6a: Kinesiology Quiz

6a A&P:
Introduction to the Human Body - Tissues

6a A&P:

Introduction to the Human Body - Tissues
Class Outline

5 minutes	Attendance, Breath of Arrival, and Reminders
20 minutes	6a Kinesiology Quiz (A: 73, and 75-80) Quiz given NOW!!
10 minutes	Lecture: AOIs of the gluteals
25 minutes	Lecture:
60 minutes	Total

6a A&P:

Introduction to the Human Body - Tissues
Class Reminders

Assignments:

- 7a Review Questions (A: 119-130)

Quizzes and Exams:

- 8a Quiz (A-73, classes 1b, 2a, 2b, 3a, 3b, 4a, 5a, 6a, and 7a)
- 9a Kinesiology Quiz (A-73, gluteals, hamstrings gastrocnemius and soleus)
- 10a Exam (A-73, classes 1b, 2a, 2b, 3a, 3b, 4a, 5a, 6a, and 7a)

Preparation for upcoming classes:

- 7a A&P: Introduction to the Human Body - Body Compass
  - Trail Guide: hamstrings
  - Salvo: Pages 398-406
  - Packet E: 11-14
  - RQ Packet A-130

- 7b Swedish: Technique Demo and Practice - Posterior Lower Body
  - Packet F: 31-34

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.

Classroom Rules

Cell Phones – Turn it off!

And put it away!

LMS (Learning Mastery System)

Grading your Quiz/Exam

- LMS will automatically grade your assignment and show you your score once you complete the test.
- Retakes: If you did not pass a test you may reserve space in the make-up room. If you are not making up hours, your time there will be at no cost. Retakes may be done at anytime before a student graduates. However, retakes may need to be taken sooner if the improved grade is needed to bring your overall status to passing for purpose of End of Quarter summaries or Clinic eligibility. You may retake a test for a grade up to a 70. All retakes are done on paper copies. You will be given your score once the test is graded by the MTI.
- Absences: If you are absent for a test, you may reserve space in the make-up room. If you are not making up hours, your time there will be at no cost. You will receive full credit for your test score if you take the test within 14 calendar days of your absence. If you take the test after this, there will be a 20-point deduction to your score. These tests will also be taken on paper. You will be given your score once the test is graded by the MTI.

LMS (Learning Mastery System)

- Grades for tests taken on paper will not be posted on your Portal until 2-3 days after it is taken.

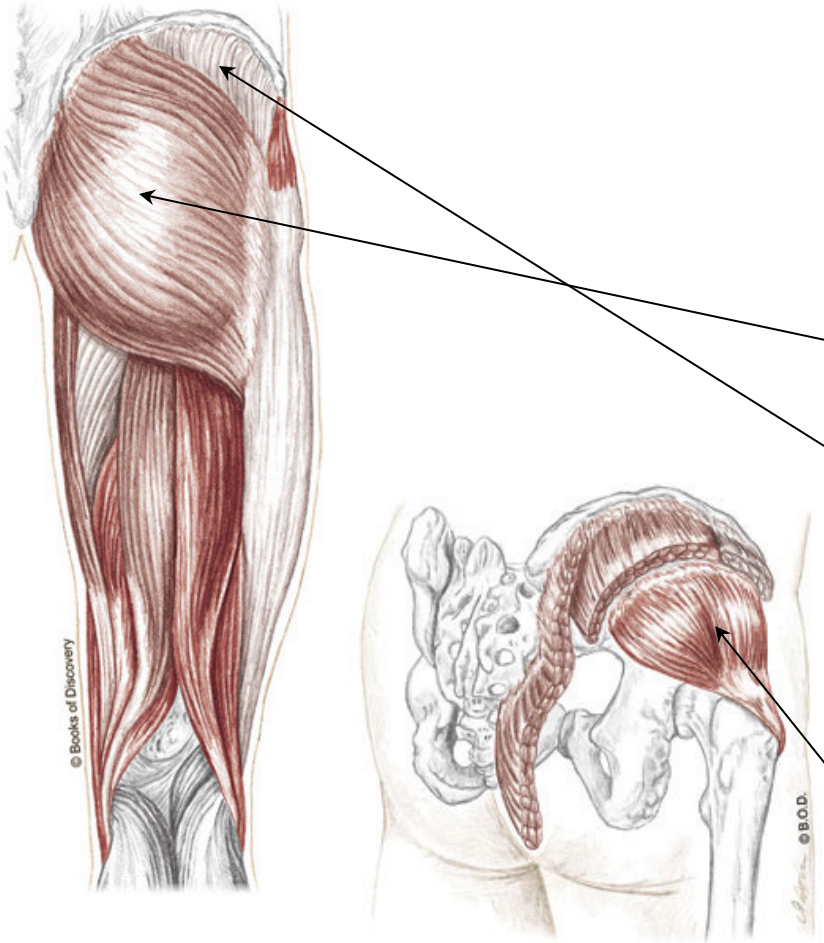
Accessing your Quiz/Exam

- Once you complete your quiz or exam on the LMS you will have access to your completed tests for study purposes. You may click on the Calendar in the right hand margin and click on the assignment/quiz/exam, and it will take you to it and you can review your answers.
- If you complete your quiz or exam on paper due to a retake or an absence, once it is graded you will be given the physical paper copy of it to use for further study and review.
- Please refer to your assignment grid on pages A: 29-32.

6a: Kinesiology Quiz

Gluteals

Trail Guide, Page 315



Posterior View

The three gluteal muscles are located in the buttock region, deep to surrounding adipose tissue.

Adipose = fat

The large, superficial **gluteus maximus** is the most posterior of the group.

Gluteus medius is located on the lateral side of the hip and is also superficial. It is often thought of as "the deltoid of the coxal joint".

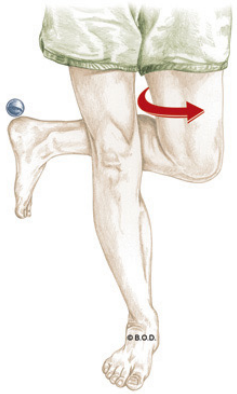
Coxal joint = hip!

The **gluteus minimus** lies deep to the gluteus medius. Its dense fibers can be felt beneath gluteus medius.

When do you use your gluteals?

Actions of the gluteals

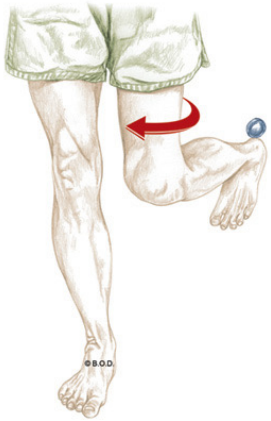
Extension
of the coxal joint



Lateral rotation
of the coxal joint

Abduction
of the coxal joint

Flexion
of the coxal joint



Medial rotation
of the coxal joint

Adduction
of the coxal joint

Gluteus maximus, page 315

A *All fibers*:
Extend the hip (coxal joint)

Laterally rotate the hip (coxal joint)

Abduct the hip (coxal joint)

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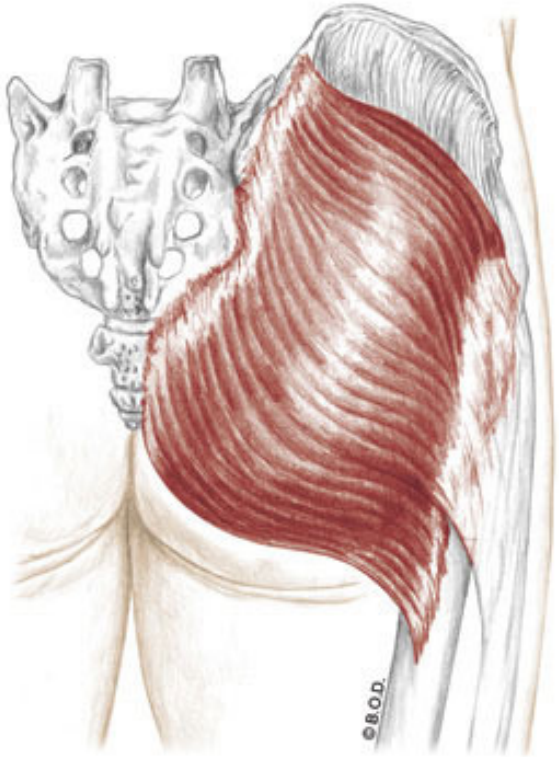

