

SNS COLLEGE OF PHARMACY AND HEALTH SCIENCES



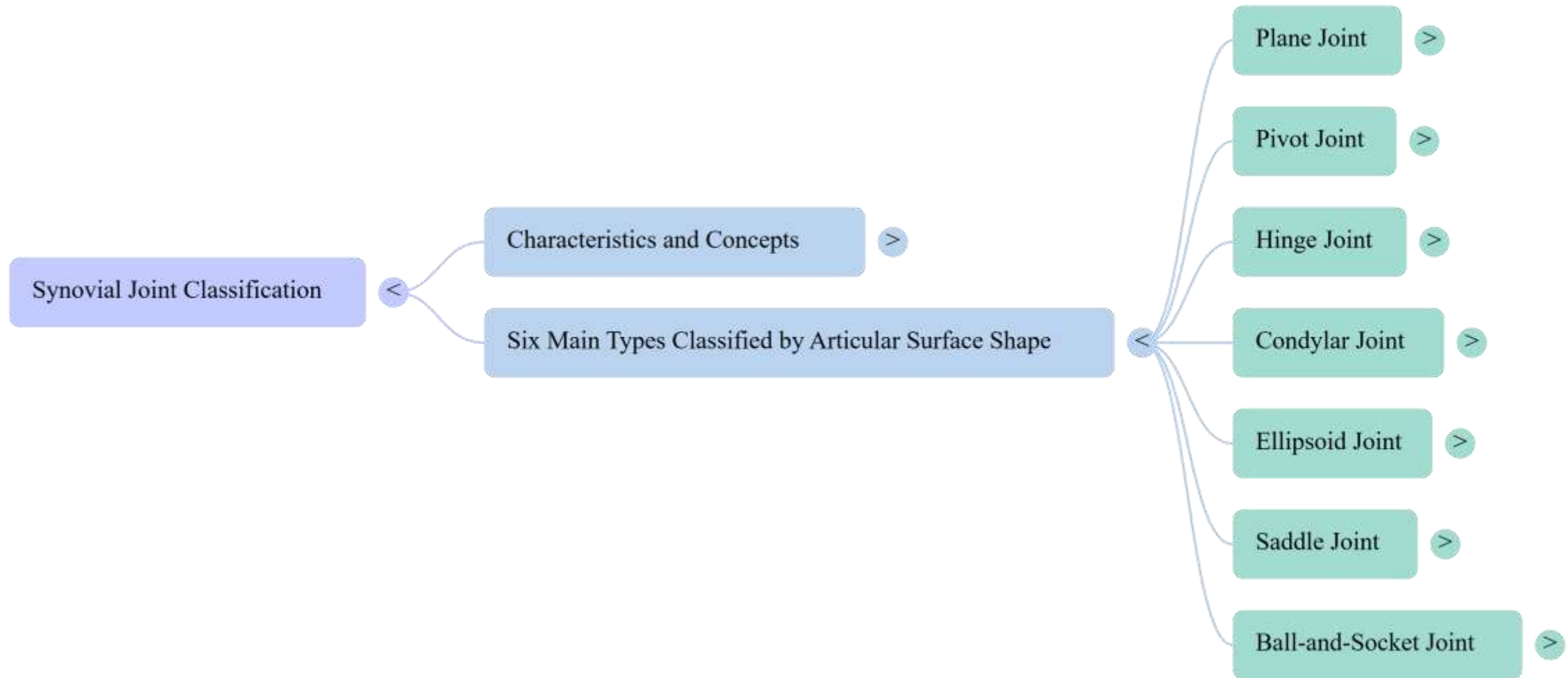
Affiliated To The Tamil Nadu Dr. MGR Medical University, Chennai
Approved by Pharmacy Council of India, New Delhi. Coimbatore -641035

COURSE NAME : HUMAN ANATOMY & PHYSIOLOGY (BP301 T)

