

Tissue Chapter 4

- A. Definition
- B. Tissue types
- C. Histology

I. Epithelial Tissue

- A. Functions
 - 1.glands
- B. Special Characteristics
 - 1.cellularity
 - 2.specialized contacts
 - 3.polarity
 - a. apical surface
 - b. basal surface
 - 4.Basement membrane
 - a. composition
 - 1)basal lamina
 - 2)reticular lamina
 - b. function
 - 5.regeneration
- C. Classification
 - a. simple
 - 1)squamous
 - 2)cuboidal
 - 3)columnar
 - b. stratified
- D. Types of Epithelia
 - 1.simple epithelia
 - a. simple squamous epithelium
 - a)endothelium
 - b. simple cuboidal epithelium
 - c. simple columnar epithelium
 - 2.stratified epithelia
 - a. stratified squamous epithelium
 - 1)keratinized
 - 2)non-keratinized
 - b. stratified cuboidal epithelium
 - c. stratified columnar epithelium
 - 3.Other
 - a. pseudostratified columnar epithelium
 - b. transitional epithelium
- E. Glands
 - 1.exocrine glands
 - a. unicellular
 - 1)mucin - mucus
 - b. multicellular exocrine glands
 - 1)classification by structure
 - a)duct
 - simple & compound
 - b)secretory unit
 - tubular
 - alveolar
 - tubuloalveolar
 - 2)classification by method of secretion
 - a)merocrine
 - b)holocrine
 - c)apocrine

II. Connective Tissue

A. Extracellular matrix

1. fibers
 - a. collagen fibers
 - b. elastic fibers
 - c. reticular fibers
2. ground substance
 - a. composition
 - 1) interstitial fluid
 - 2) cell adhesion proteins
 - 3) proteoglycans
 - b. function

B. Cells

- 1.... blasts
- 2.... cytes

III. Connective Tissue Divisions

A. Connective Tissue Proper

1. Loose Connective Tissue

- a. Areolar
 - 1) what it does
 - 2) structural features
 - a) fibers collagen and elastin
 - b) hyaluronic acid
 - 3) cells = fibroblasts
- b. Adipose
 - 1) what it does
 - 2) structural features
 - 3) cells = adipocytes
- c. Reticular
 - 1) what it does
 - 2) structural features
 - a) fibers = reticular fibers
 - 3) cells = reticular cells

2. Dense Connective Tissue

- a. Dense Regular Connective Tissue
 - 1) structural features
 - 2) cells = fibroblasts
 - 3) forms
 - a) tendons & ligaments
- b. Dense Irregular Connective Tissue
 - 1) structural features
 - 2) cells = fibroblasts
 - 3) forms
- c. Elastic
 - 1) structural features

B. Special connective tissues

1. Cartilage

1) cells = chondrocytes

a. hyaline cartilage

1) structural features

2) location

3) function

b. elastic cartilage

1) structural features

2) location

3) function

c. Fibrocartilage

1) structural features

2) location

3) function

2. Bone

3. Blood

C. Nervous Tissue

1. cells

a. neurons

b. glial cells

D. Muscle Tissue

1. cells

a. myofilaments

1) actin & myosin

2. kinds

a. skeletal muscle

b. cardiac muscle

a) intercalated discs

c. smooth muscle