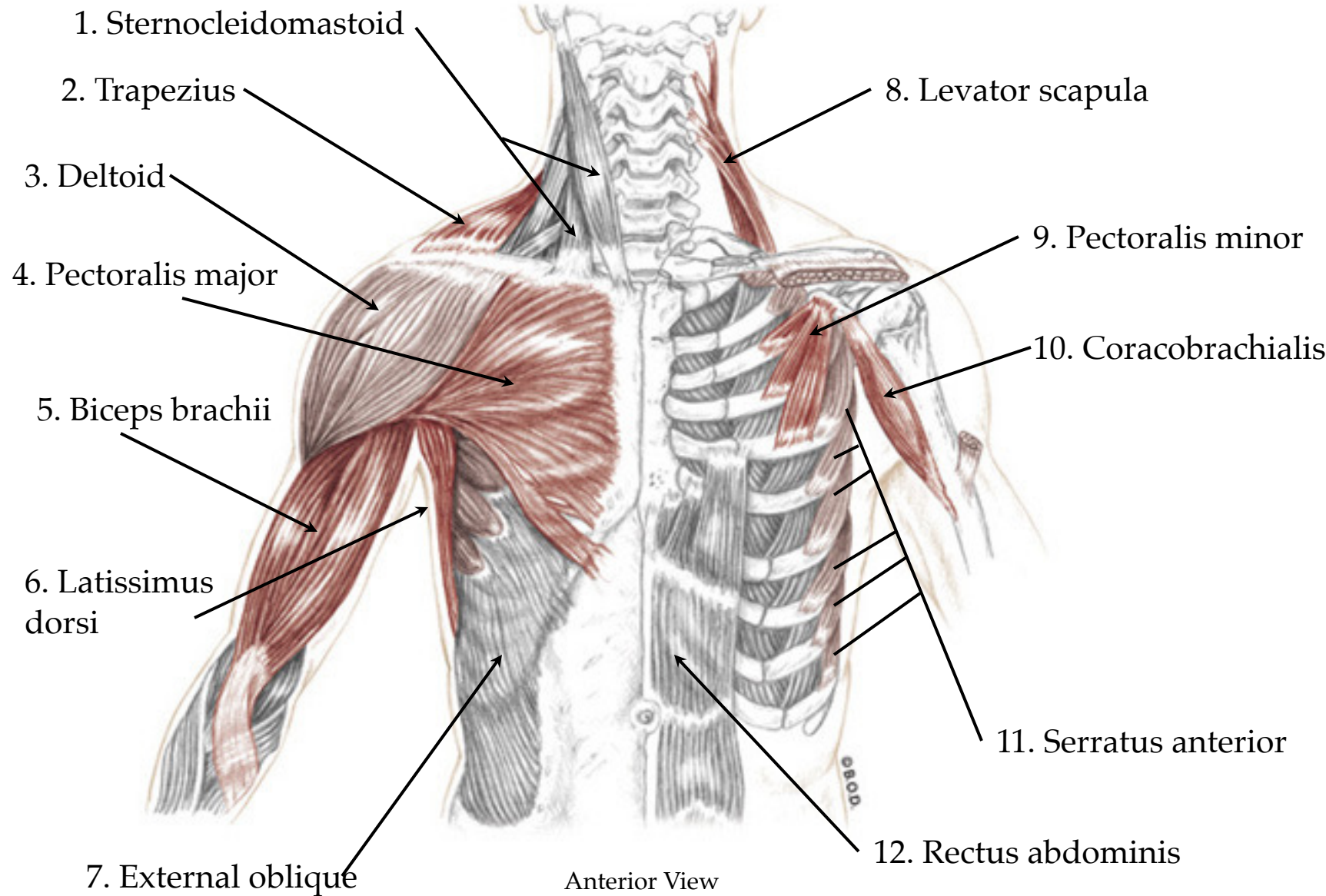


Anterior View

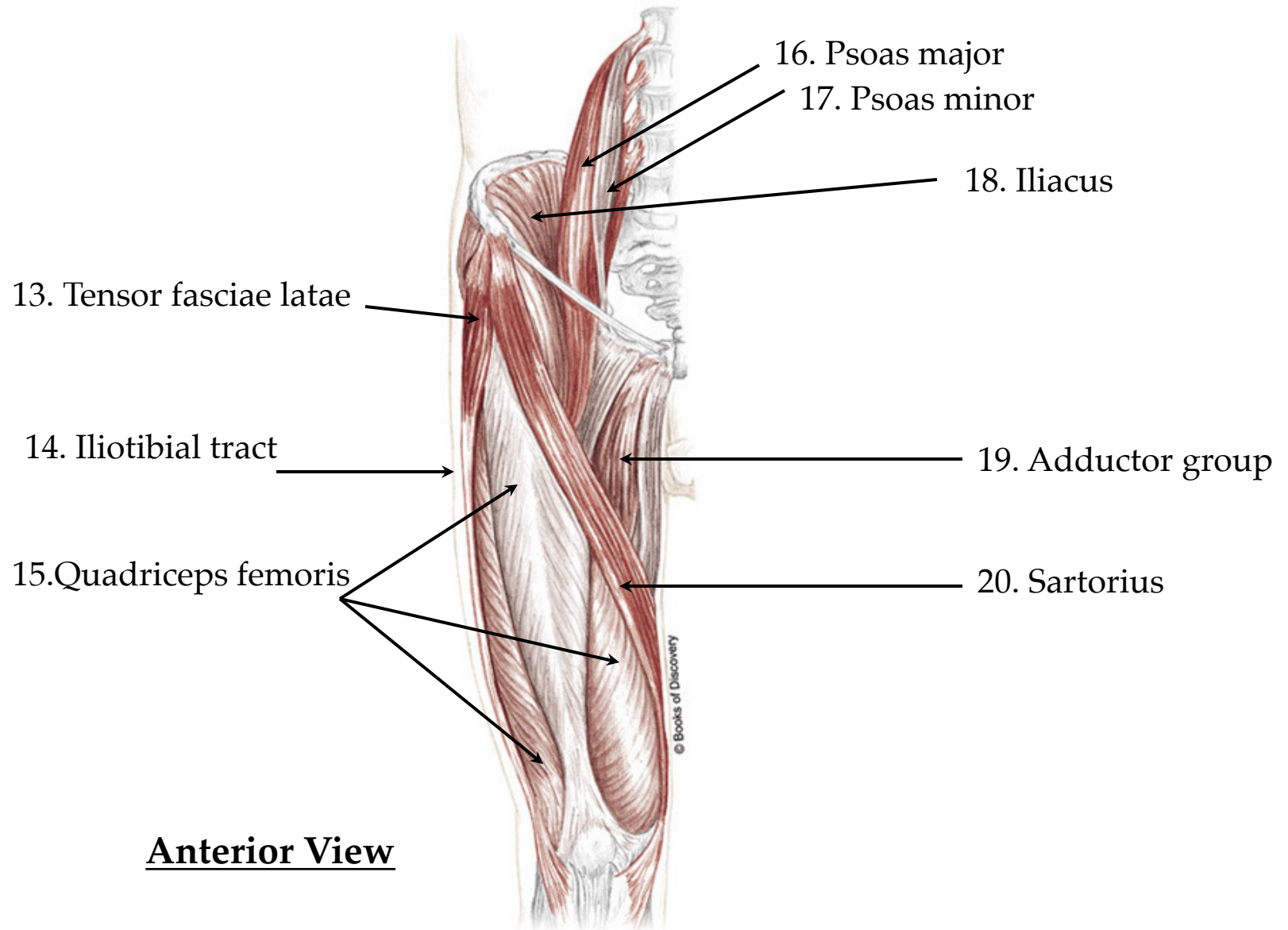
Check your answers



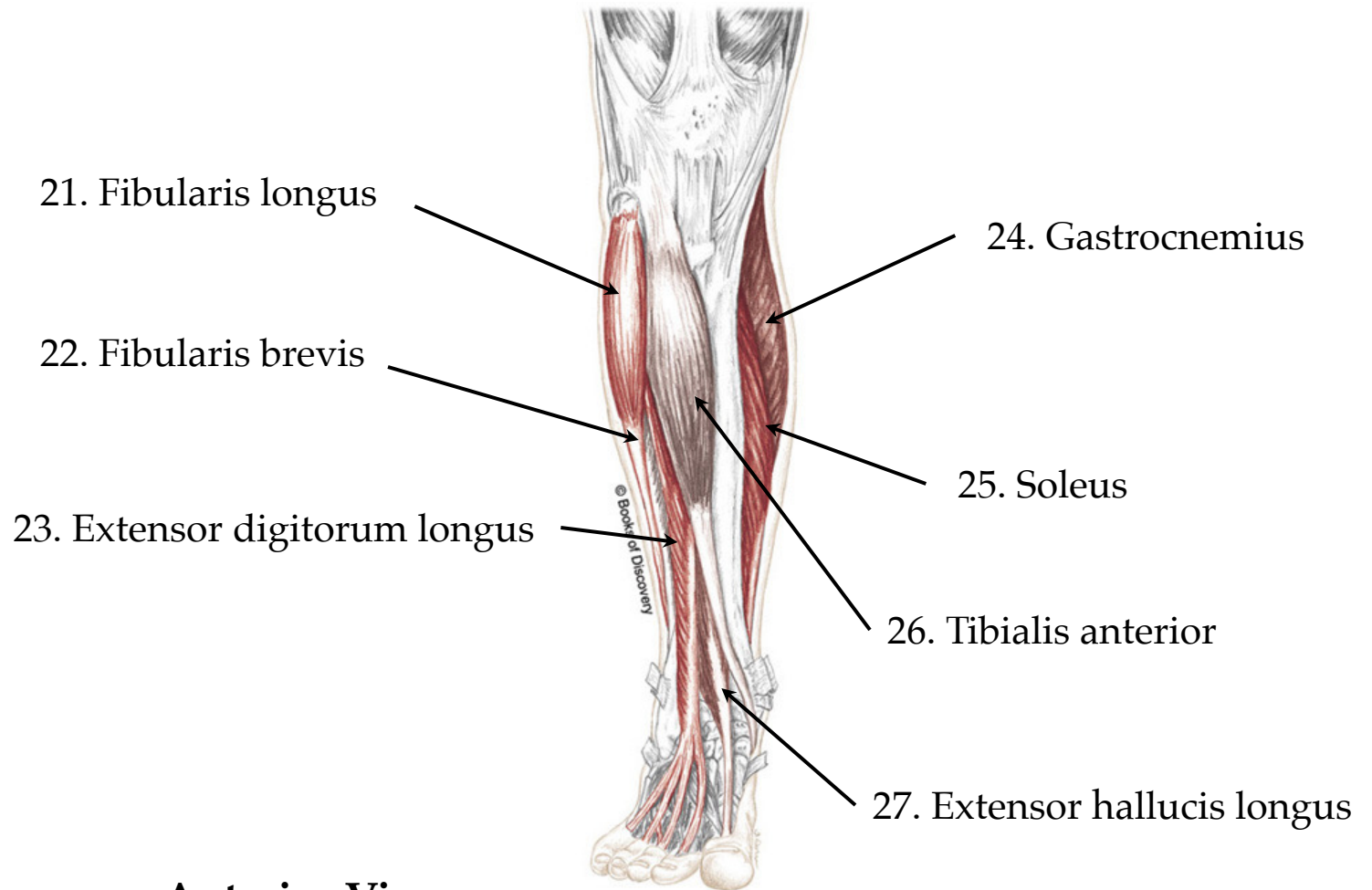
Trail Guide, Page 62



Trail Guide, Page 296

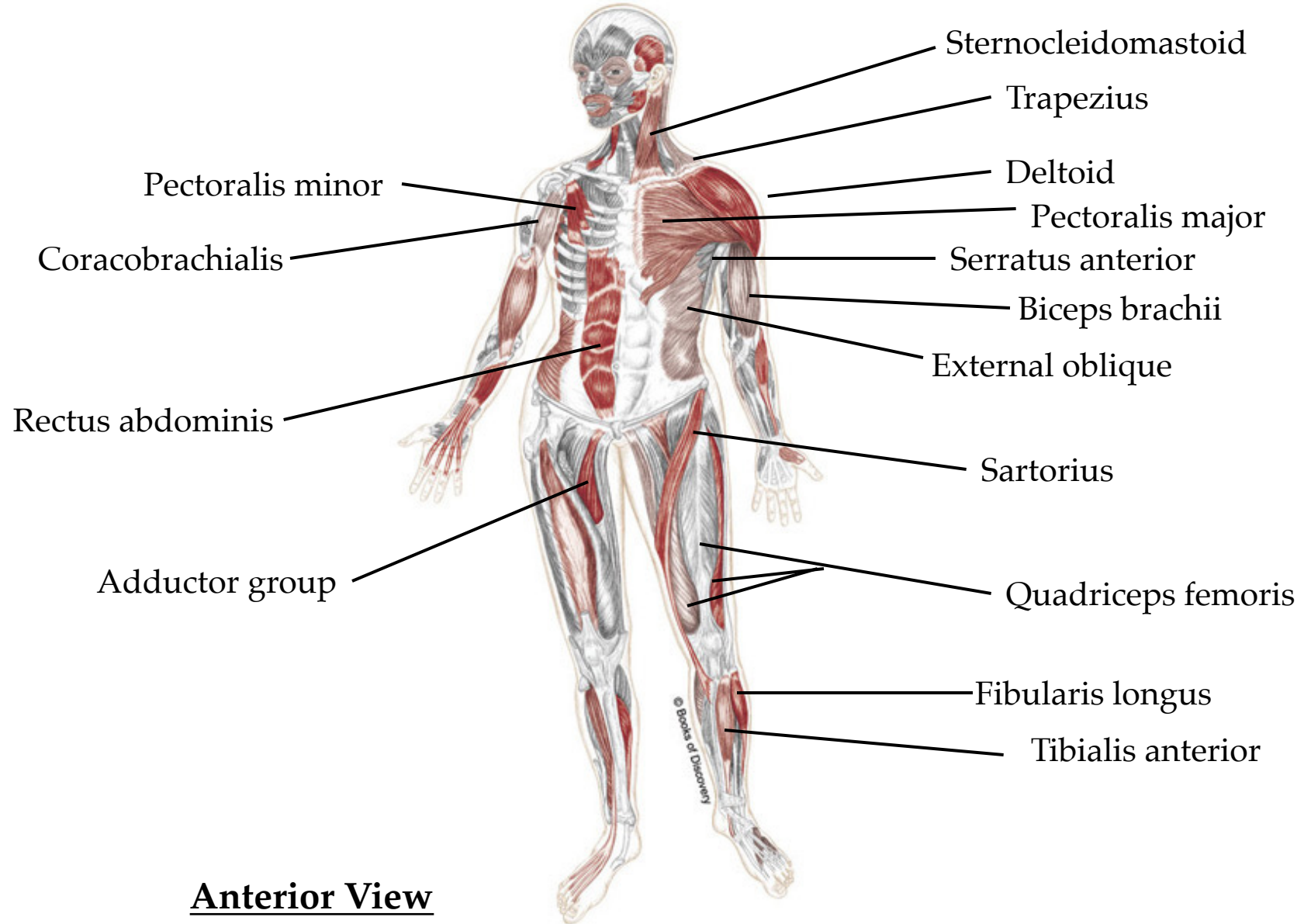


Trail Guide, Page 367

