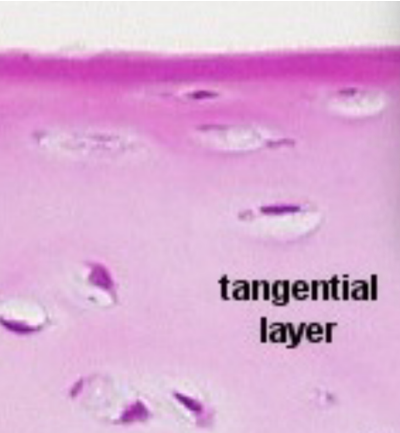


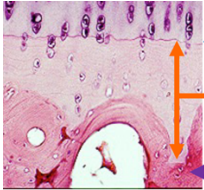


Fibrous Joints	Cartilaginous Joints	Synovial Joints
<p>Bones joined by fibrous tissue Little to no movement No joint cavity</p> <p>Subtypes</p> <ol style="list-style-type: none"> 1. Sutures- Bones joined by fibrous tissue (skull) Little to no movement 2. Syndesmosis Bones are held together by a cord or sheet of dense fibrous connective tissue 3. Gomphosis Peg-in-socket fibrous joint (periodontal ligament) 	<p>Articulation filled with cartilage Immovable to slightly movable No joint cavity</p> <p>Subtypes</p> <ol style="list-style-type: none"> 1. Primary Cartilaginous Joints: Synchondroses Hyaline cartilage unites the bones Ex: Epiphyseal disk, rib cage and sternum 2. Secondary Cartilaginous Joints: Fibrocartilaginous Hyaline and fibrocartilage unite the bones Ex: Intervertebral disk, pubic/pelvis symphysis *Joint permits little compression or stretching 	<p>Fluid filled joint cavity Freely movable</p> <p>Components of a synovial joint</p> <ul style="list-style-type: none"> - Bone - Capsule - Synovial Membrane - Articular cartilage - Bone - Patella - Synovial fluid - Fat - Meniscus

Articular Cartilage Zones

Superficial (tangential) Zone	Transitional (middle) Zone	Deep (radial) Zone	Zone of Calcified Cartilage
<p>Thinnest Zone (3um thick)</p> <p>*Abundant parallel collagen</p> <p>Two layers</p> <p>-Lamina splendens: Sheet of fine fibrils and no cells</p> <p>-Layer of flattened ellipsoidal cells (secrete lubricating molecules)</p>	<p>Cells are more round</p> <p>Large diameter collagen fibrils</p> <p>Collagen fibers take an oblique course</p>	<p>Cells are rounder and aligned in columns</p> <p>Largest diameter collagen fibers</p> <p>Collagen fibers are perpendicular to the surface</p>	<p>Tide mark</p> <p>Calcified cartilage</p> <p>Subchondral bone</p>
			 <div style="display: flex; flex-direction: column; align-items: flex-end;"> <div style="display: flex; align-items: center; margin-bottom: 5px;"> Tide Mark </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> Calcified cartilage </div> <div style="display: flex; align-items: center;"> Subchondral bone </div> </div>