Lab 5: Connective Tissue

Reference: *Chapter 5.3*

OBJECTIVES:

- To describe the structure and function of connective tissues
- To identify various connective tissues based on their structure

A. Overview

1. What is the embryonic precursor to all connective tissue (see page 141)?

2. Identify the functions associated with connective tissue (CT).

B. Fibrous Connective Tissue

1. Name the three components common to CT. Describe the examples of each component.

1. _____ Examples:

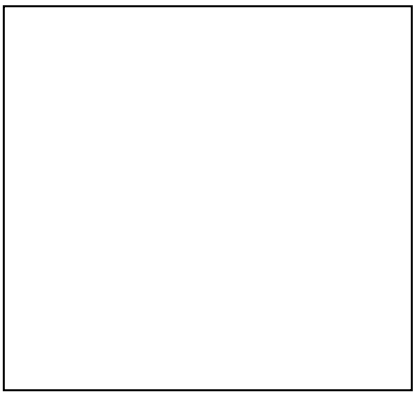
2. _____ Examples:

3. _____ Examples:

C. Observing Fibrous Connective Tissue

For each type of connective tissue, make a sketch, and describe its functions and note body locations.

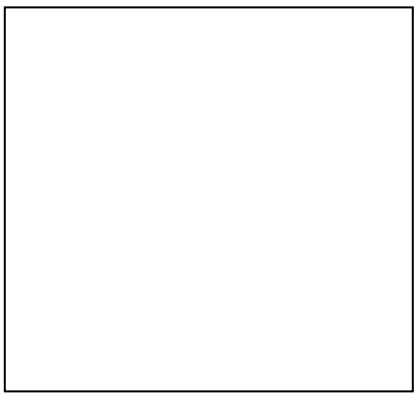
1. Loose connective tissue



Areolar CT (slide #1)

Associated functions:

Locations:

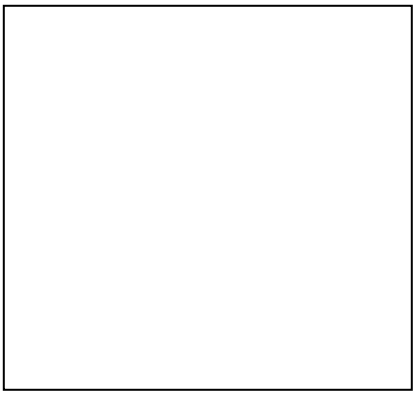


Reticular CT (slide #2)

Associated functions:

Locations:

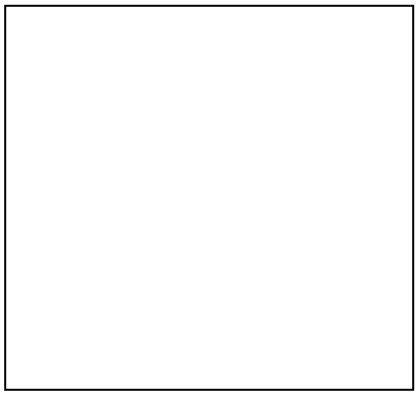
2. Dense connective tissue



Dense regular CT (slide #3)

Associated functions:

Locations:



Dense irregular CT (use the skin XC slide)

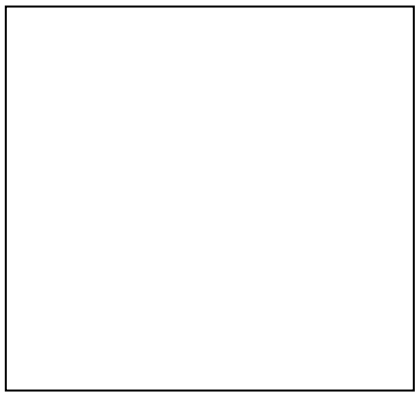
Associated functions:

Locations:

D. Adipose Tissue

1. Compare and contrast white and brown fat.

2. Observe a prepared microscope slide of adipose tissue. Sketch what you see to the right.



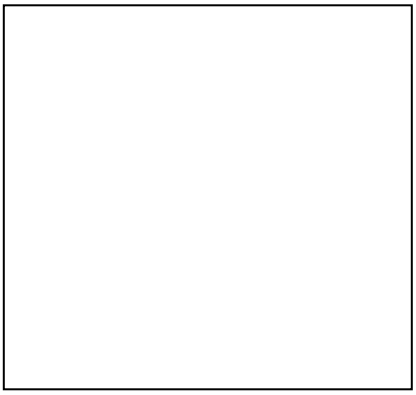
(slide #4)

E. Cartilaginous Connective Tissue

1. Describe the cells that are associated with cartilage. What is the ground substance associated with cartilage?

2. Explain why cartilage takes so long to heal if injured.

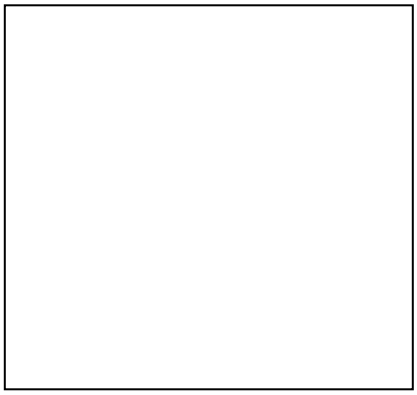
3. Observe the three types of cartilaginous CT and sketch what you see.



Hyaline cartilage (slide #5)

Associated functions:

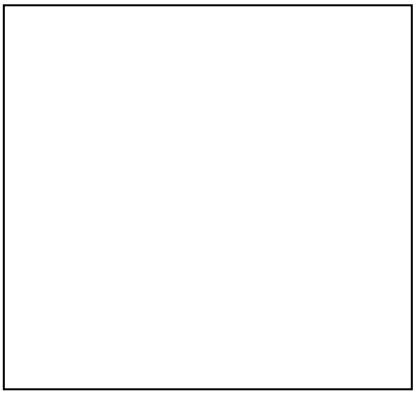
Locations:



Elastic cartilage (slide #6)

Associated functions:

Locations:



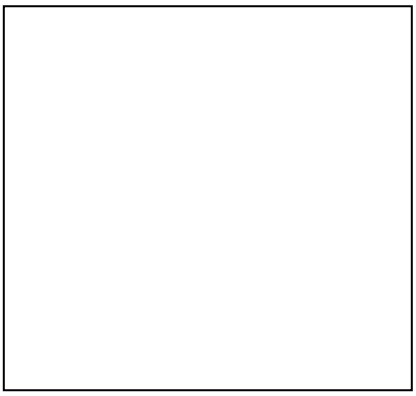
Fibrocartilage (slide #7)

Associated functions:

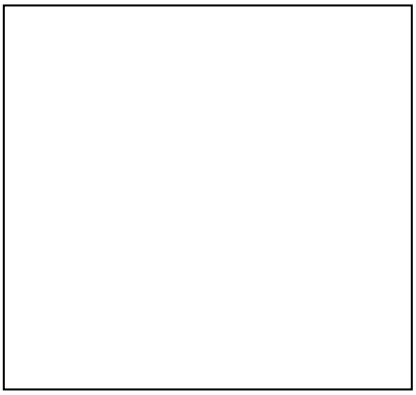
Locations:

E. Other Connective Tissues. We will be studying these vital connective tissue types in much greater detail later in A&P. For now, you should simply be able to identify them.

1. Bone tissue (slide #8)



2. Blood (slide #9)



F. Thinking critically about tissues

Compare and contrast epithelial tissue and connective tissue.