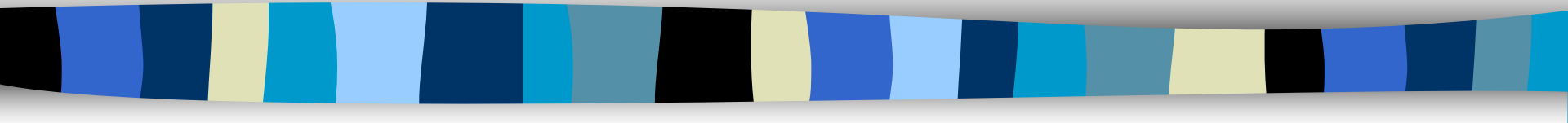


Anterior View

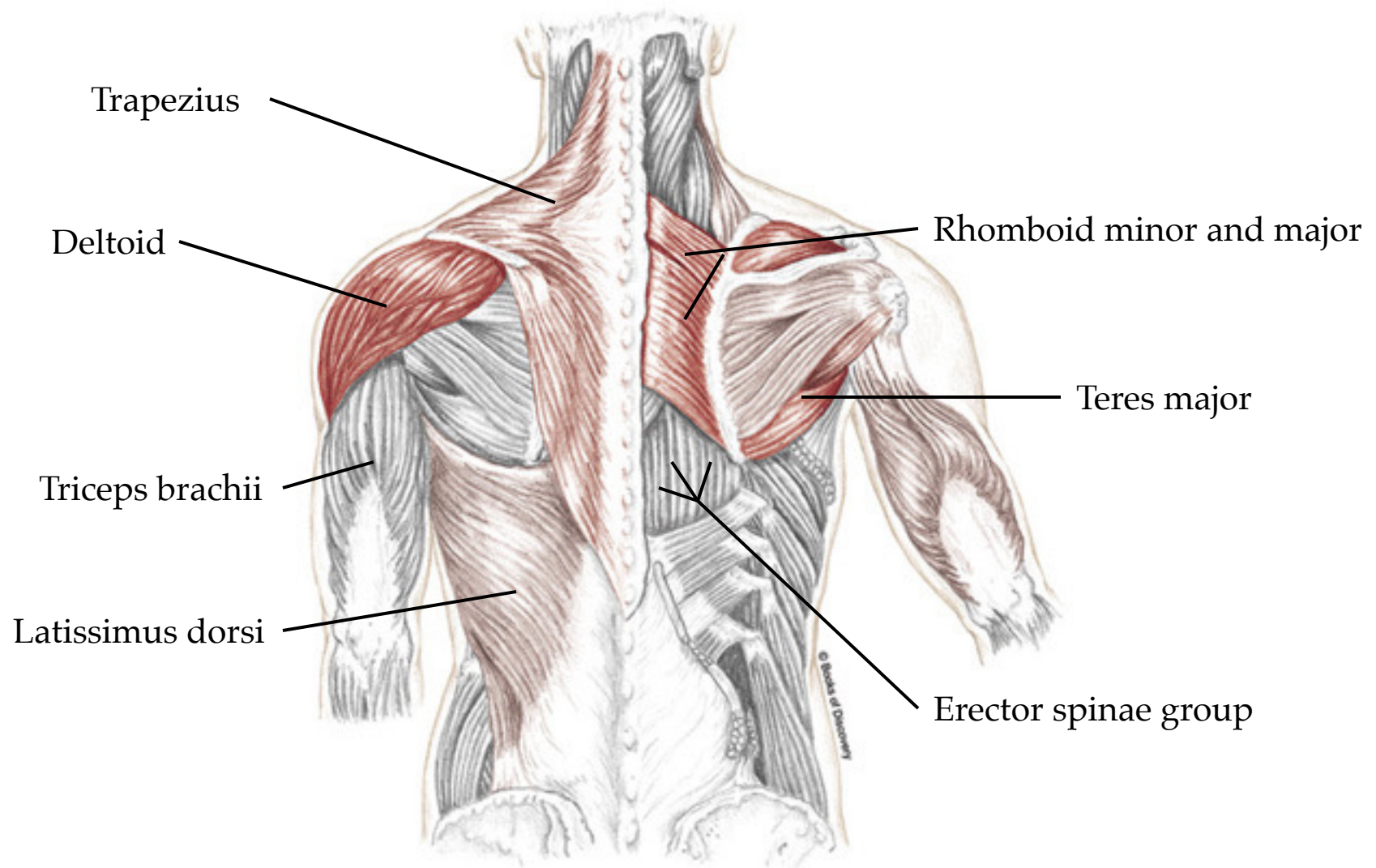
Trail Guide, Page 35



Posterior Muscles

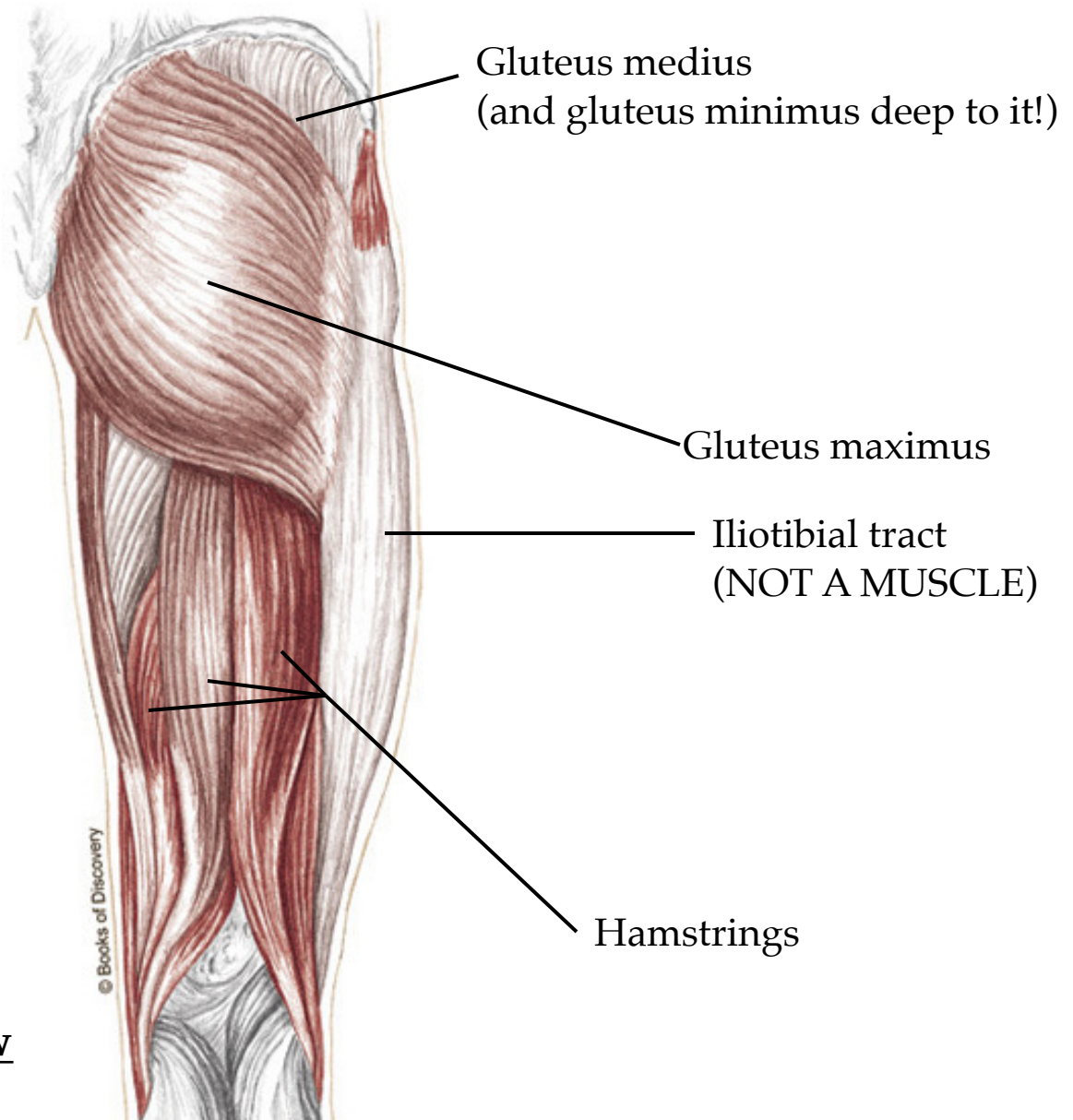


Trail Guide, Page 61



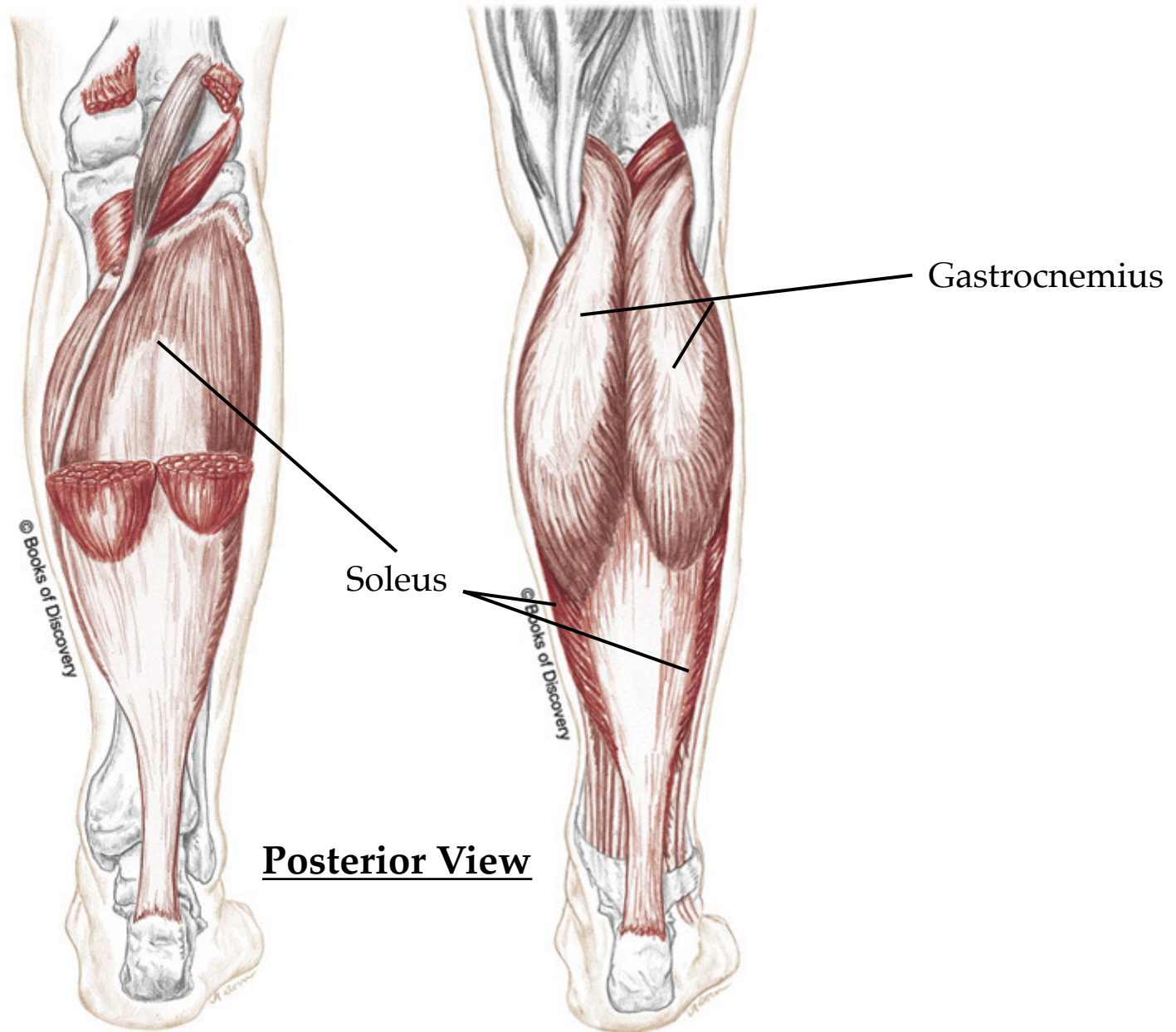
Posterior View

Trail Guide, Page 297