Posterior View

O
Coccyx
Edge of sacrum
Posterior iliac crest
Sacrotuberous ligament
Sacroiliac ligament

I
Iliotibial tract (upper fibers)
Gluteal tuberosity (lower fibers)

Gluteus maximus, page 315

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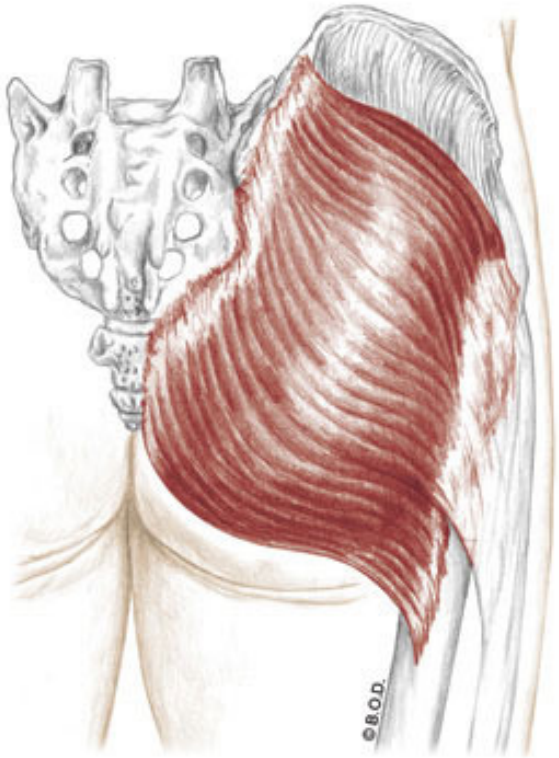

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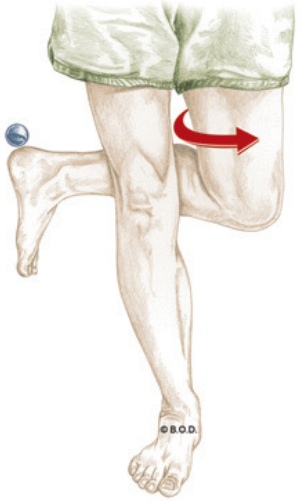

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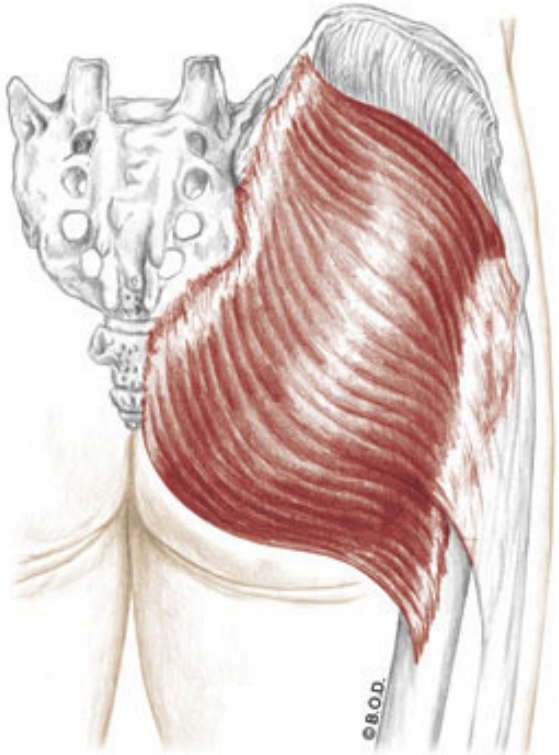

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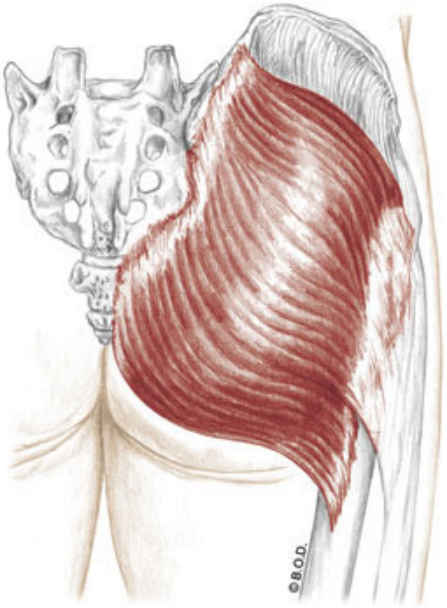
Abduction

Adduction

Gluteus maximus, page 315



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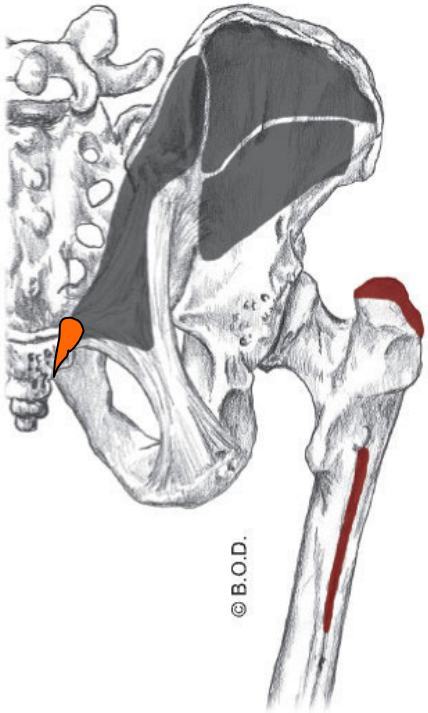
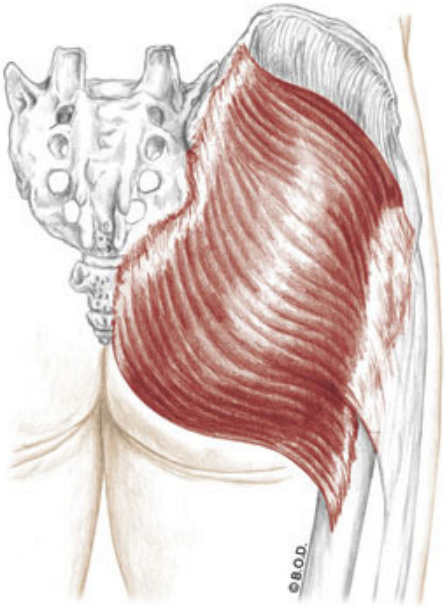


Gluteus maximus, page 315



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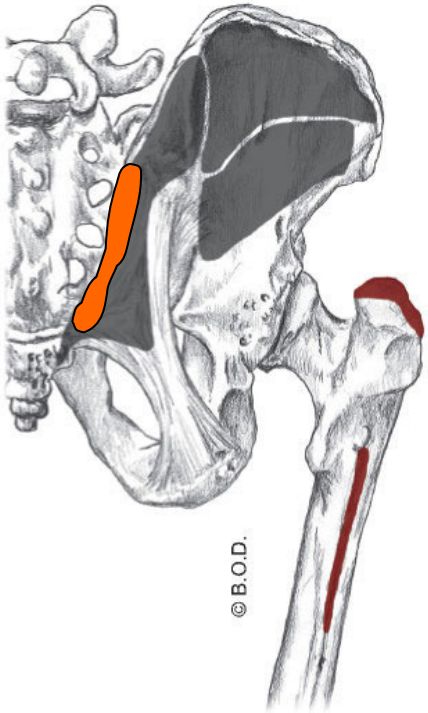