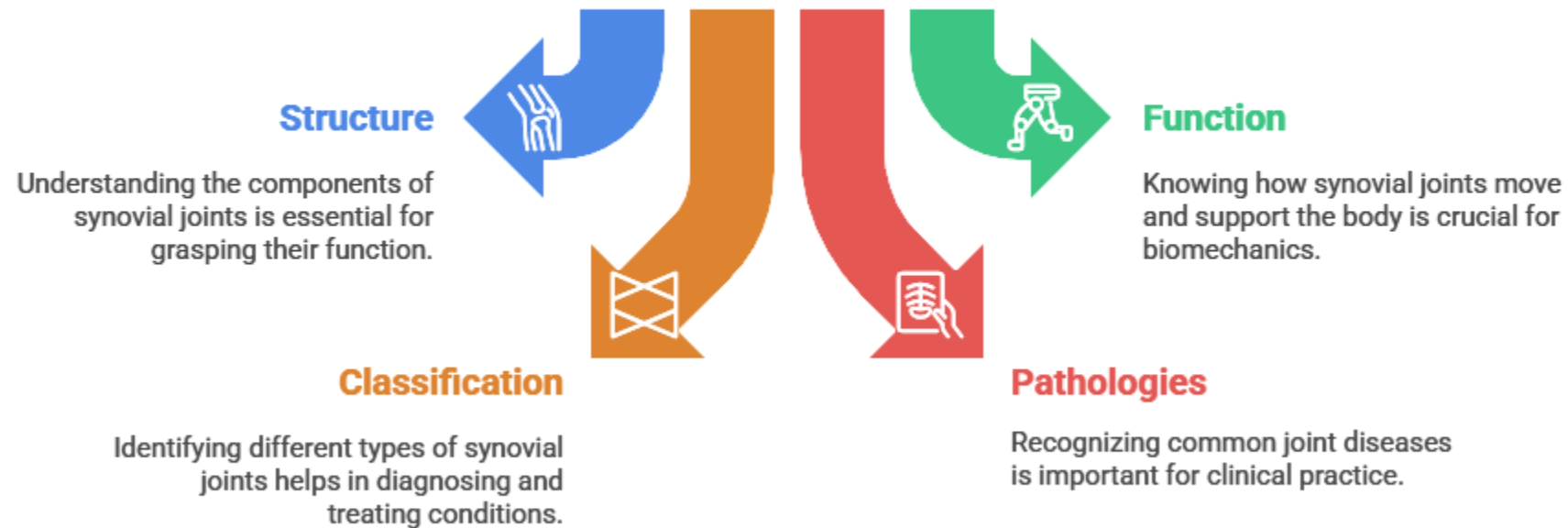
YEAR : I SEM/I YEAR

TOPIC : SYNOVIAL JOINT

MIND MAP