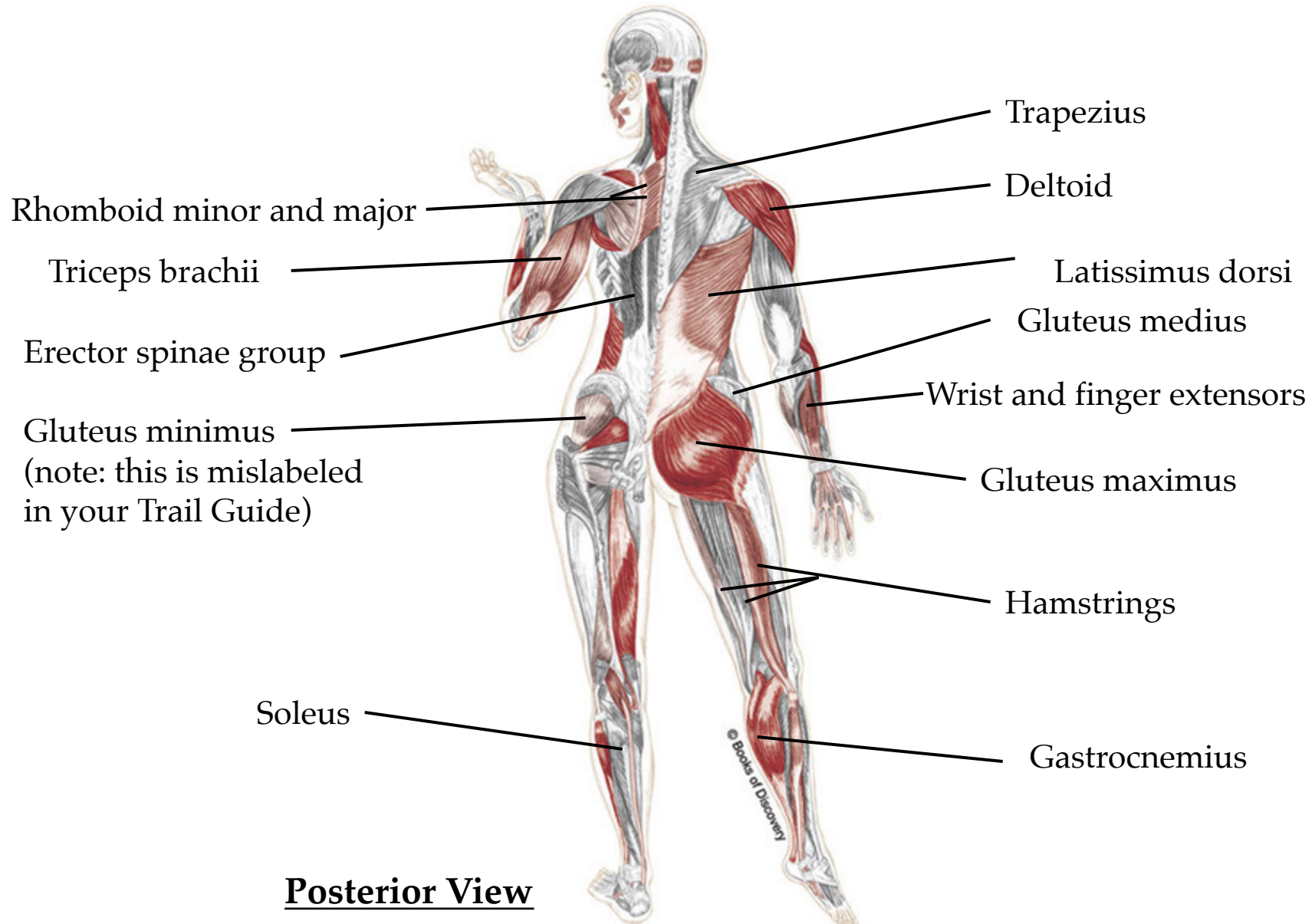


Posterior View

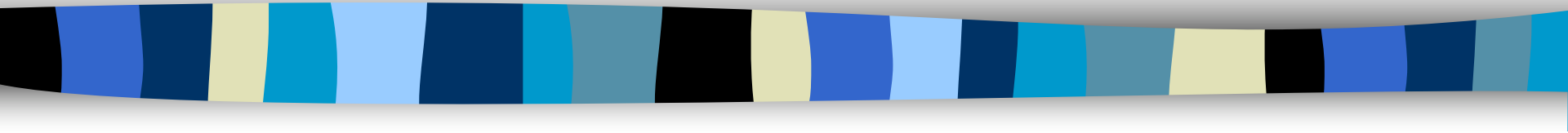
Trail Guide, Page 366



Trail Guide, Page 36

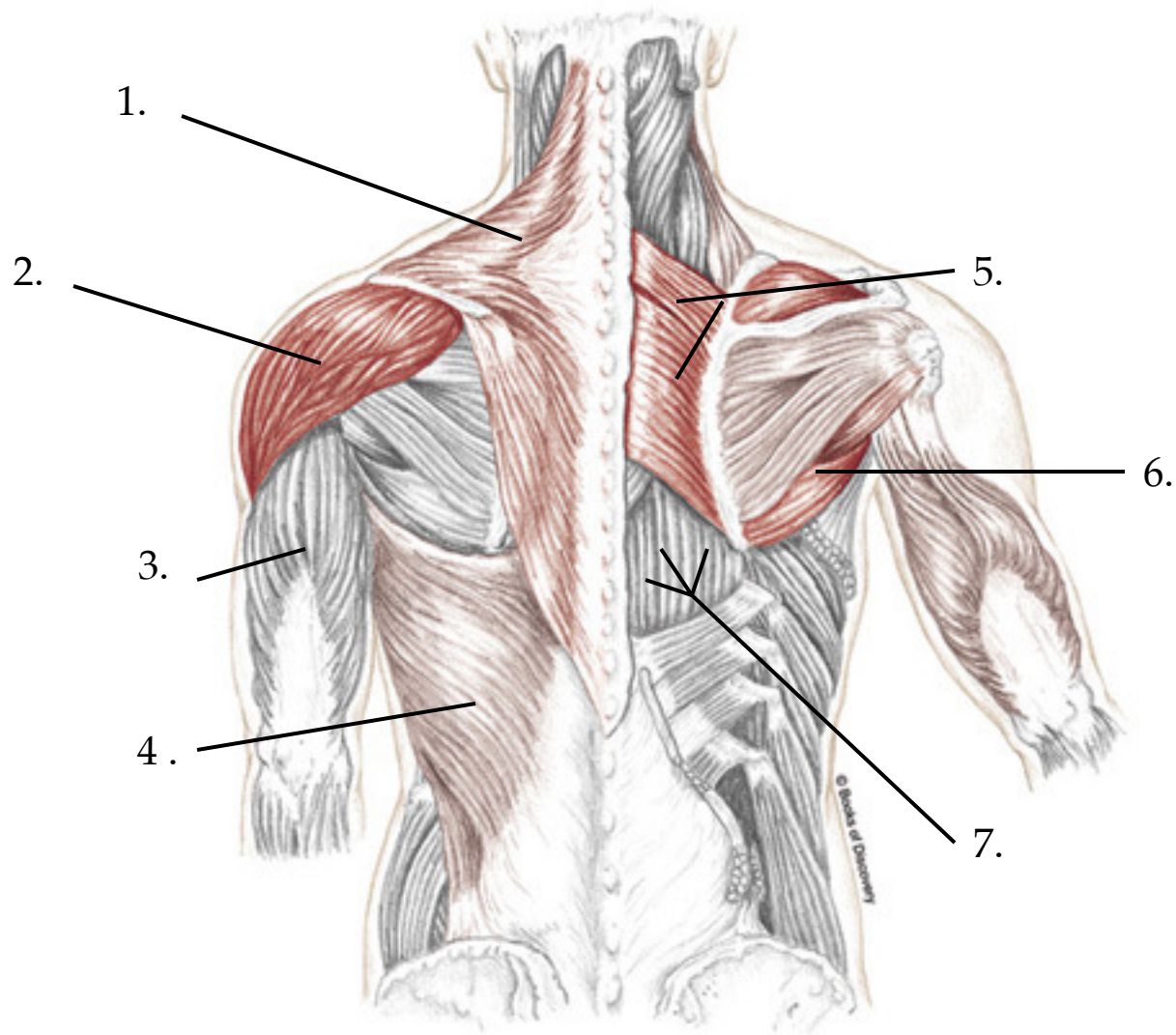


Review



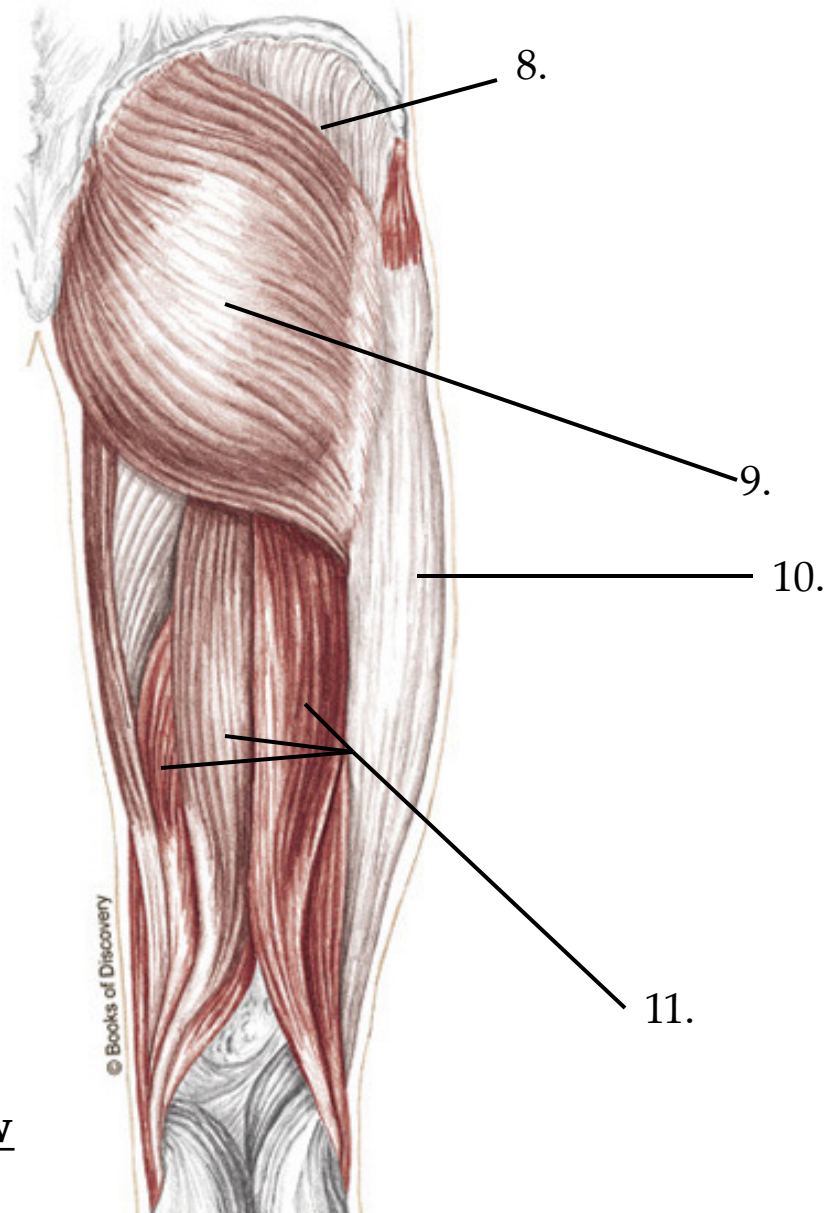
Write the name of the muscle for each number

