

The Tissue Level of Organization

Text: Human Biology, by Mader. pp. 66-75

1. Introduction

A. General Terms

- i. Cell
- ii. Tissue
- iii. Histology

B. Tissue Types (p.66)

- i. Epithelial Tissue
- ii. Connective Tissue
- iii. Muscular Tissue
- iv. Nervous Tissue

2. Epithelial Tissue (pp. 72 - 76)

A. Structure

- i. Basement Membrane
- ii. Avascular
- iii. Stem Cells

B. General Epithelial Types

- i. Covering or Lining Epithelium
- ii. Glandular Epithelium (see p. 74)

C. Specific Examples of Epithelia

i. Simple Epithelium

a. Simple Squamous Epithelium

- Endothelium

ii. Simple Cuboidal Epithelium

iii. Simple Columnar Epithelium

iv. Ciliated Pseudostratified Columnar Epithelium

v. Transitional Epithelia

4. Connective Tissue

A. General Characteristics

i. Matrix

ii. Fibers

- Fibroblasts

a. Collagen Fibers

b. Elastic Fibers

c. Reticular Fibers

B. Examples of Connective Tissues (pp.66 - 68)

i. Loose Fibrous Connective Tissue (p. 67)

ii. Dense (Collagenous) Connective Tissue

iii. Adipose Tissue

C. Cartilage

- i. General Characteristics
 - a. Matrix
 - b. Avascular
 - ii. Types
 - a. Hyaline Cartilage
 - b. Elastic Cartilage
 - c. Fibrocartilage
5. Osseous Tissue (Bone)
- A. General Characteristics
 - i. Living
 - ii. Central Canal
 - iii. Canaliculi
 - ii. Lacunae
 - B. Formation
 - C. Types of Bones
 - i. Compact Bone
 - ii. Spongy Bone

6. Vascular Tissue (Blood) - To be covered at a later date

A. Components

- i. Plasma
- ii. Red Blood Cells
- iii. White Blood Cells
- iv. Platelets

7. Muscle Tissue - To be covered at a later date

A. Skeletal Muscle Tissue

- i. Striated
- ii. Voluntary

B. Cardiac Muscle Tissue

- i. Intercalated Discs.
 - a. Gap Junctions

C. Smooth Muscle Tissue

8. Nervous Tissue - To be covered at a later date

A. Neurons

B. Neuroglia