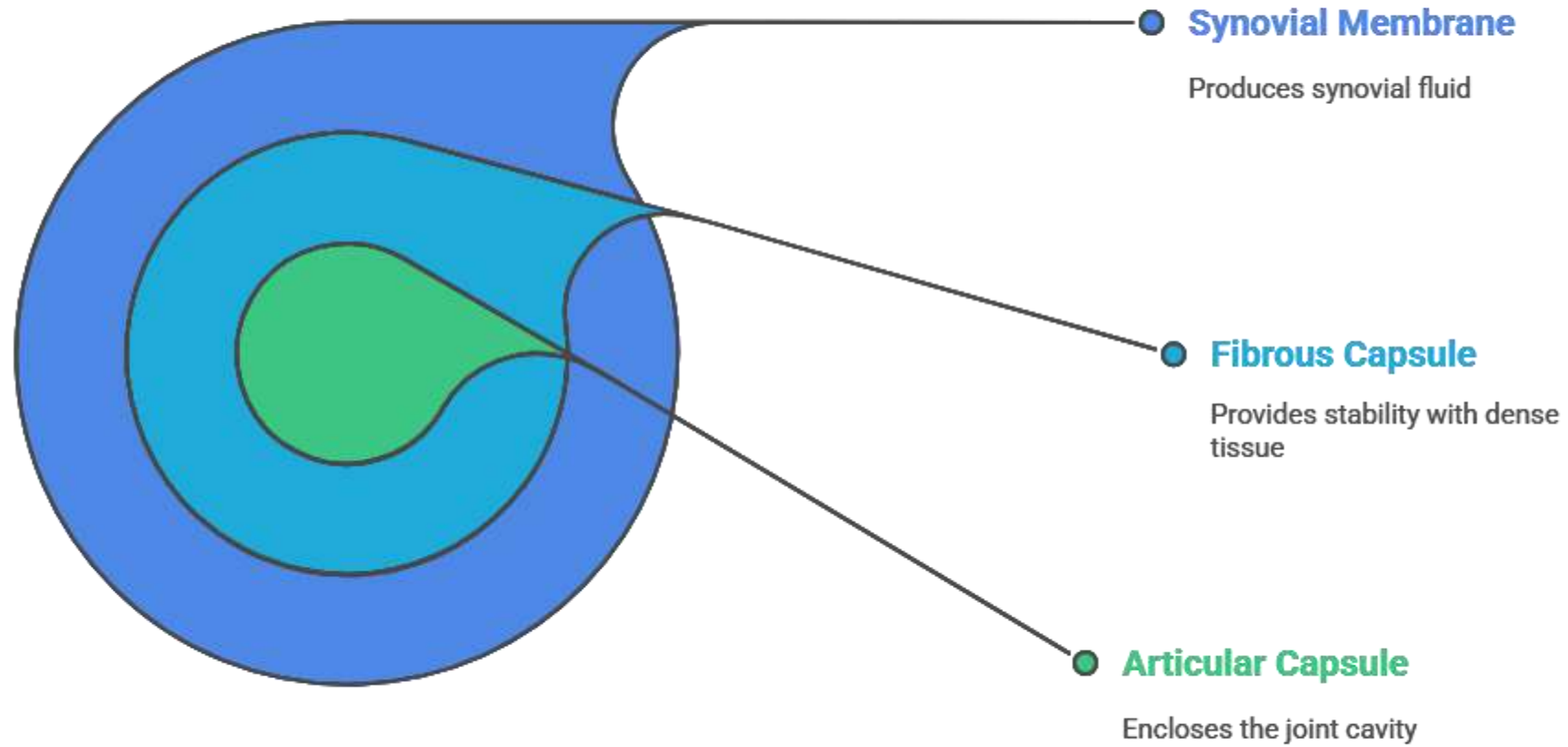


What aspect of synovial joints should I focus on?