Trail Guide, Page 61



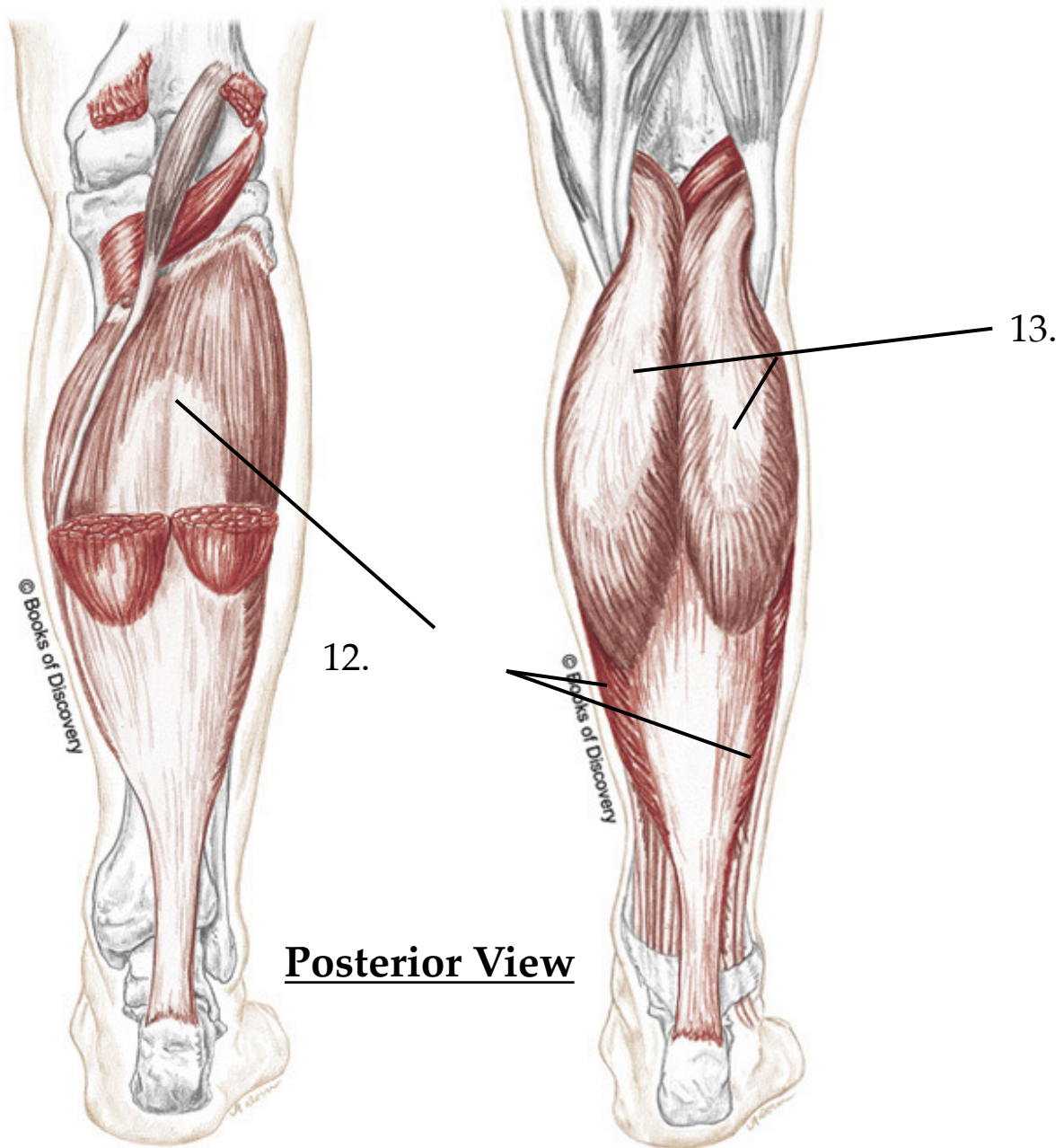
Posterior View

Trail Guide, Page 297

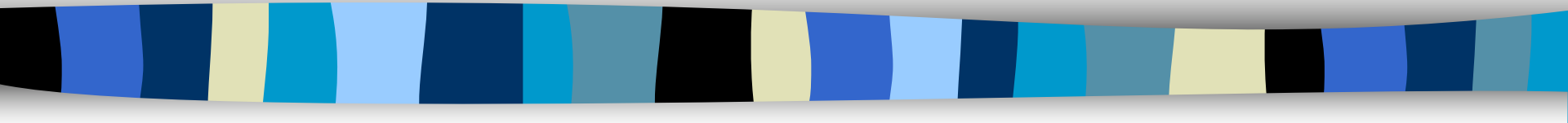


Posterior View

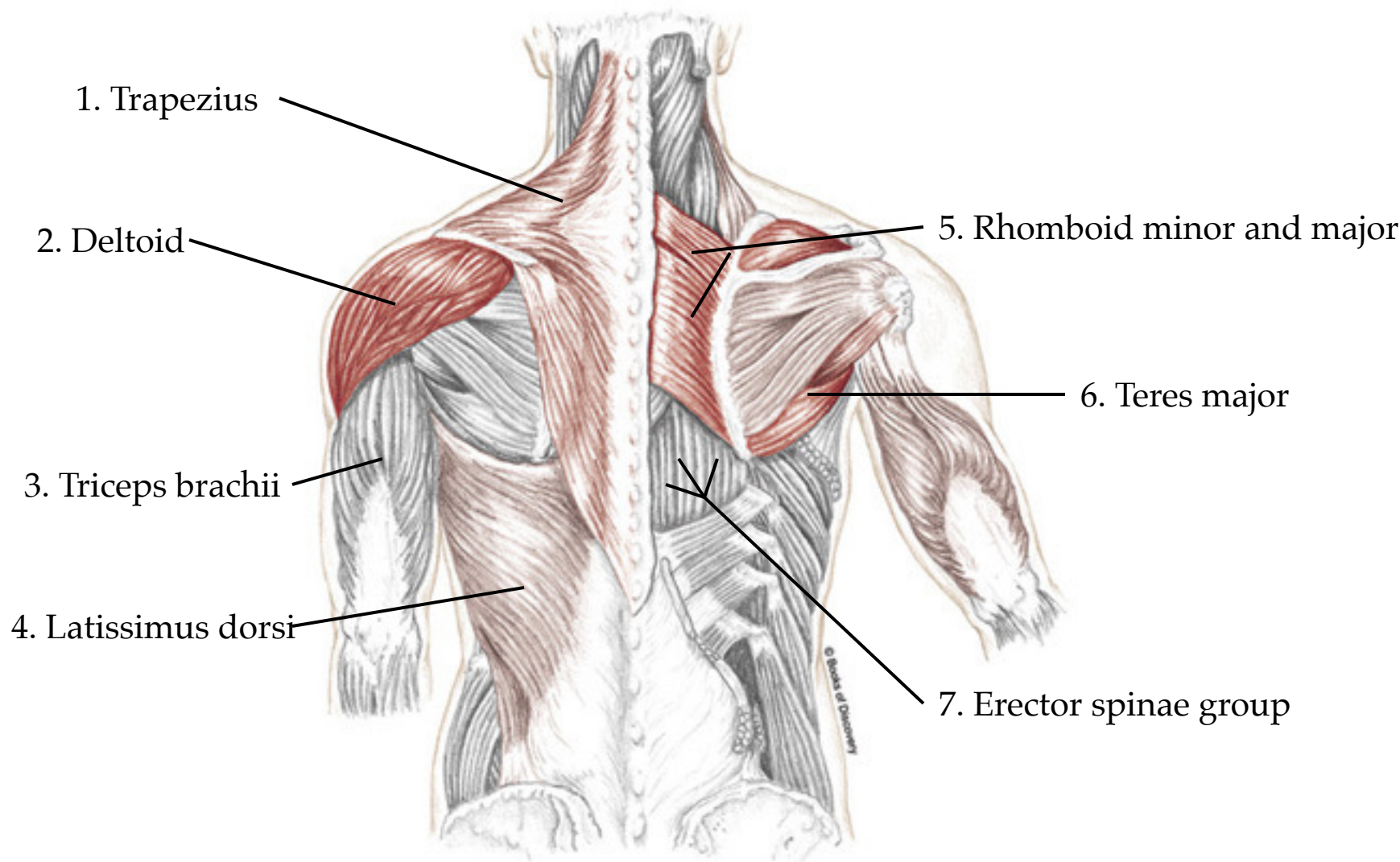
Trail Guide, Page 366



Check your answers

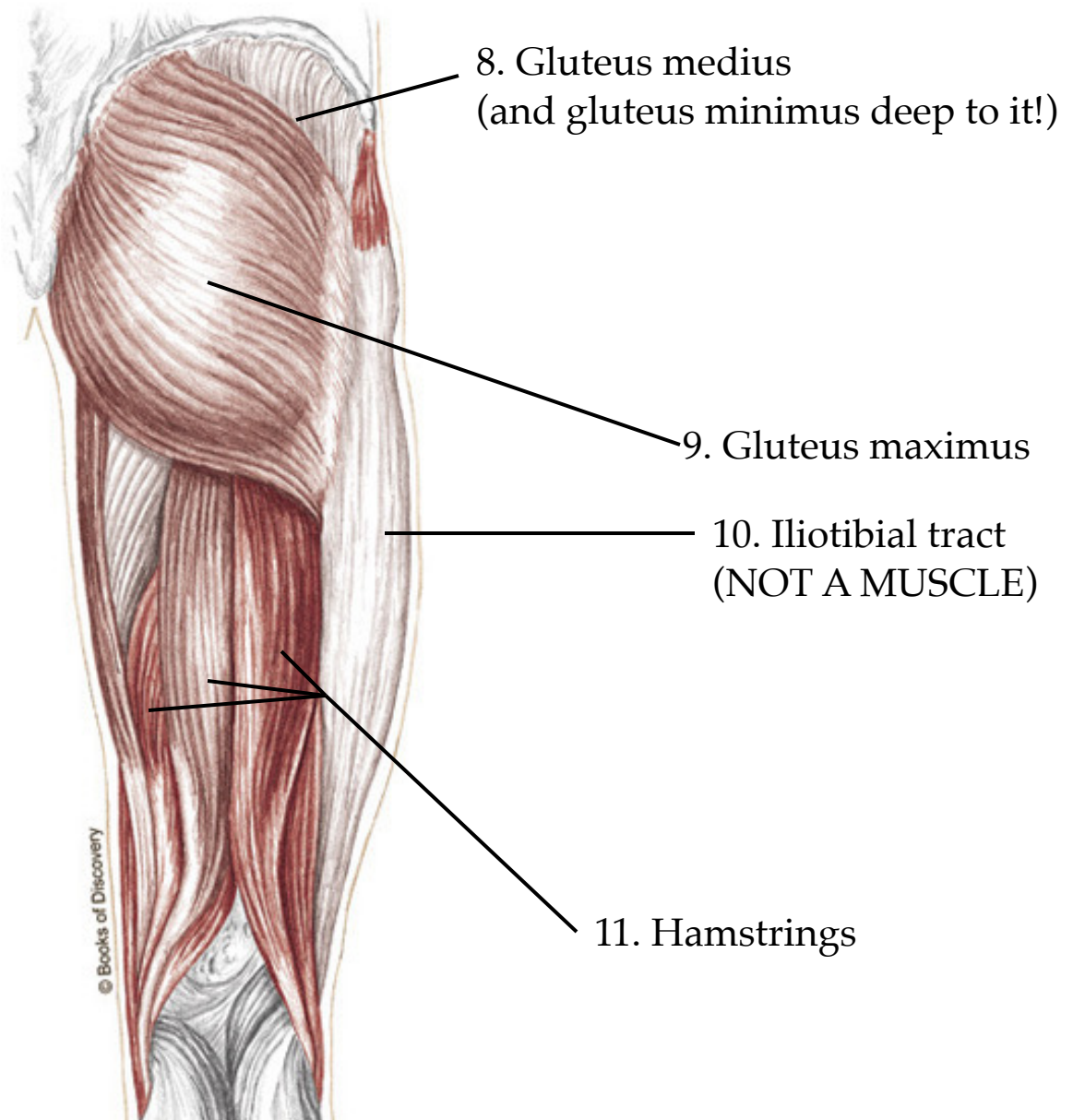


Trail Guide, Page 61



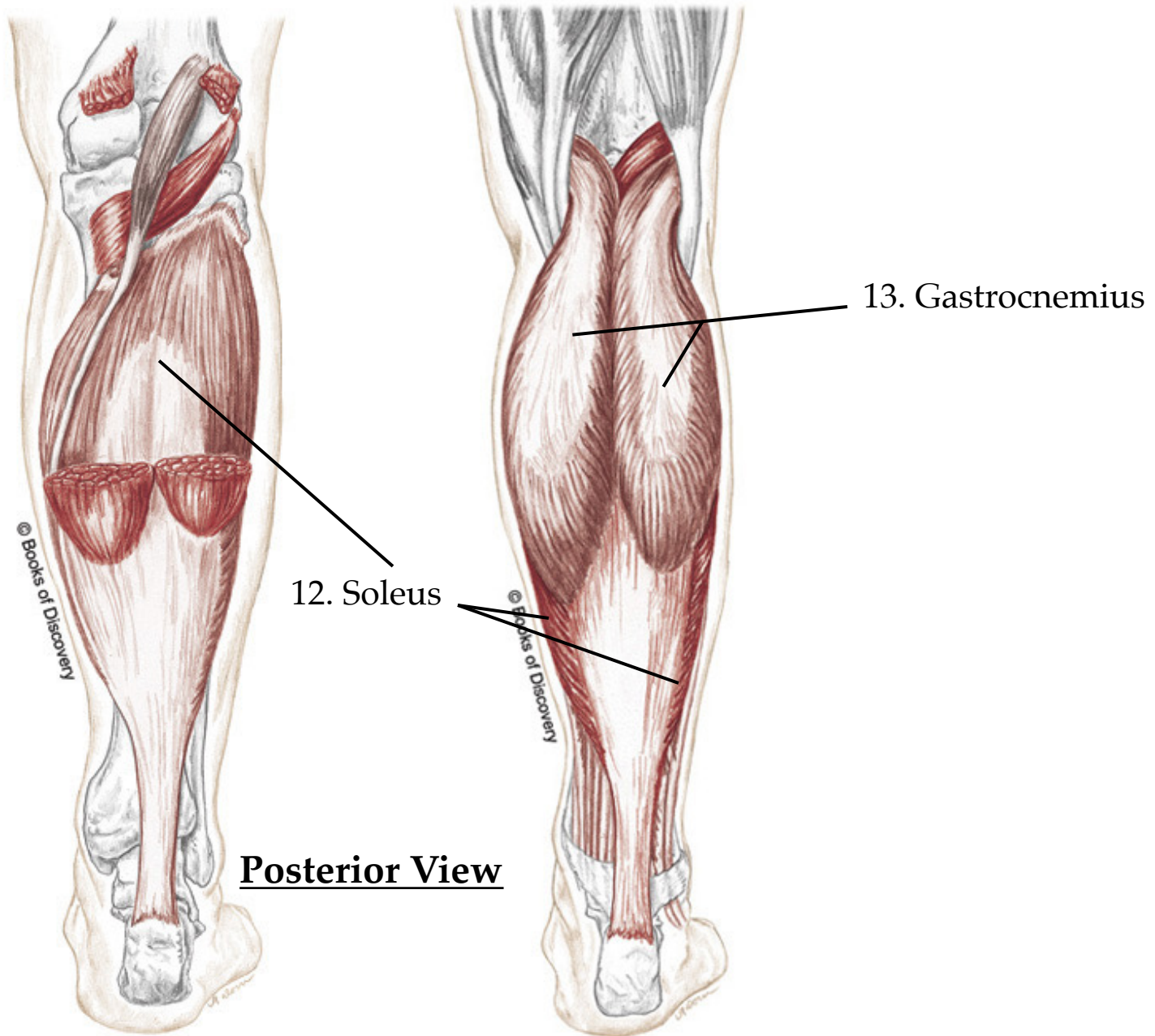
Posterior View

Trail Guide, Page 297

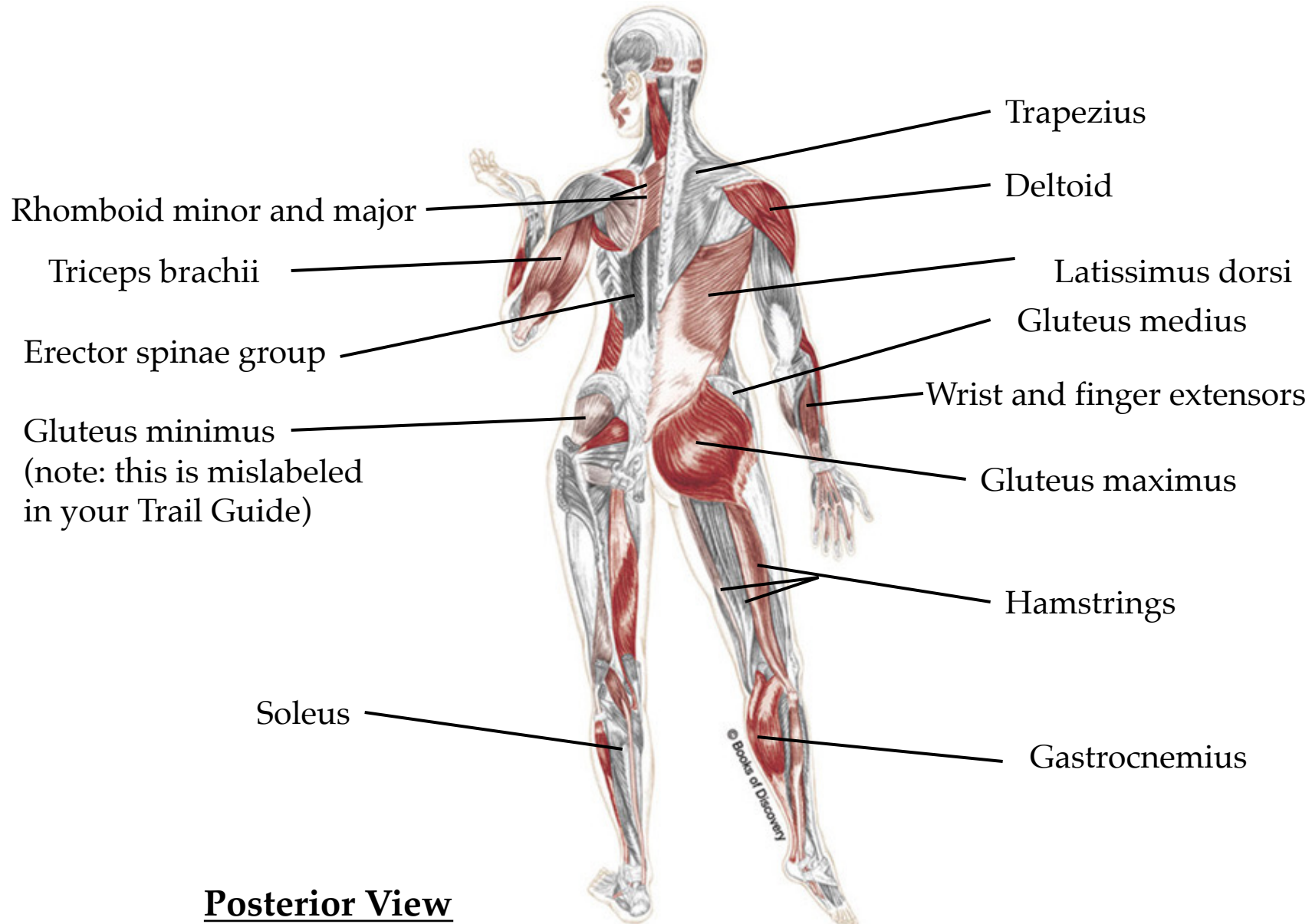


Posterior View

Trail Guide, Page 366



Trail Guide, Page 36



