TISSUE I

Learning Objectives

1. Define the term tissue.
2. List the four types of tissue and briefly state their general function.
3. List the general function and characteristics of epithelial tissue.
4. Name and describe the various types of epithelial tissue.
5. State where you would find the various types of epithelial tissue in the body.
6. Differentiate between exocrine and endocrine glands.
7. Describe the structure of the different types of exocrine glands.

A. **TISSUE**:

Histology – Microscopic study of tissues

B. **GENERAL COMPOSITION OF TISSUE**

C. **TYPES OF TISSUE**: There are <u>four</u> basic types of tissue classified according to their function and structural characteristics. These will be discussed in detail later.

1. Epithelium *(discussed in detail later in this lecture)*
   - Covers the surface of body
   - Lines the interior of organs and body cavities
   - Major component of glands

2. Connective tissue *(discussed in detail in Tissue 2 lecture)*
   - Covers and protects organs and other body structures
   - Binds structures to one another
   - Provides metabolic needs

3. Muscle *(discussed in detail in a later lecture)*
   - Facilitates movement of bony skeleton
   - Involved in movement within organs

4. Nervous tissue *(discussed in detail in a later lecture)*
   - Nerve cells (neurons) provide stimulus that controls body activities
   - Glial cells support and protect neurons

EPITHELIAL TISSUE (Epithellum)

A. General characterlstics

-
-
-

There are two major types of epithelium: **Membranous and Glandular**
Their function, structure and location will be discussed in detail in this lecture.

B. MEMBRANOUS EPITHEIULM

1. Function
   - Protection: covers body surfaces
   - Lines body cavities
   - Sensory perception (receptors for pain, temperature, touch)
   - Absorption and secretion of nutrients
   - Filtration (eg. Kidney)

2. Structural Classification of Epithelium is based on:
   A. Number of cell layers
      1. simple
      2. stratified
      3. pseudostratified

   B. Shape of the cells
      1. squamous
      2. cuboidal
      3. columnar

C. Special characteristics
   e.g. Cilia:
   Keratin:

TYPES OF EPITHELIUM

Type	Appearance	Location
simple squamous		
simple cuboidal		
simple columnar		
stratified squamous		
stratified cuboidal		
stratified columnar		
pseudostratified ciliated columnar		
transitional		