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Articular Capsule Structure



Components of the Synovial Membrane

Vascularization

The presence of blood vessels that supply nutrients to the membrane



Synoviocytes

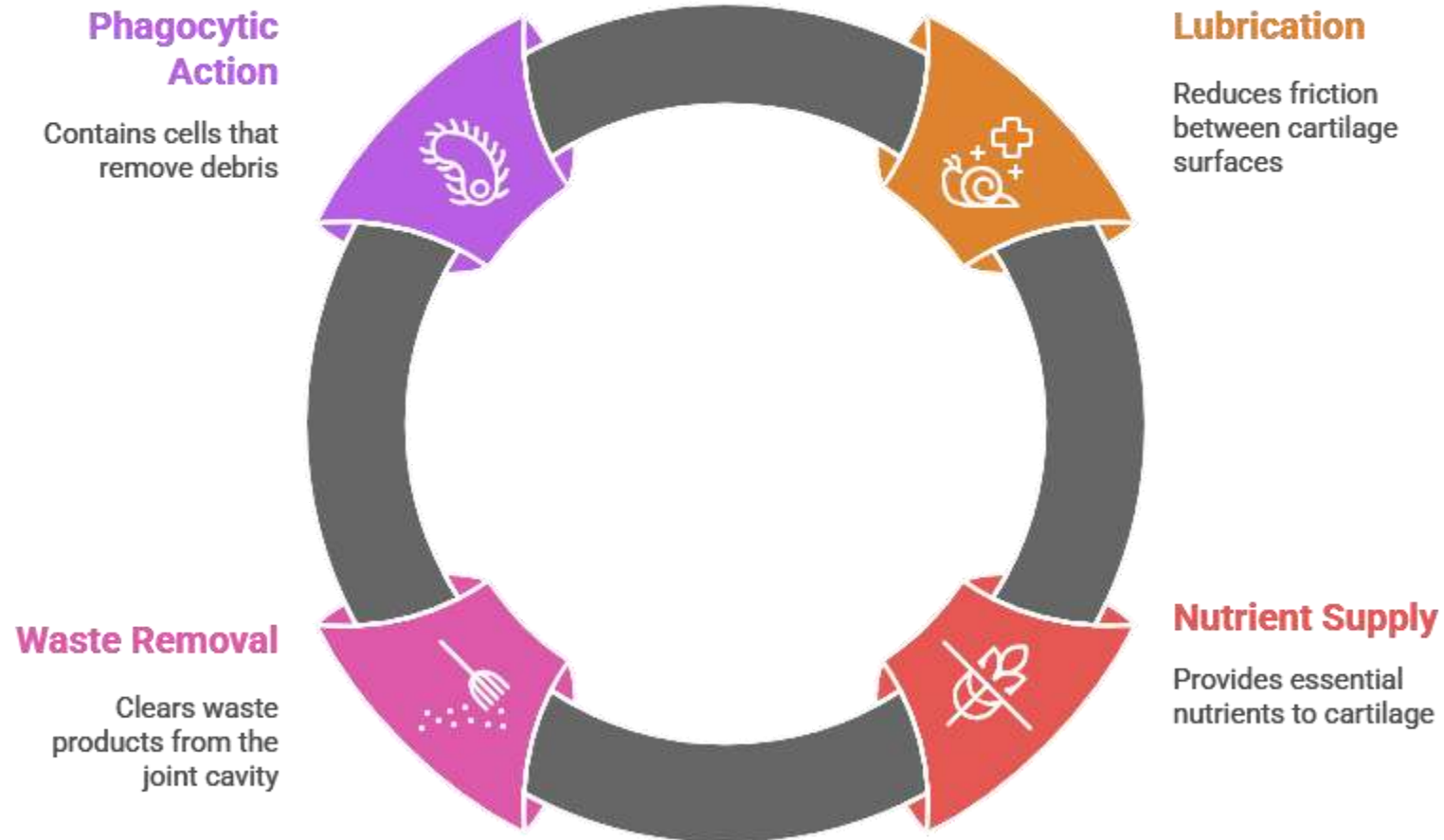
Cells responsible for producing synovial fluid components