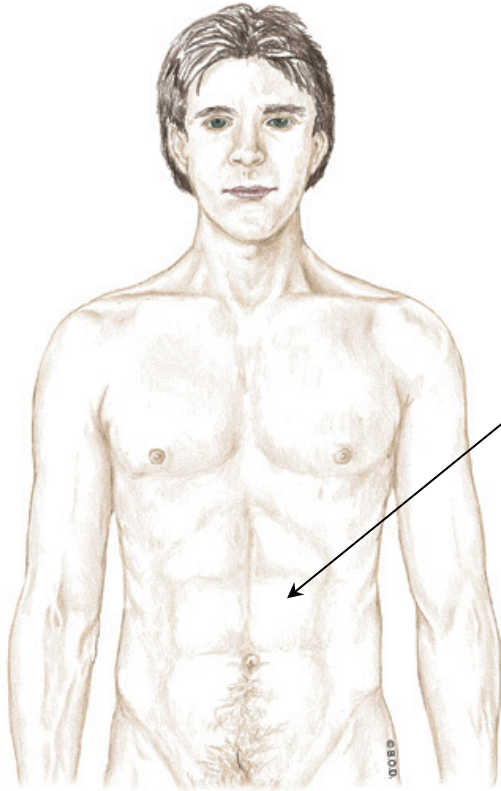
12a Kinesiology:

Muscle Names and Locations



Rectus Abdominis

Trail Guide, Page 210



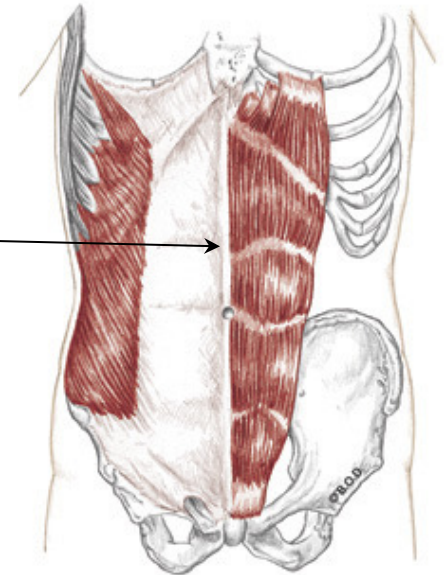
Anterior View

Rectus abdominis

has multiple superficial bellies that are often referred to as a “washboard belly”.

The abdominals as a group of muscles consist of four muscles:

- Rectus abdominis
- External oblique
- Internal oblique
- Transversus abdominis



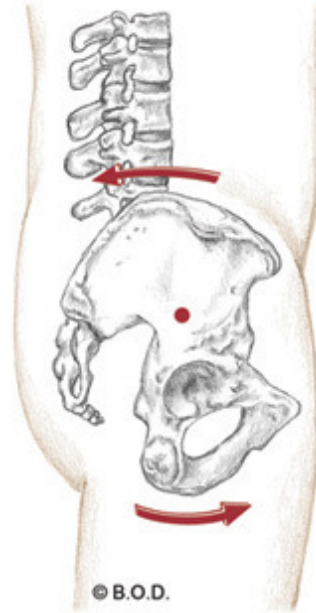
Anterior View

When do you use your rectus abdominis?