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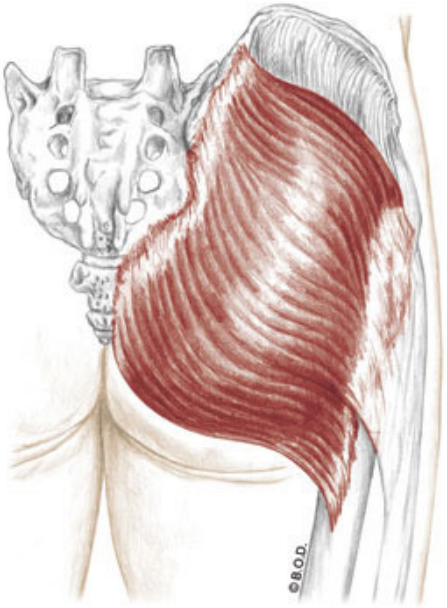

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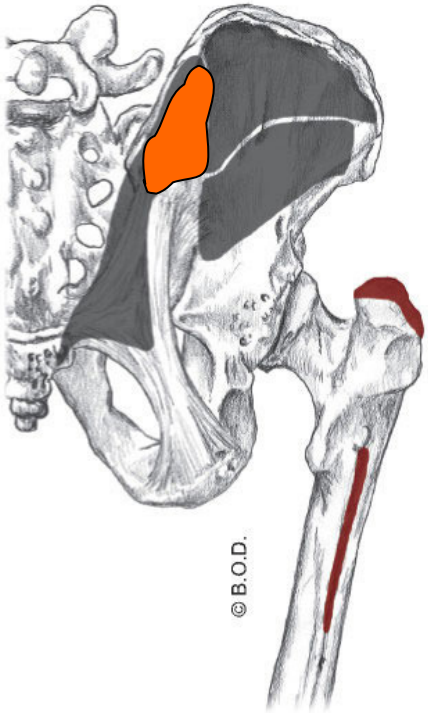

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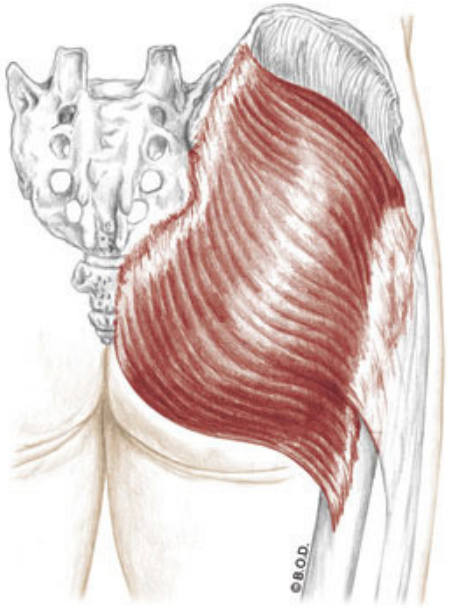

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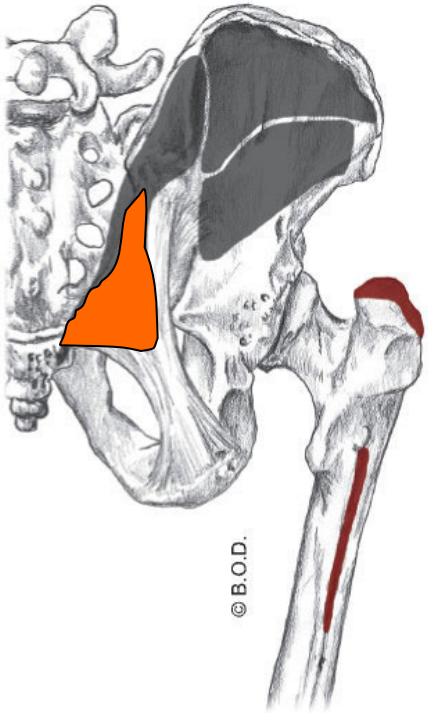

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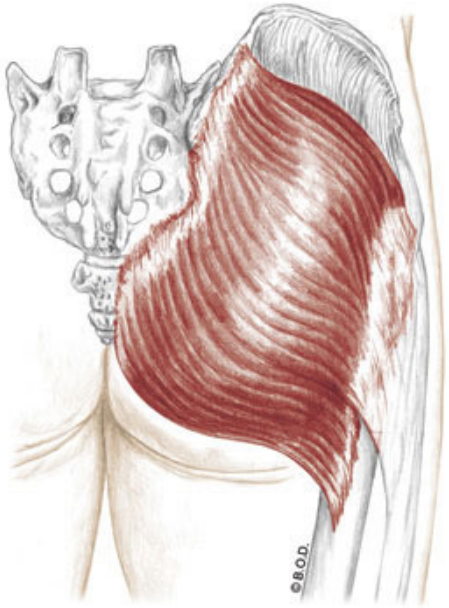

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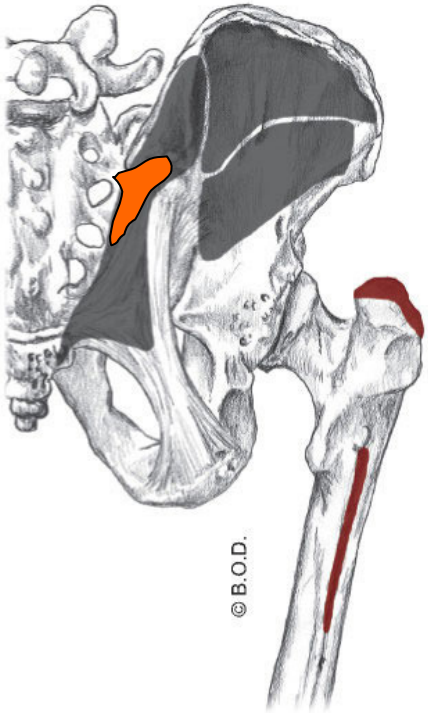

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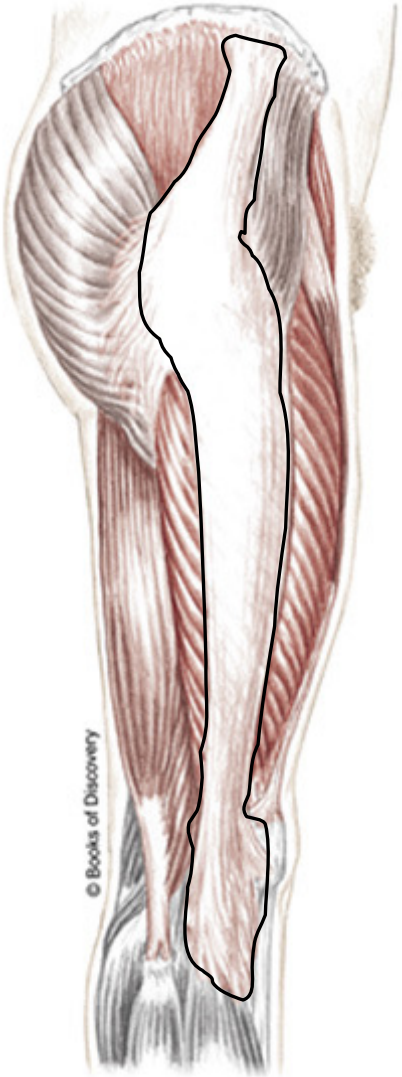

