

Department of Anesthesia Techniques Title of the lecture:-



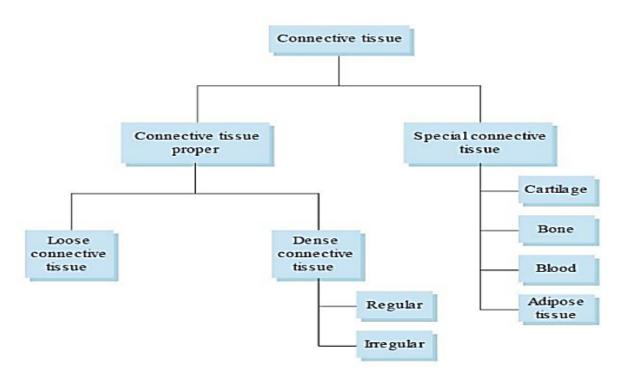
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# **Types of Connective Tissue**

- Connective tissue is classified based on composition of its cellular and extracellular components and their arrangement.
- Connective tissue is broadly classified into two groups:
  - A. Connective tissue proper B. Special connective tissue

Connective tissue proper includes loose (areolar) connective tissue and dense (regular and irregular) connective tissue.

- Special connective tissue is designed for specific functions and hence is present at specific locations. It includes adipose tissue, cartilage, bone, and blood.





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## **1-Loose Connective Tissue (loose areolar tissue)**

• It consists of loosely arranged collagen fibres and abundant ground substance. Elongated nuclei of fibroblasts can be seen.

• It distorted easily; hence, it allows the tissue to move freely.

• Example: Lamina propria and submucosa of various tracts (respiratory, gastrointestinal, urinary).

### **2-Dense Connective Tissue**

• It provides tensile strength to tissue. It also offers protection to underlying tissue.

• It has more fibres and less ground substance and cells.

• Based on orientation of fibres, it is of two types—dense regular and dense irregular connective tissues.

#### **A-Dense Regular Connective Tissue**

- Connective tissue is arranged in a definite pattern.
- Collagen fibres are aligned uniformly. This uniform alignment helps in transferring mechanical force.
- Example: tendons and ligaments.

#### **B-Dense Irregular Connective Tissue**

- Collagen fibres are arranged irregularly.
- This tissue provides resistance to mechanical stress from all directions.
- Example: Reticular layer of the dermis