Actions of the Rectus Abdominis



Flexion of the vertebral column



Posterior pelvic tilt

Rectus Abdominis, page 210

A

Flex the vertebral column

Tilt the pelvis posteriorly

O

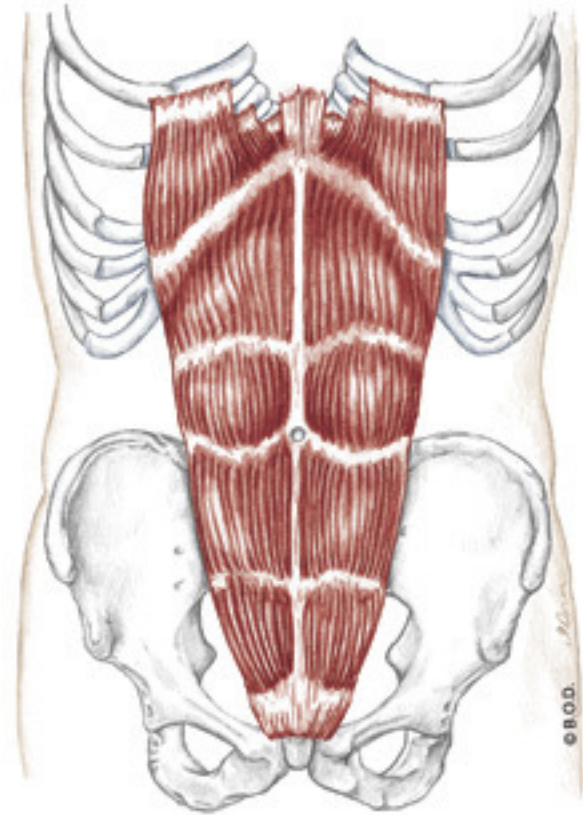
Pubic crest

Pubic symphysis

I

Cartilage of 5th, 6th, and 7th ribs

Xiphoid process



Anterior View



Rectus Abdominis, page 210

A

Flex the vertebral column

Tilt the pelvis posteriorly

O

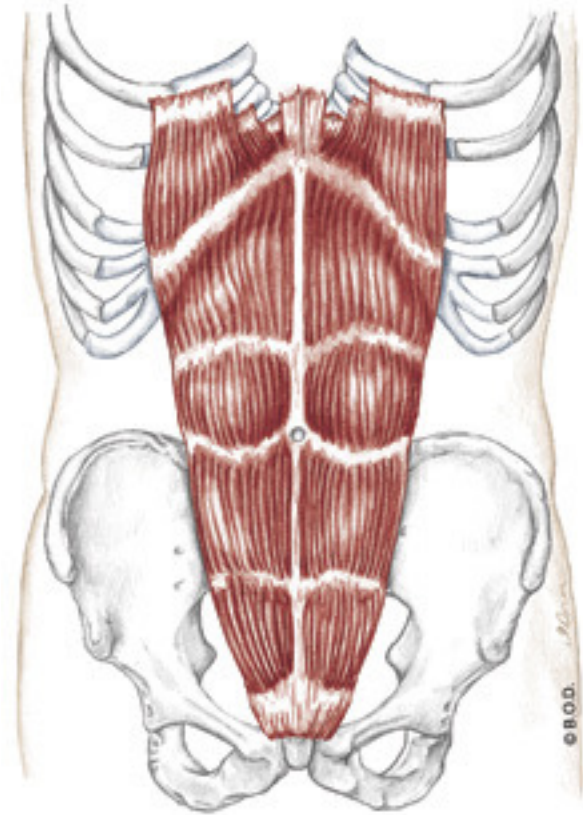
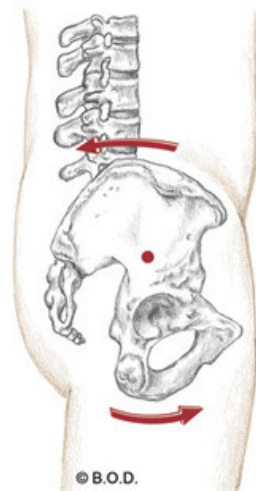
Pubic crest

Pubic symphysis

I

Cartilage of 5th, 6th, and 7th ribs

Xiphoid process



Anterior View

Rectus Abdominis, page 210

A

Flex the vertebral column

Tilt the pelvis posteriorly

O

Pubic crest

Pubic symphysis

I

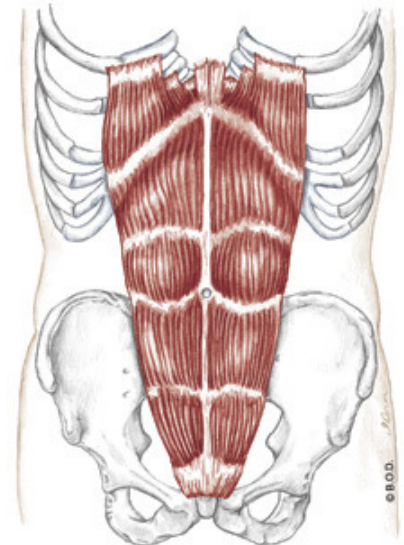
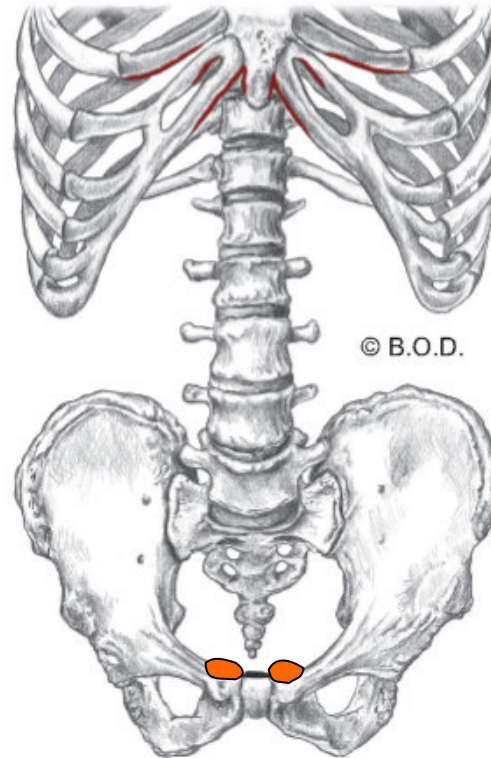
Cartilage of 5th, 6th, and 7th ribs

Xiphoid process

Ilium

Pubis

Ischium



Anterior View

Rectus Abdominis, page 210

A

Flex the vertebral column

Tilt the pelvis posteriorly

C

Pubic crest

Pubic symphysis

I

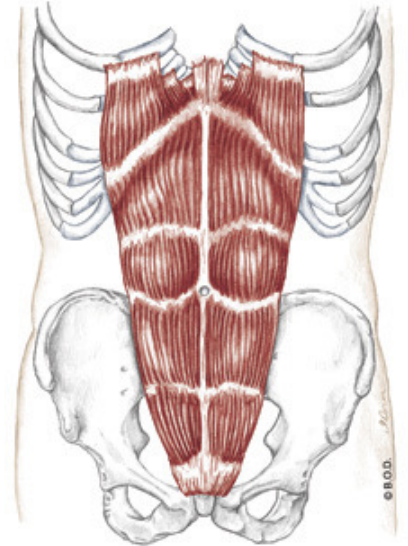
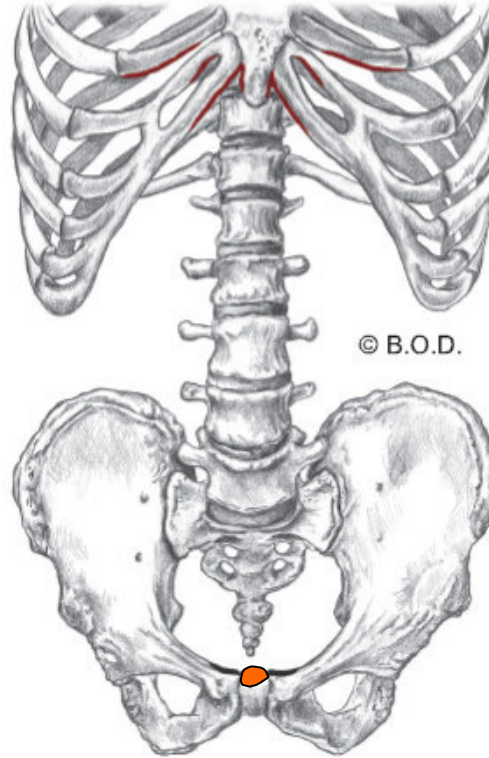
Cartilage of 5th, 6th, and 7th ribs

Xiphoid process

Ilium

Pubis

Ischium



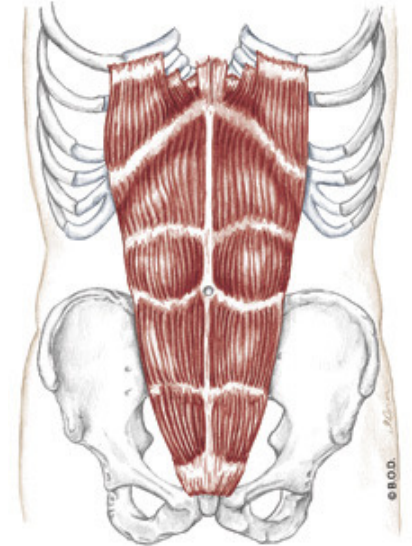
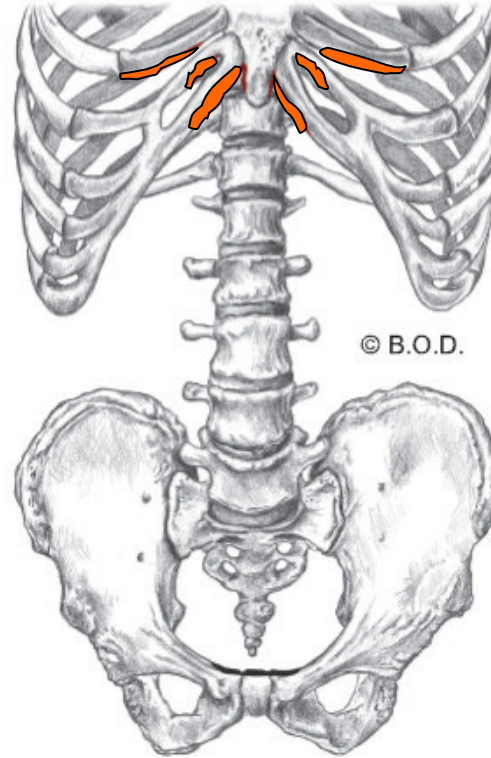
Anterior View

Rectus Abdominis, page 210

A Flex the vertebral column
Tilt the pelvis posteriorly

O Pubic crest
Pubic symphysis

I Cartilage of 5th, 6th, and 7th ribs
Xiphoid process



Anterior View

Rectus Abdominis, page 210

A

Flex the vertebral column

Tilt the pelvis posteriorly

O

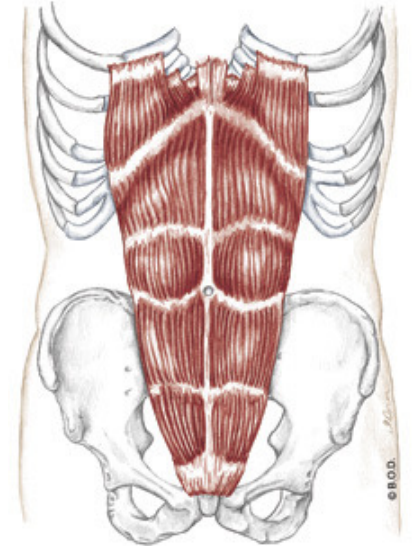
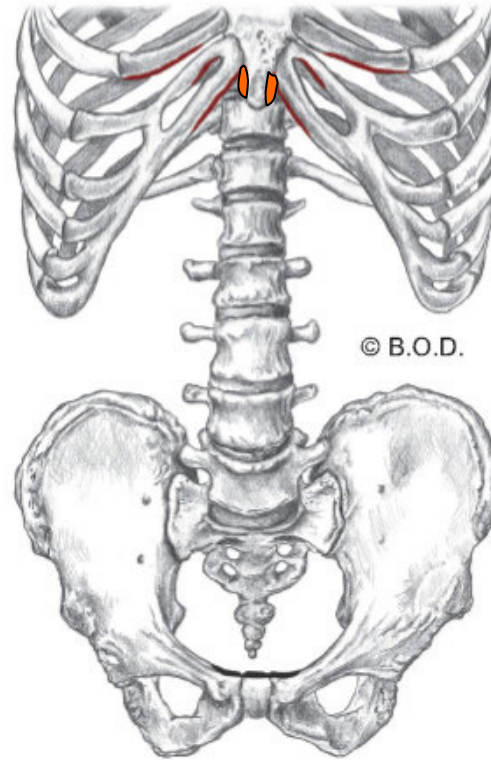
Pubic crest

Pubic symphysis

I

Cartilage of 5th, 6th, and 7th ribs

Xiphoid process



Anterior View

IF TIME ALLOWS...

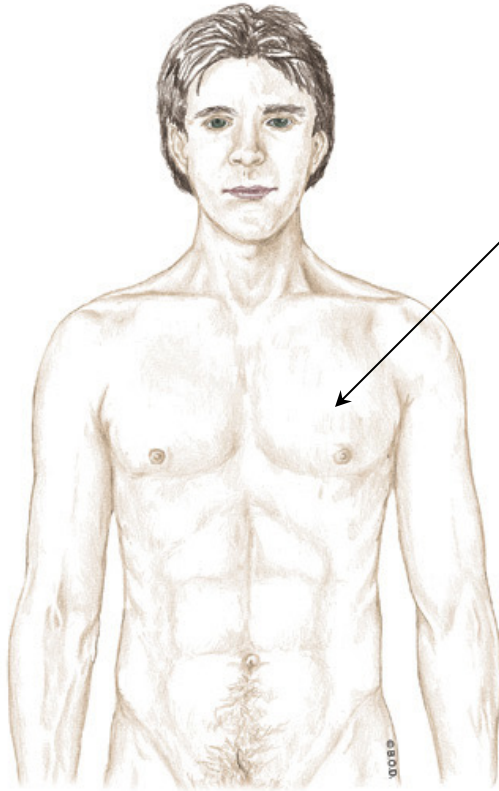
INTRODUCE THE

PECTORALIS MAJOR...

As Follows....