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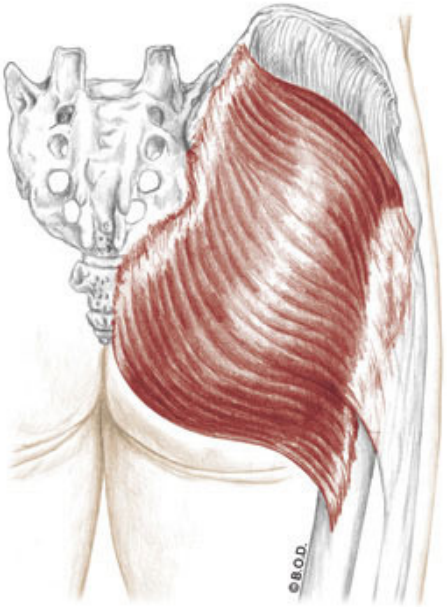

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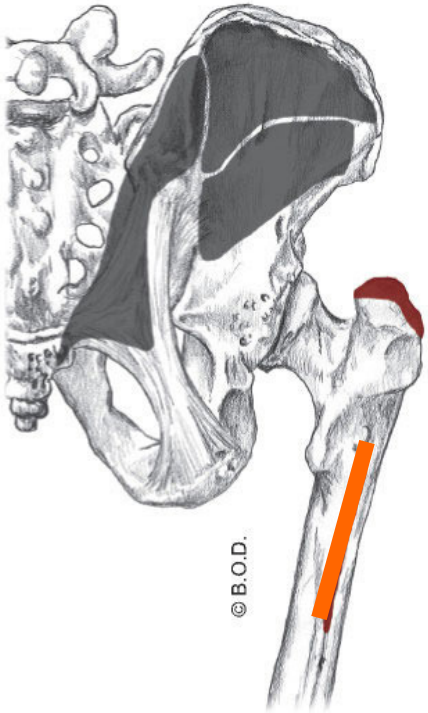

Gluteus medius, page 315

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Anterior fibers:
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Medially rotate the hip (coxal joint)

Posterior fibers:
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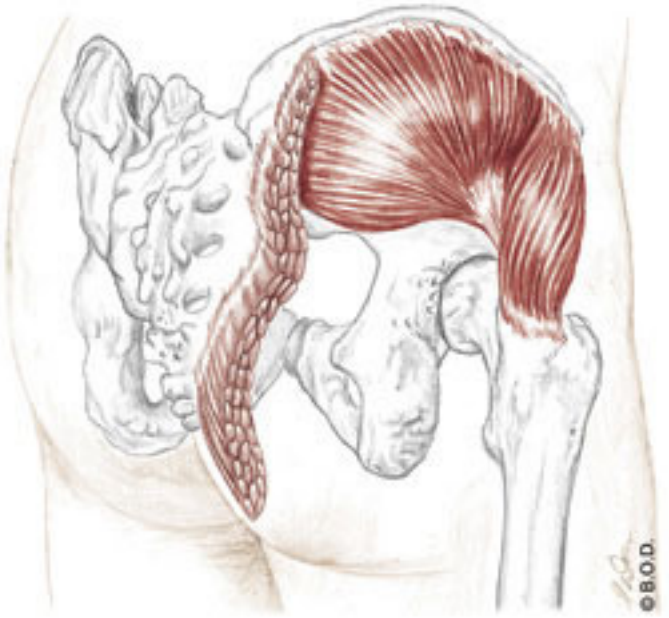
I Lateral aspect of greater trochanter



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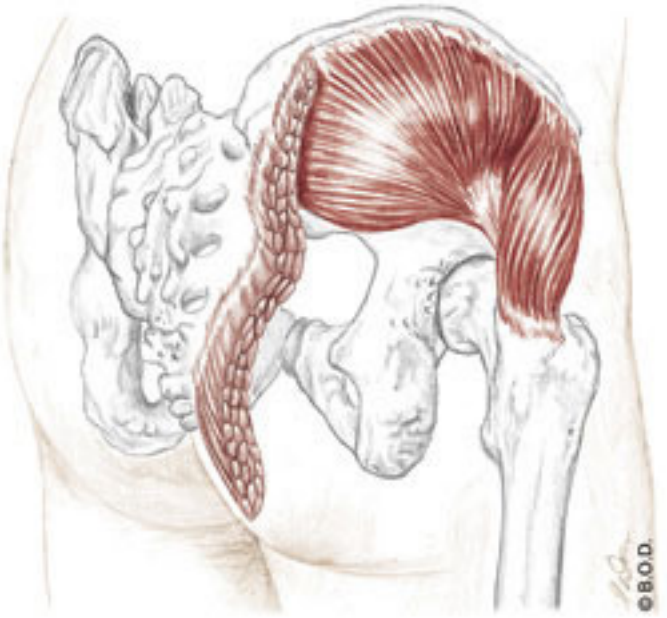

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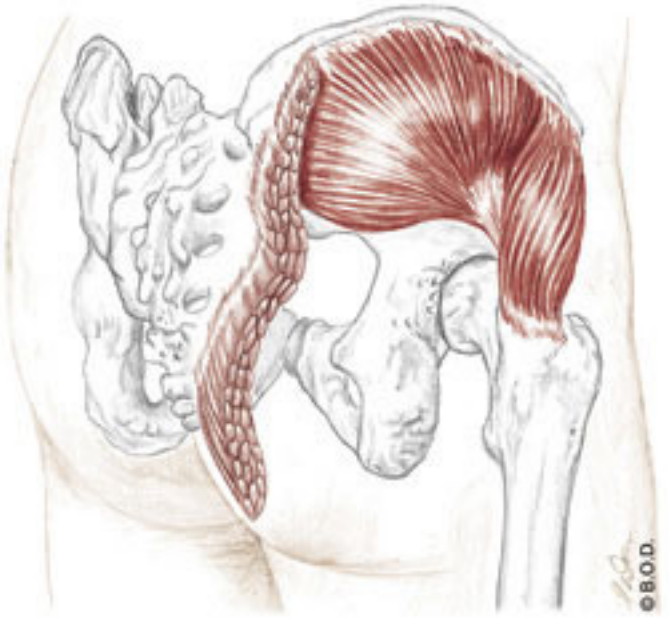

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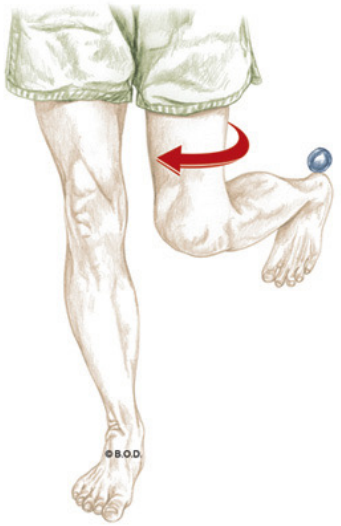

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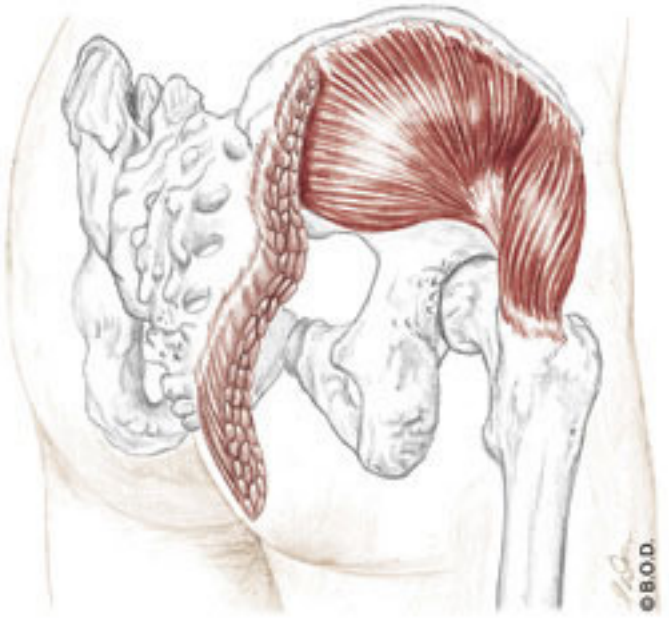

