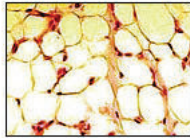


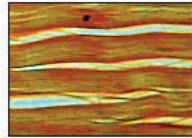
# CONNECTIVE TISSUES



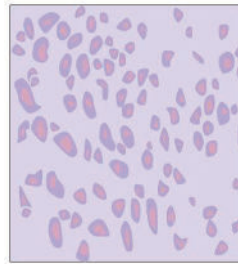
Areolar connective tissue



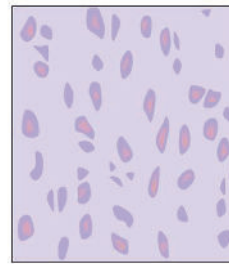
Adipose tissue



Fibrous connective tissue



A. Elastic Cartilage



B. Hyaline Cartilage



C. Fibrous Cartilage

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| Type                                       | Cells   | Fibers  | Matrix   | Function   |
|--|---|---|--|--|
| Areolar (Loose)                            | <ul style="list-style-type: none"> <li>Fibroblasts</li> <li>Macrophages</li> <li>Mast cells                             <ul style="list-style-type: none"> <li>Contain heparin &amp; histamine</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>Collagen</li> <li>Elastic</li> <li>Equal distribution</li> </ul> | <ul style="list-style-type: none"> <li>ECF + proteoglycans = weak gel</li> </ul>   | <ul style="list-style-type: none"> <li>Connects skin to underlying structures</li> <li>Fills spaces between organs</li> <li>Surrounds muscles, ducts of exocrine glands, nerves and blood vessels</li> <li>Protection from bacteria</li> </ul>   |
| Adipose                                    | <ul style="list-style-type: none"> <li>Adipocytes                             <ul style="list-style-type: none"> <li>"Signet ring" formation due to location of nucleus</li> </ul> </li> </ul>                        | <ul style="list-style-type: none"> <li>Limited amount of white collagenous fibers</li> </ul>            | <ul style="list-style-type: none"> <li>Weak gel</li> </ul>   | <ul style="list-style-type: none"> <li>Fat energy storage</li> <li>Cushion and insulation</li> <li>Protects internal organs</li> <li>Connects internal organs</li> </ul>   |
| White Fibrous Connective Tissue            | <ul style="list-style-type: none"> <li>Fibroblasts</li> </ul>   | <ul style="list-style-type: none"> <li>White fibers</li> </ul>  | <ul style="list-style-type: none"> <li>Weak gel (limited amount)</li> </ul>  | <ul style="list-style-type: none"> <li>Tendons (muscle to bone)</li> <li>Ligaments (bone to bone)</li> <li>Aponeuroses (muscle to muscle)</li> <li>Fascia covers muscles</li> <li>Sclera</li> <li>Scar tissue</li> </ul>   |
| Yellow Fibrous Connective Tissue (Elastic) | <ul style="list-style-type: none"> <li>Fibroblasts</li> </ul>   | <ul style="list-style-type: none"> <li>Yellow fibers (elastin)</li> </ul>                               | <ul style="list-style-type: none"> <li>Weak gel (limited amount)</li> </ul>  | <ul style="list-style-type: none"> <li>Ligaments between vertebrae (ligamentum flavum)</li> <li>Vocal cords</li> <li>Walls of aorta &amp; large arteries</li> </ul>  |
| Reticular                                  | <ul style="list-style-type: none"> <li>Reticulocytes</li> </ul>   | <ul style="list-style-type: none"> <li>Reticular fibers (thin, collagenous)</li> </ul>                  | <ul style="list-style-type: none"> <li>Weak gel</li> </ul>   | <ul style="list-style-type: none"> <li>Form a stroma and provide structural support</li> <li>Found in liver, spleen and lymphoid organs</li> </ul>   |
| Cartilage                                  | <ul style="list-style-type: none"> <li>Fibroblasts mature into chondroblasts</li> <li>Chondroblasts mature into chondrocytes</li> </ul>   | <ul style="list-style-type: none"> <li>Elastin or collagenous (yellow or white)</li> </ul>              | <ul style="list-style-type: none"> <li>Chondrin - semisolid</li> <li>Contains Chondroitin or chondroitin sulfate + proteins (proteoglycans)</li> </ul> | <ul style="list-style-type: none"> <li>Hyaline cartilage - structure of fetal bones, nose, trachea/ bronchi and joints</li> <li>Fibrocartilage - shock absorber between pubic symphysis and intervertebral discs</li> <li>Elastic cartilage - found in ears and is flexible</li> </ul> |