Pectoralis Major

Trail Guide, Page 89



Anterior View

Pectoralis Major

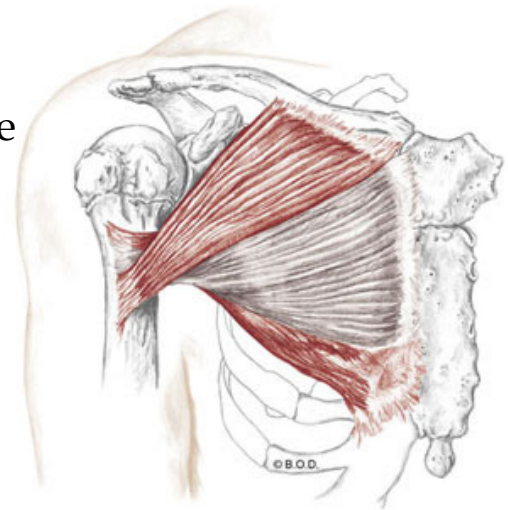
is a broad, powerful muscle located on the chest.

Pec major consists of three segments:

- Clavicular (clavicle)
- Sternal (sternum)
- Costal (rib cartilage)

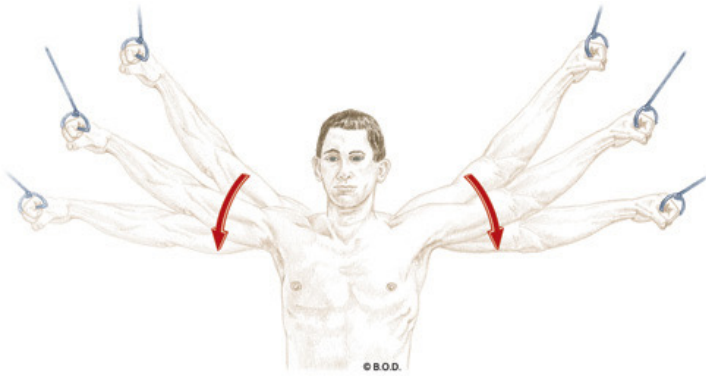
Pec major is also an antagonist to itself:
Upper fibers flex the glenohumeral joint.
Lower fibers extend the glenohumeral joint.

When do you use your pecs?

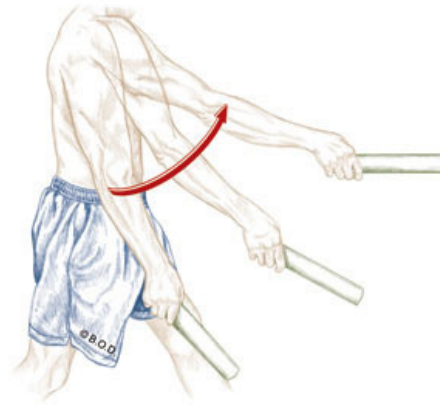


Anterior View

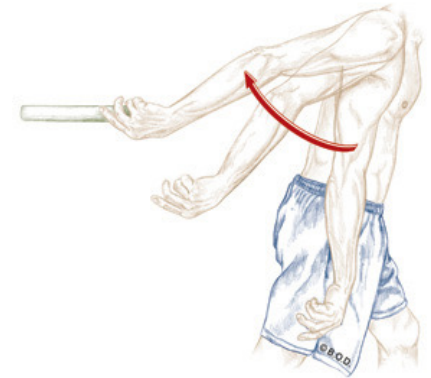
Actions of the Pectoralis Major



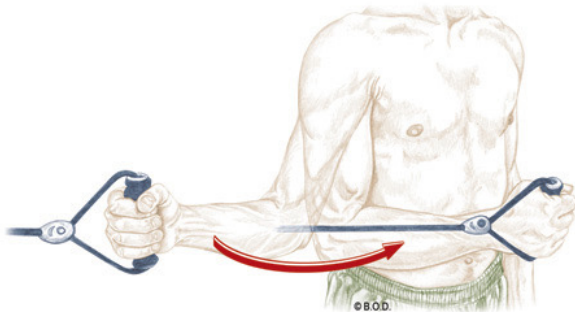
Adduct the glenohumeral joint



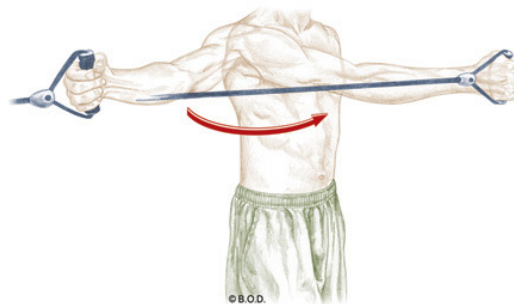
Flex the glenohumeral joint



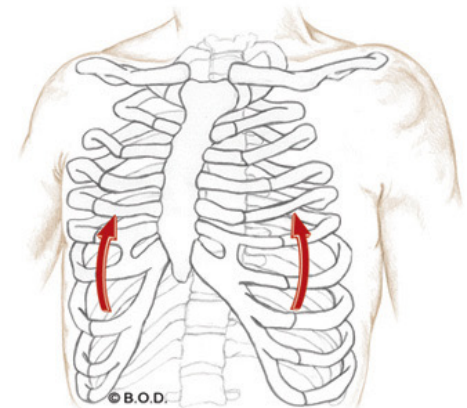
Extend the glenohumeral joint



Medially rotate the glenohumeral joint



Horizontally adduct the glenohumeral joint



Assist to elevate the thorax during forced inhalation

Pectoralis Major, page 89

A All fibers:

Adduct the glenohumeral joint

Medially rotate the glenohumeral joint

Assist to **elevate** the thorax during forced inhalation (with the arm fixed)

Upper fibers:

Flex the glenohumeral joint

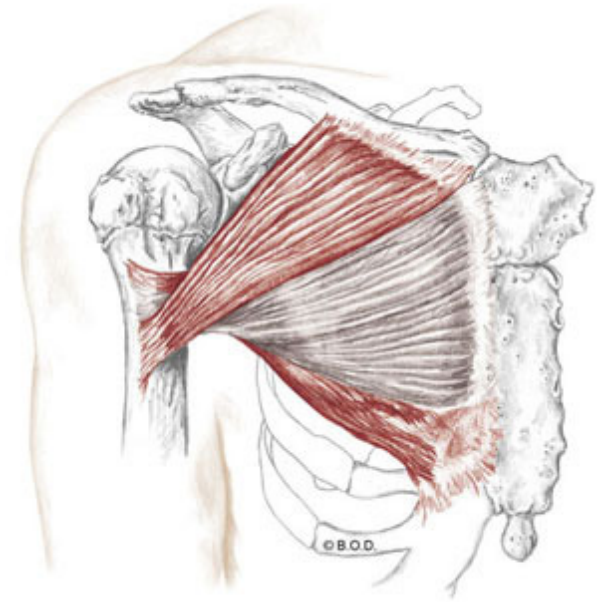
Horizontally adduct the glenohumeral joint

Lower fibers:

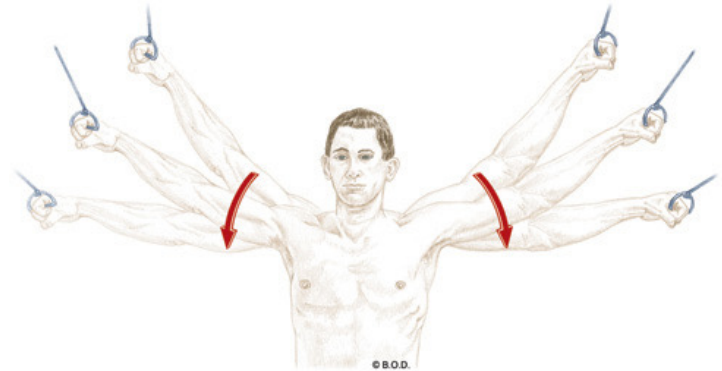
Extend the glenohumeral joint

O Medial half of the clavicle
Sternum
Cartilage of ribs 1-6

I Crest of greater tubercle of humerus



Anterior View



Pectoralis Major, page 89

A All fibers:

Adduct the glenohumeral joint

Medially rotate the glenohumeral joint

Assist to **elevate** the thorax during forced inhalation (with the arm fixed)

Upper fibers:

Flex the glenohumeral joint

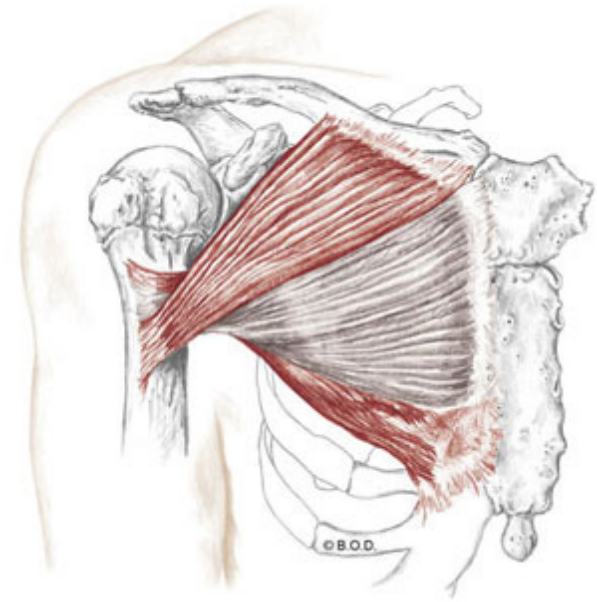
Horizontally adduct the glenohumeral joint

Lower fibers:

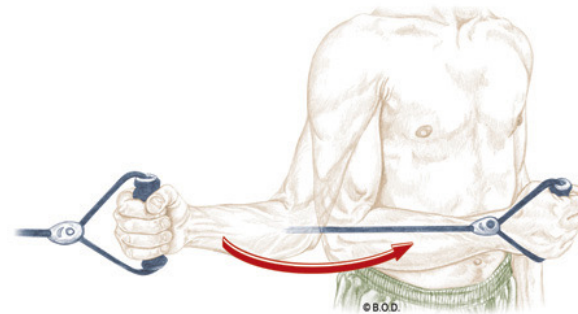
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Pectoralis Major, page 89

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Horizontally adduct the glenohumeral joint

Lower fibers:

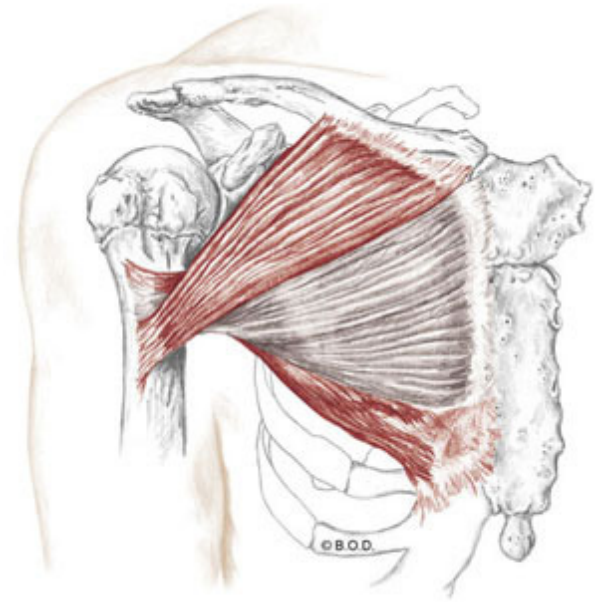
Extend the glenohumeral joint

O Medial half of the clavicle

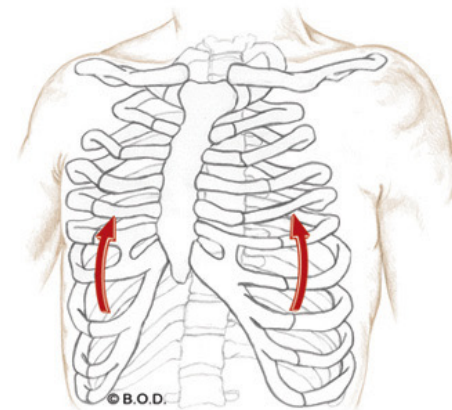
Sternum

Cartilage of ribs 1-6

I Crest of greater tubercle of humerus



Anterior View



Pectoralis Major, page 89

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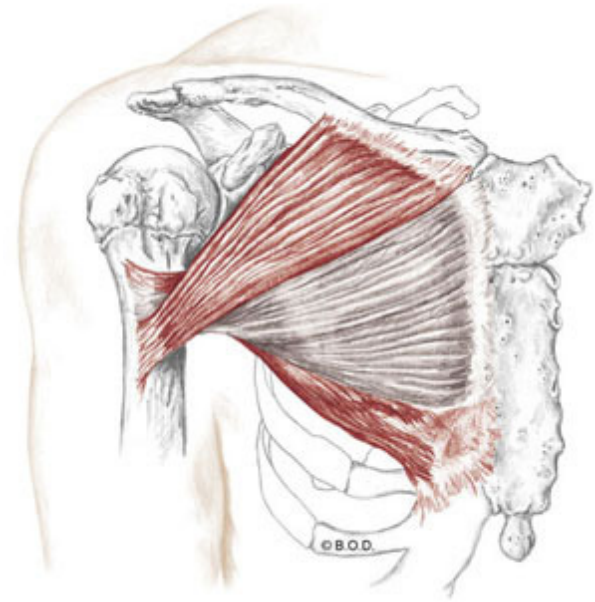
Horizontally adduct the glenohumeral joint