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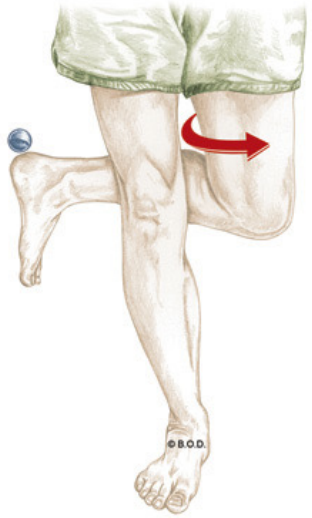

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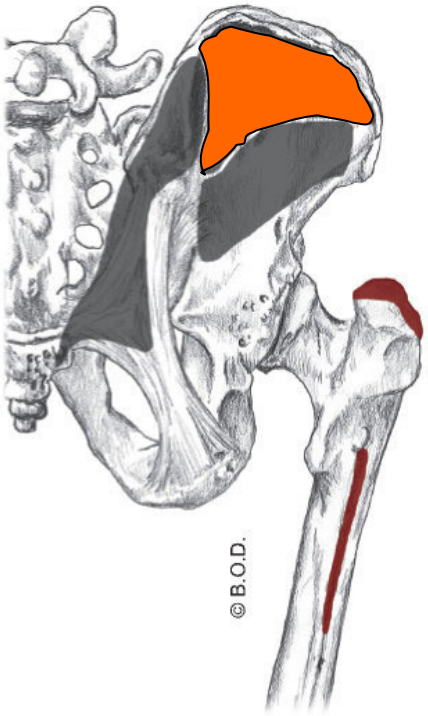

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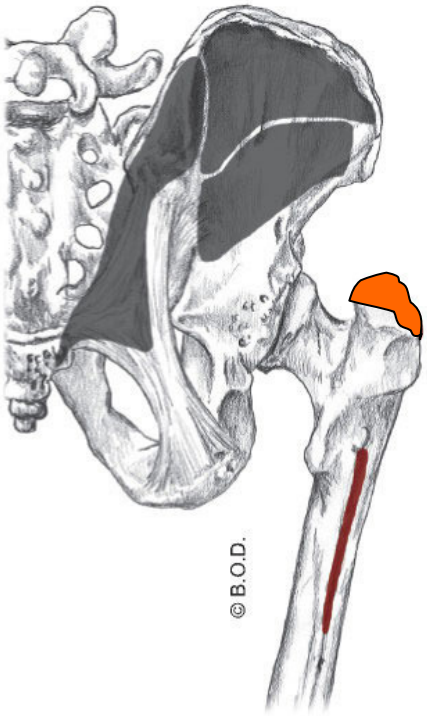

Gluteus minimus, page 316

A **Abduct** the hip (coxal joint)

Medially rotate the hip (coxal joint)

Flex the hip (coxal joint)

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I Anterior aspect of greater trochanter

Posterior View

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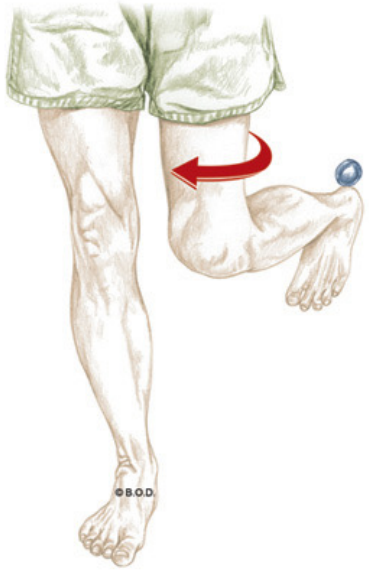

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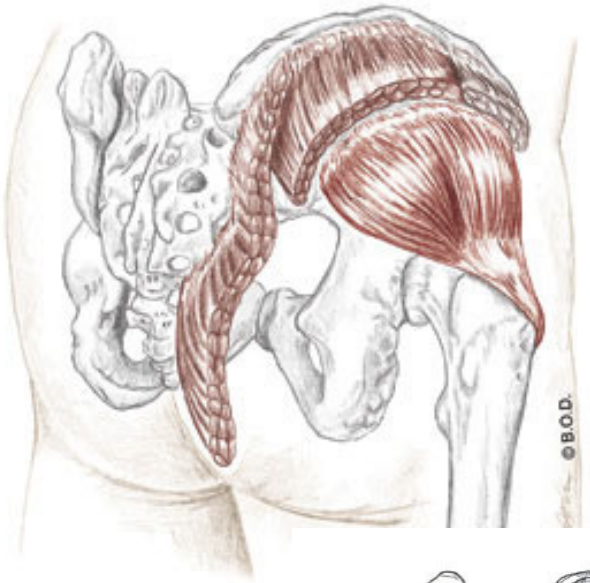

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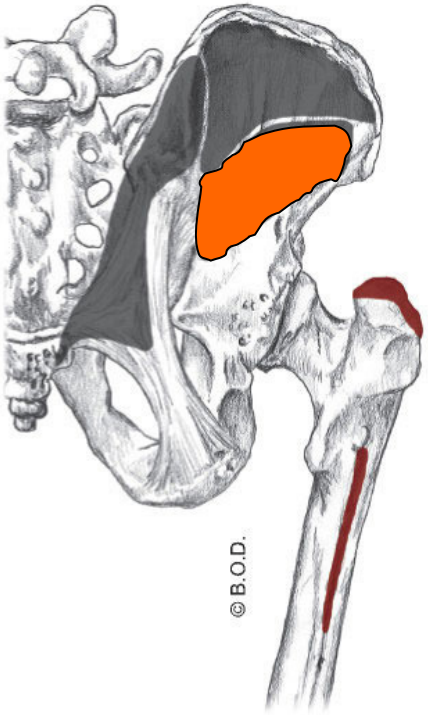

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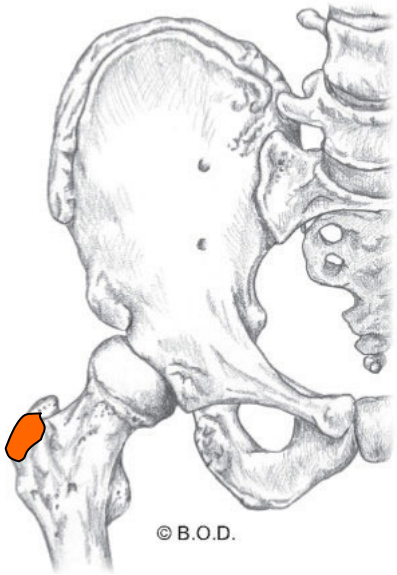


6a A&P:

Introduction to the Human Body - Tissues

E-7

Tissues

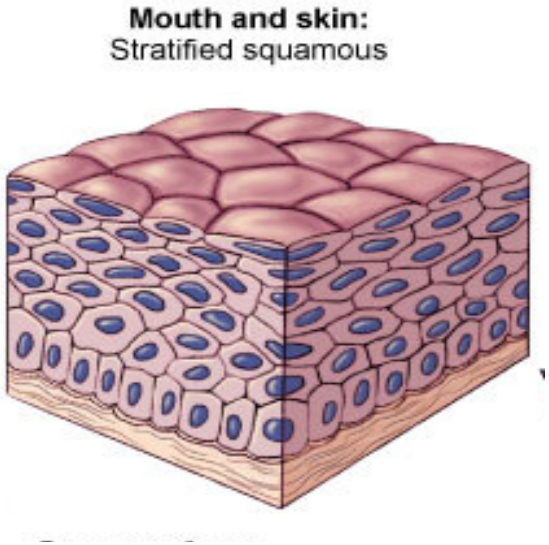
Tissue Group of similar __cells__ that act together to perform a specific function.

Types: epithelial, connective, muscle, and nerve.

Tissues

I. Epithelial tissue Tissue that __lines__ or __covers__ the body's external surface (skin), internal organs, blood vessels, body cavities, and the digestive, respiratory, urinary, and reproductive tracts.