Hyaluronic Acid

A key component of synovial fluid that provides lubrication

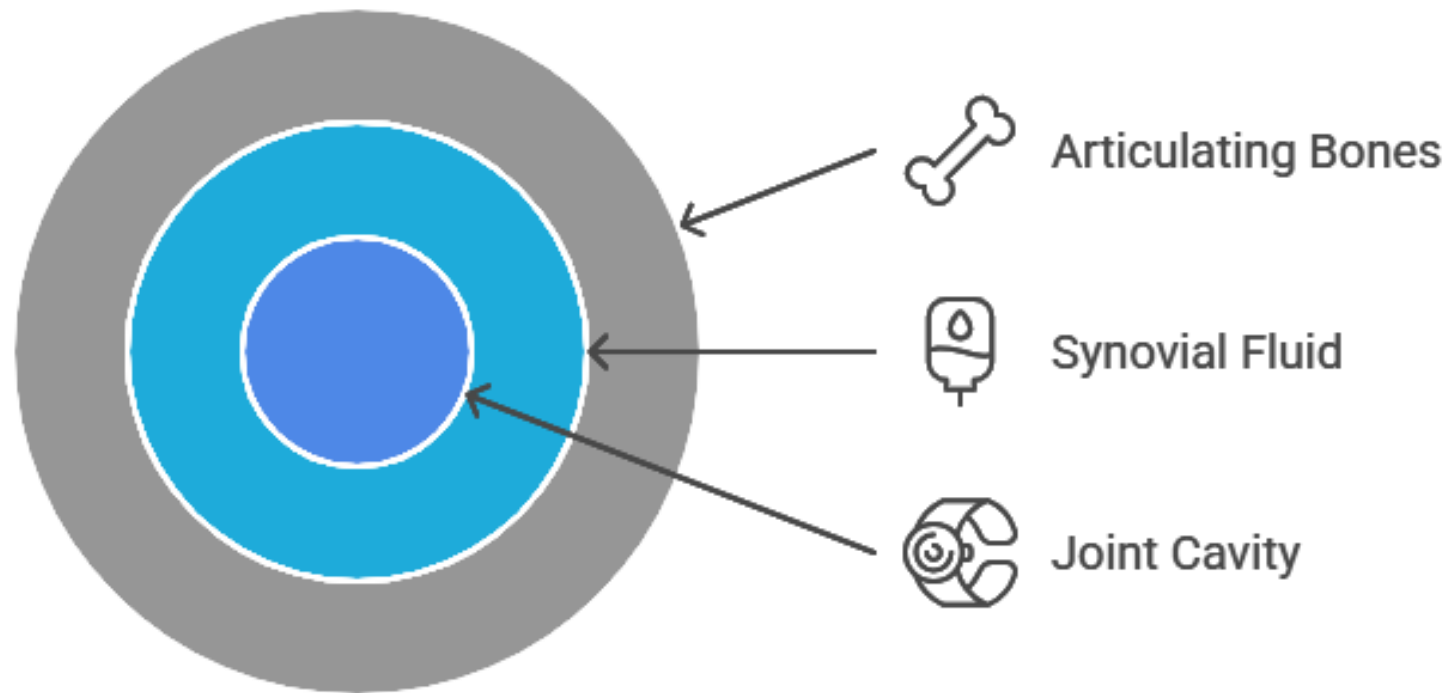
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The Role of Synovial Fluid in Joint Health



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Joint Cavity and Synovial Fluid Function

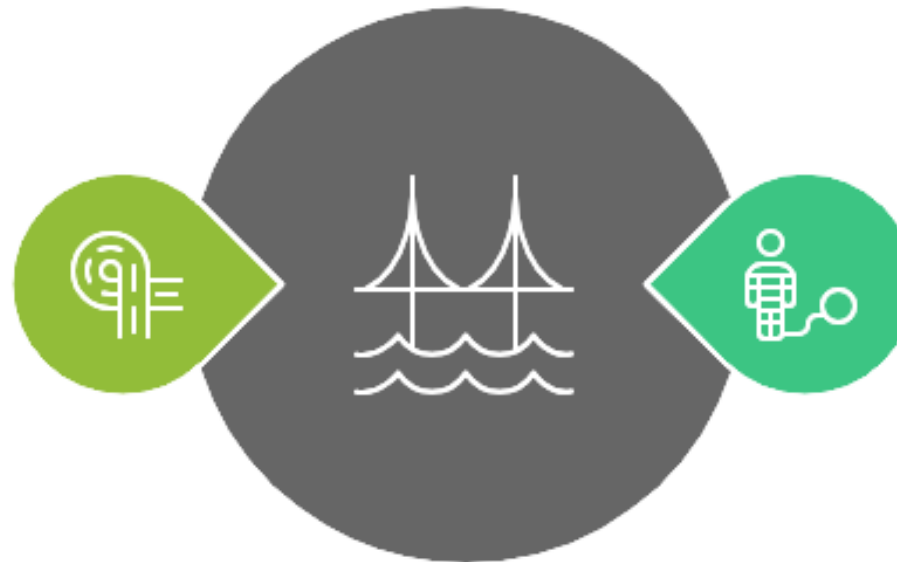


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Ligament's Role in Joint Stability