Lower fibers:

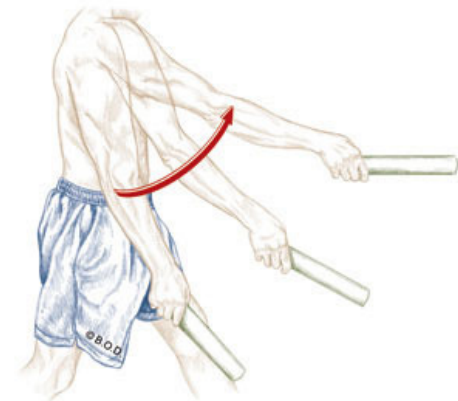
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Pectoralis Major, page 89

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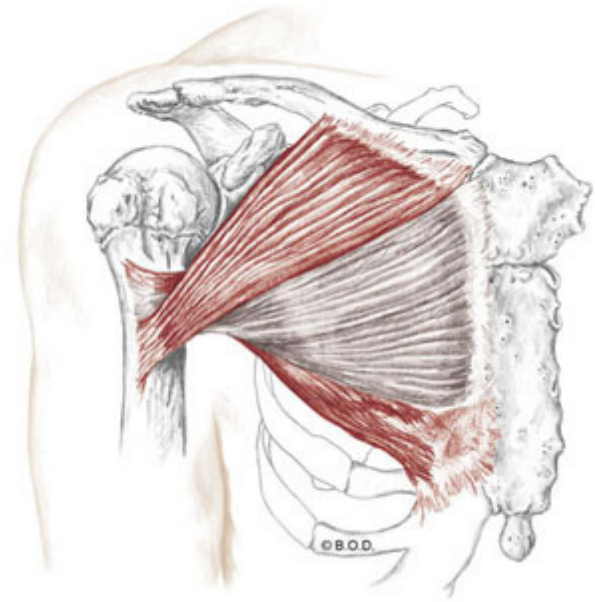
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Lower fibers:

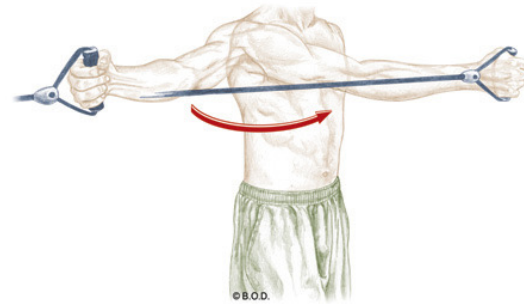
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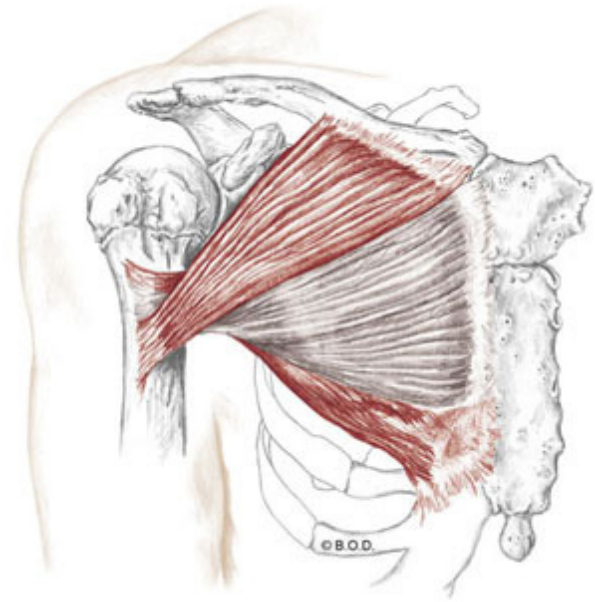
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Lower fibers:

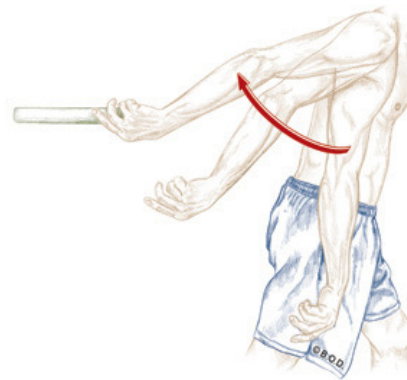
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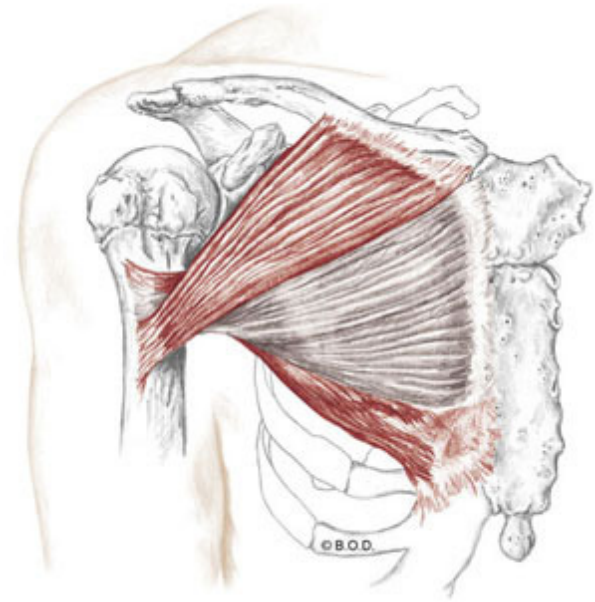
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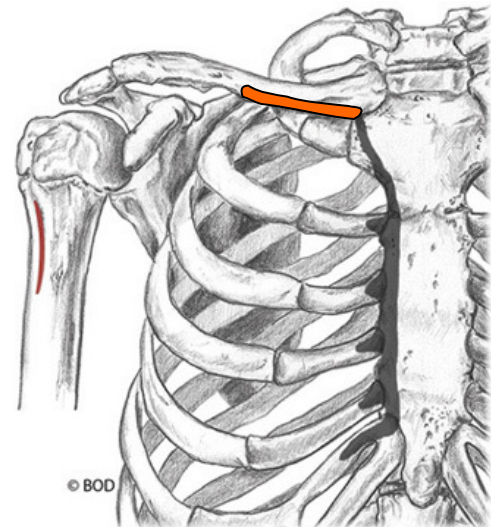
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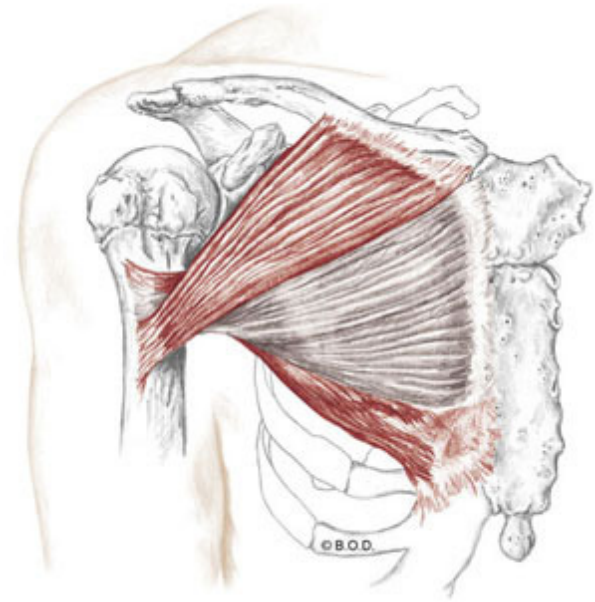
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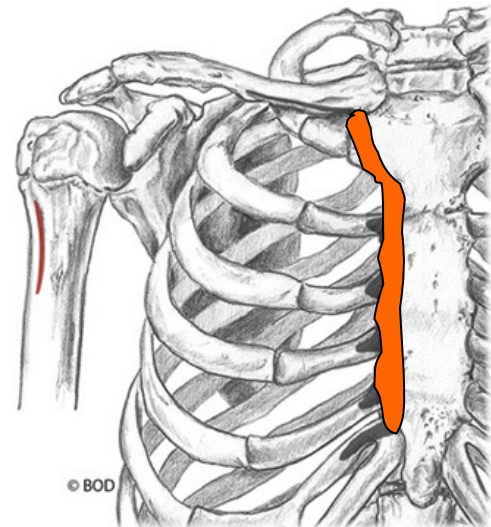
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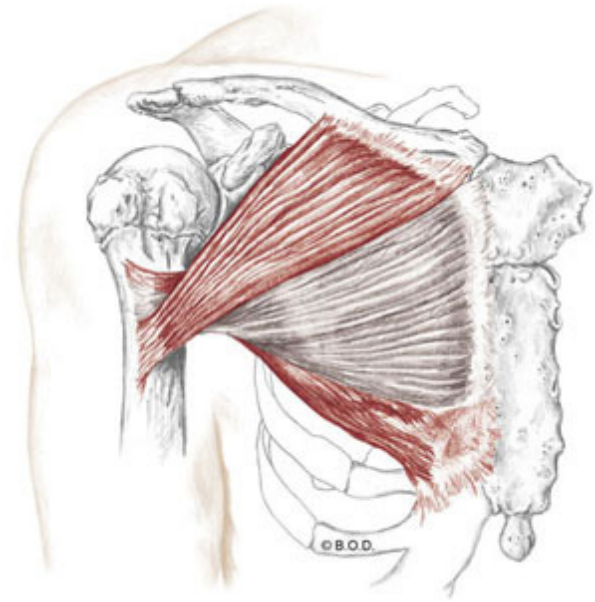
Lower fibers:

Extend the glenohumeral joint

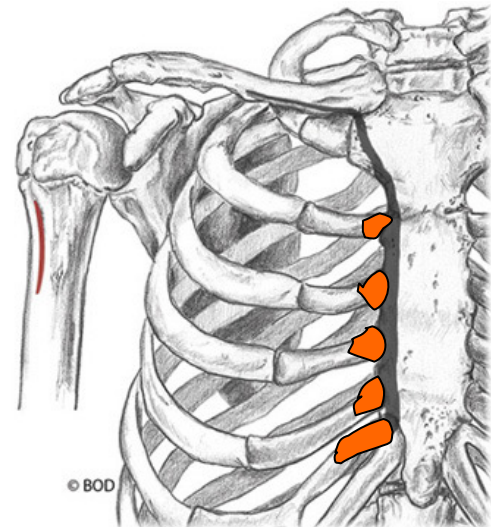
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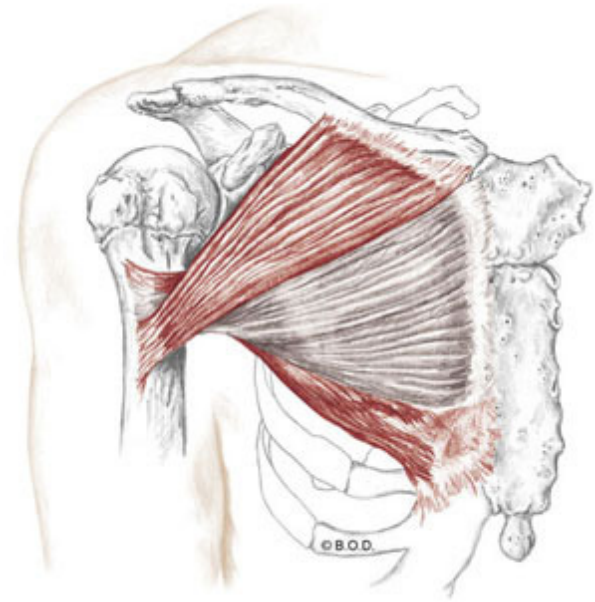
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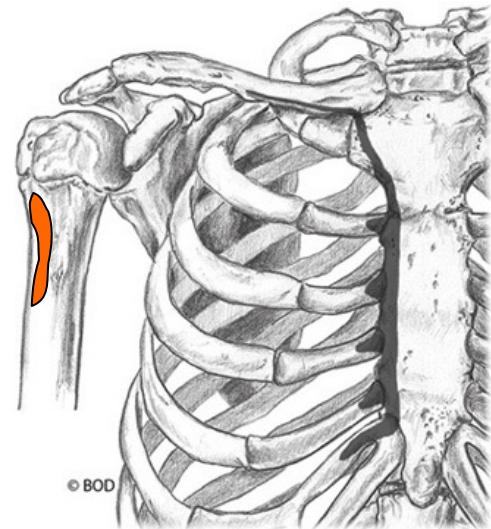
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Anterior View



12a Kinesiology:

Muscle Names and Locations