Examples: skin, endothelium that lines blood vessels and the heart.



Tissues

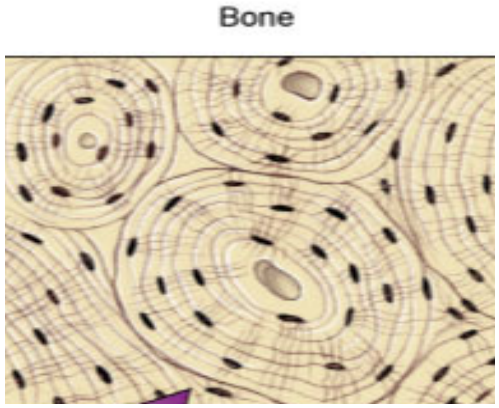
II. Connective tissue Tissue that is the most __abundant__ and diverse. Connects, supports, transports, and defends. Types:

A. Fibrous

B. Bone

C. Cartilage

D. Liquid



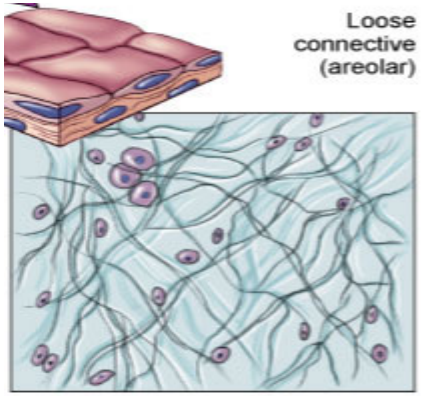
Tissues

A. Fibrous connective tissue The packing material of the body. It attaches the skin to underlying structures in a basement membrane, serves to wrap and support the body cells, fills the gaps between structures such as organs and muscles, and helps keep them in their proper places. Types:

1. Loose
2. Adipose
3. Reticular
4. Dense

Tissues

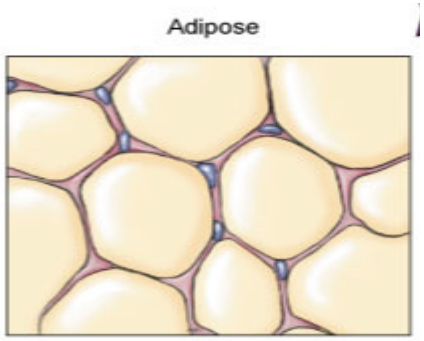
1. Loose fibrous connective tissue One of the most widely distributed connective tissues and has little __tensile__ strength.



Tissues

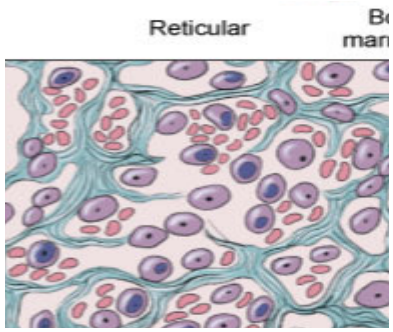
2. Adipose fibrous connective tissue Tissue that specializes in storage of fat that insulates the body against heat loss, provides fuel reserves for energy, and provides a cushion around certain structures such as the heart, kidney, and some joints.

Example: yellow bone marrow.



Tissues

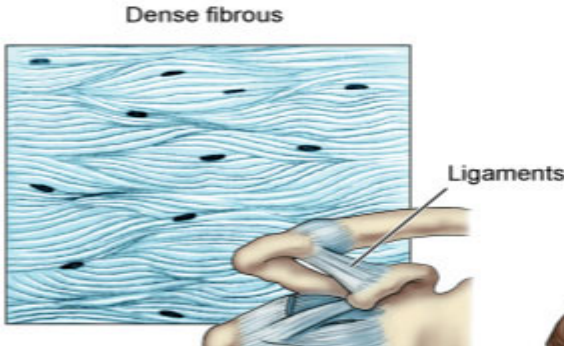
3. Reticular fibrous connective tissue The supportive framework of bones and of certain organs such as the liver and spleen.



Tissues

4. Dense fibrous connective tissue Compact, strong, __inelastic__ bundles of parallel collagenous fibers that have a glistening white color.

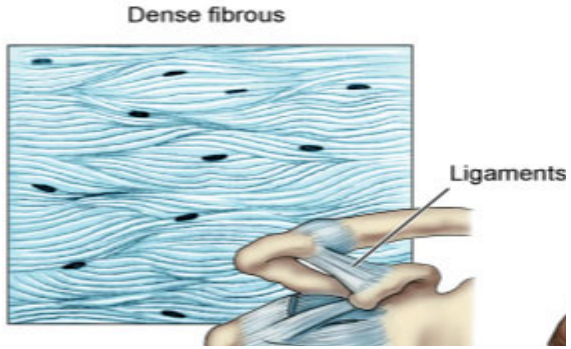
Types: irregular and regular.



Tissues

Dense irregular fibrous tissue Resists pulling forces in __several__ directions.

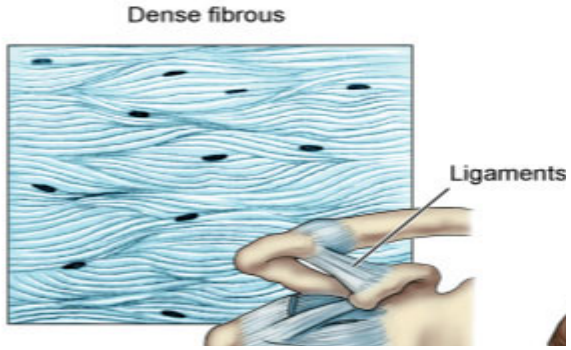
Examples: deep fascia, dermis of the skin, periosteum, and capsules of organs.



Tissues

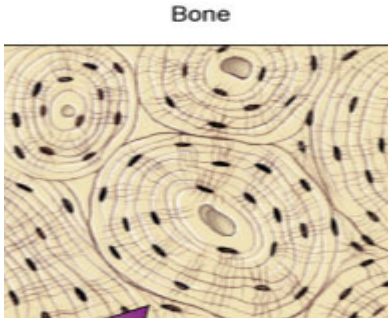
Dense regular fibrous tissue Resists pulling forces in __two__ directions.

Examples: ligaments, tendons, retinacula, and aponeuroses.



Tissues

B. Bone connective tissue The hardest and most __dense__ connective tissue type. Types: compact and spongy.



Tissues

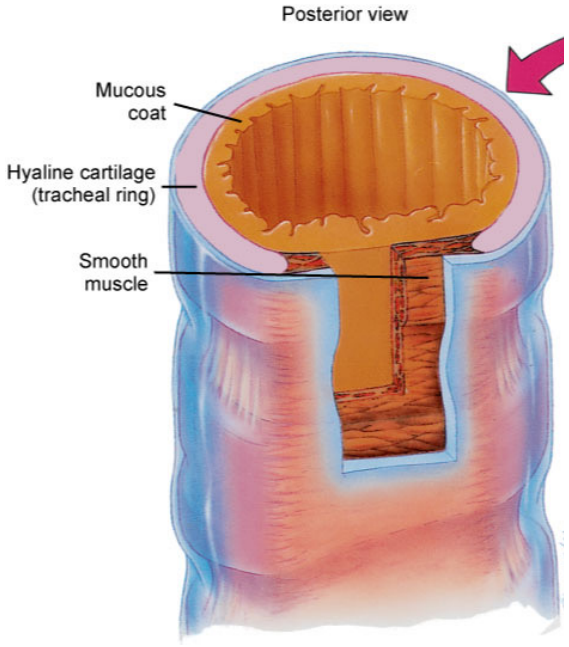
C. Cartilage connective tissue Avascular, tough, protective tissue capable of withstanding repeated __stress__ and is found chiefly in the thorax, joints, and certain rigid structures of the body such as the trachea, larynx, nose, and ears.

Types:

1. Hyaline cartilage
2. Fibrocartilage
3. Elastic cartilage

Tissues

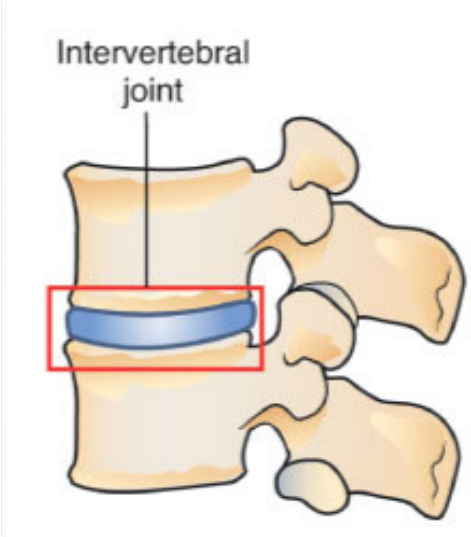
1. Hyaline cartilage (AKA: gristle) Elastic, rubbery, and __smooth__ cartilage that covers articulating ends of bones. Connects ribs to the sternum. Supports the nose, *trachea*, and part of the larynx.



Tissues

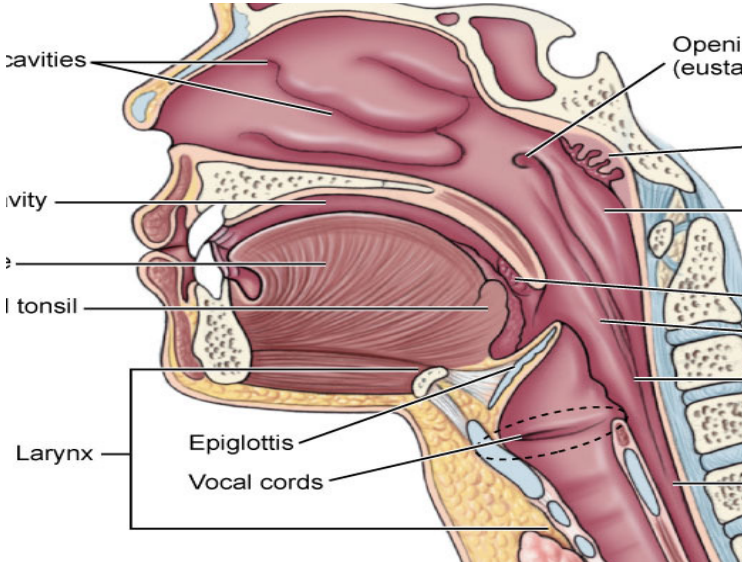
2. Fibrocartilage Cartilage with a dense matrix of __white__ collagenous fibers. Has the greatest tensile strength of all cartilage types.

Examples: *intervertebral disks*, knee joint, and between the pubic bones.



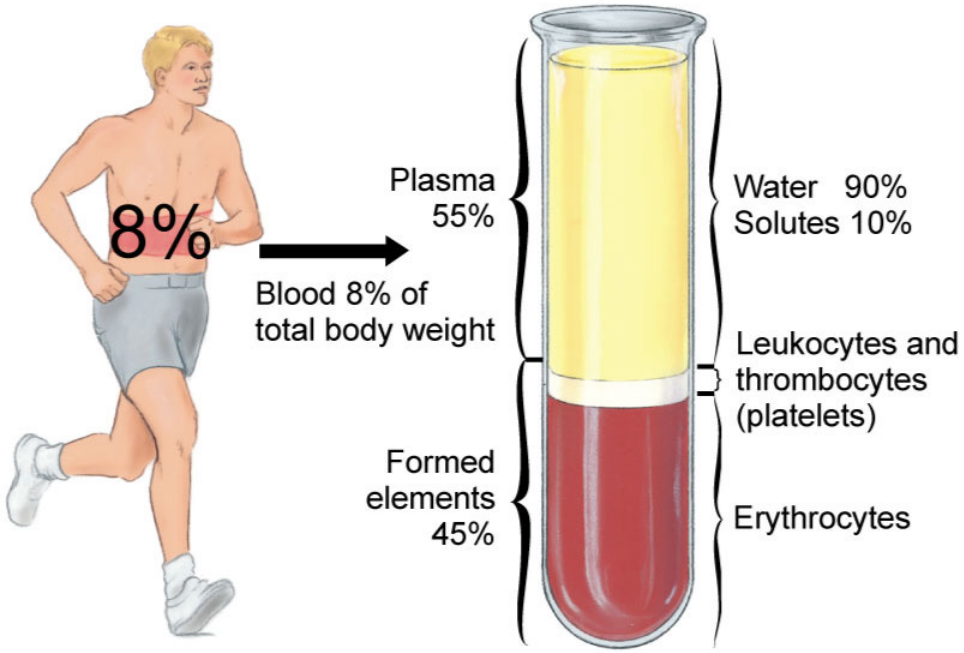
Tissues

3. Elastic cartilage (AKA: yellow) The __softest__ and most pliable cartilage type. Consists of elastic fibers in a flexible fibrous matrix. Examples: external nose and ears, *epiglottis*, part of the larynx, and auditory tubes.



Tissues

D. Liquid connective tissue Contains a distinct collection of cells floating in a liquid matrix. Types: *blood* and lymph.



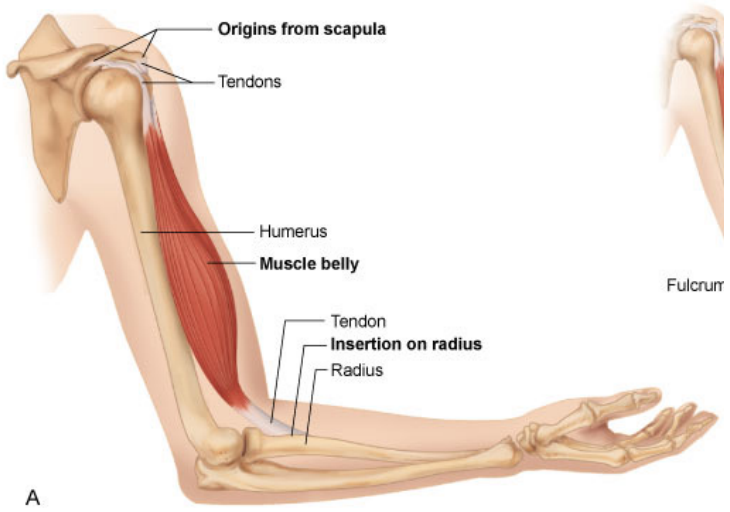
Tissues

III. Muscle tissue Tissue that produces _movement_ of the body. Has the ability to contract, elongate, respond to stimulus, and return to its original shape after movement. Types:

a. Smooth muscle

b. Skeletal muscle

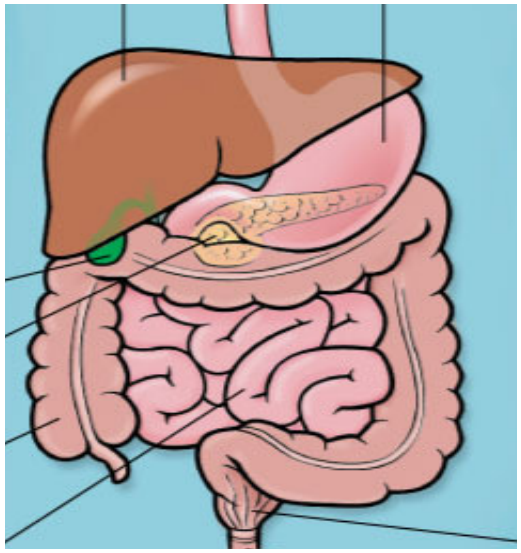
c. Cardiac muscle

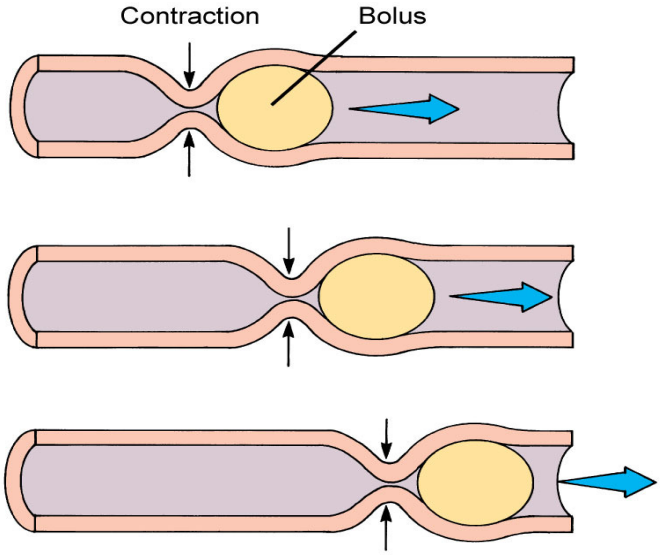


Tissues

A. Smooth muscle tissue Involuntary, non-striated muscle tissue that forms the walls of hollow organs and tubes. Controls the transport of materials, moving them along or restricting their flow.

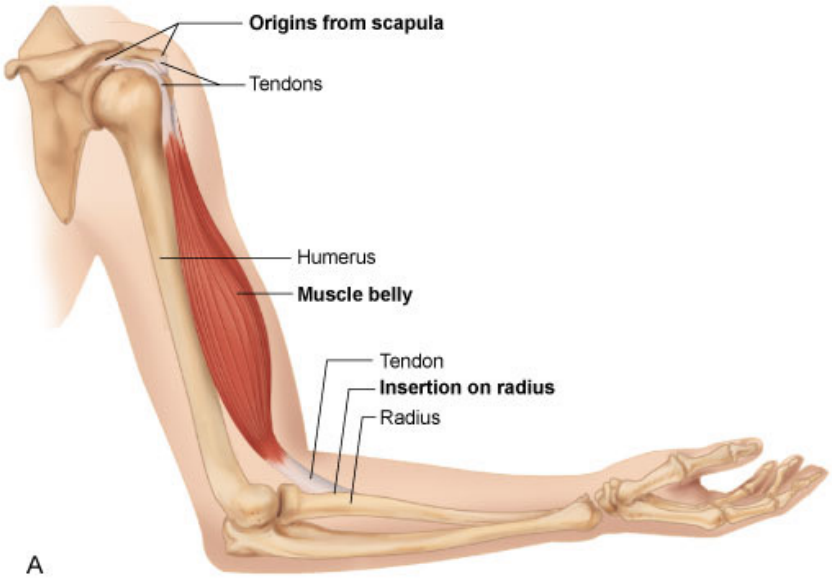
Examples: stomach, bladder, and blood vessels.





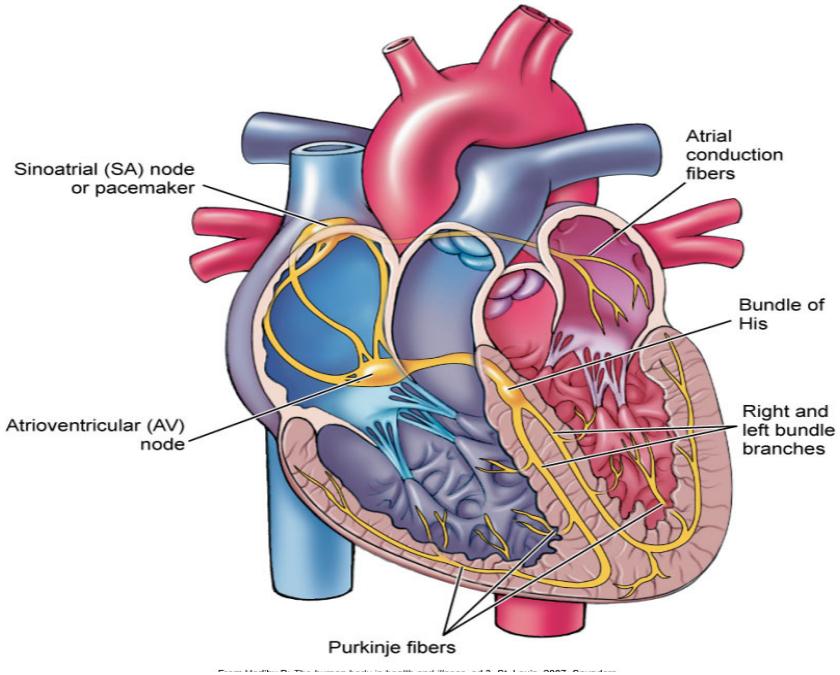
Tissues

B. Skeletal muscle tissue Voluntary, striated muscle tissue that is attached to bone or related structures and is stimulated by a nerve impulse to contract.



Tissues

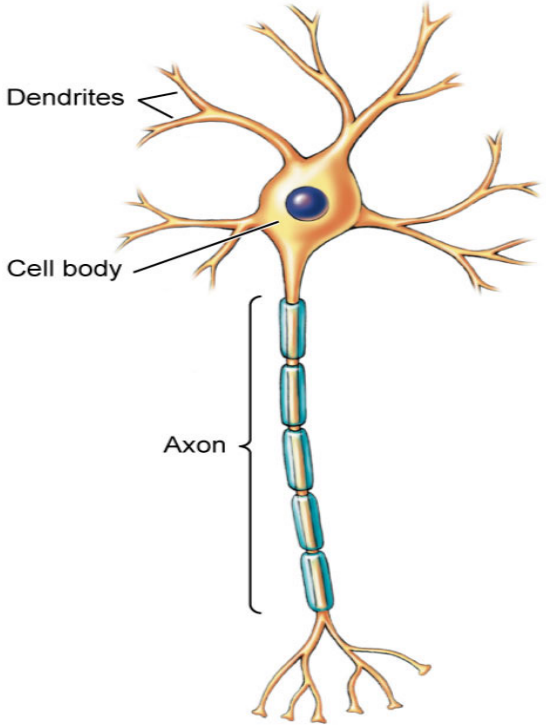
C. Cardiac muscle tissue Involuntary, striated muscle tissue located in the heart wall. Intercalated disks between each muscle cell synchronize the contraction to pump blood from the heart.



Tissues

IV. Nervous tissue Tissue that has the ability to detect and transmit _electrical_, signals by converting stimuli into nerve impulses.

Examples: brain and spinal cord.



Fill in the Blanks

Tissue types

1.

2.

3.

4.

Fill in the Blanks

Tissue types

1. Epithelial
2. Connective
3. Muscular
4. Nervous

Fill in the Blanks

Connective tissue types

1.

2.

3.

4.

Fill in the Blanks

Connective tissue types

1. Fibrous
2. Bone
3. Cartilage
4. Liquid

Fill in the Blanks

Fibrous connective tissue

1.

2.

3.

4.

Fill in the Blanks

Fibrous connective tissue

1. Loose
2. Adipose
3. Reticular
4. Dense

Fill in the Blanks

Cartilage connective tissue

1.

2.

3.

Fill in the Blanks

Cartilage connective tissue

1. Hyaline cartilage
2. Fibrocartilage
3. Elastic cartilage

Response Moment

I. **Epithelial** – covers and lines
    Lots of types to be discussed in integumentary system class

II. **Connective** – abundant and diverse
    Fibrous: loose, adipose, reticular, dense (regular and irregular)
    Bone: compact, spongy
    Cartilage: hyaline, fibrocartilage, elastic
    Liquid: blood, lymph

III. **Muscular** – movement - smooth, cardiac, skeletal.

IV. **Nervous** – transmit electrical impulses

6a A&P:
Introduction to the Human Body - Tissues