Extrinsic Ligaments

Ligaments separate from the capsule

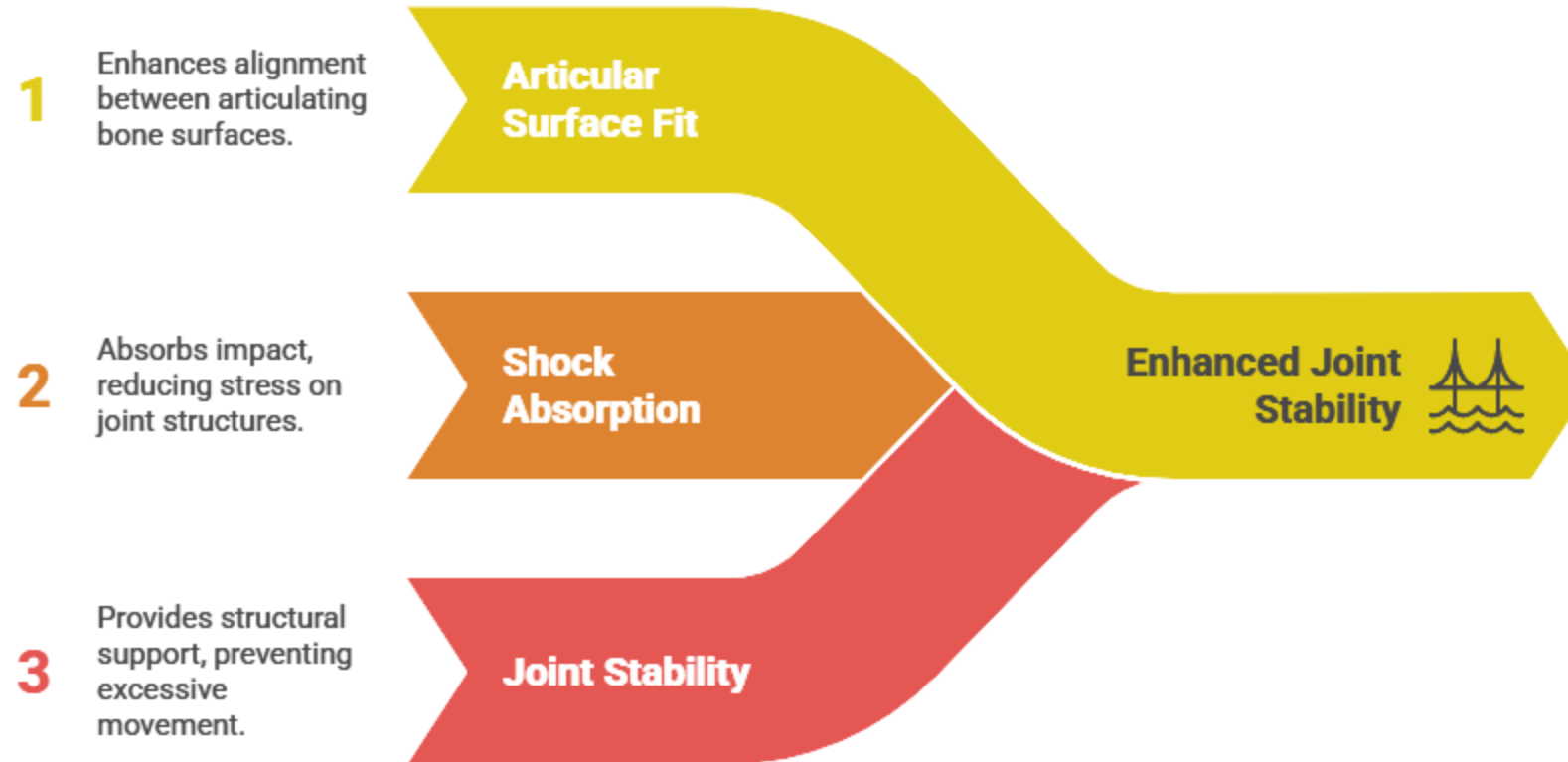


Intrinsic Ligaments

Ligaments that are part of the articular capsule

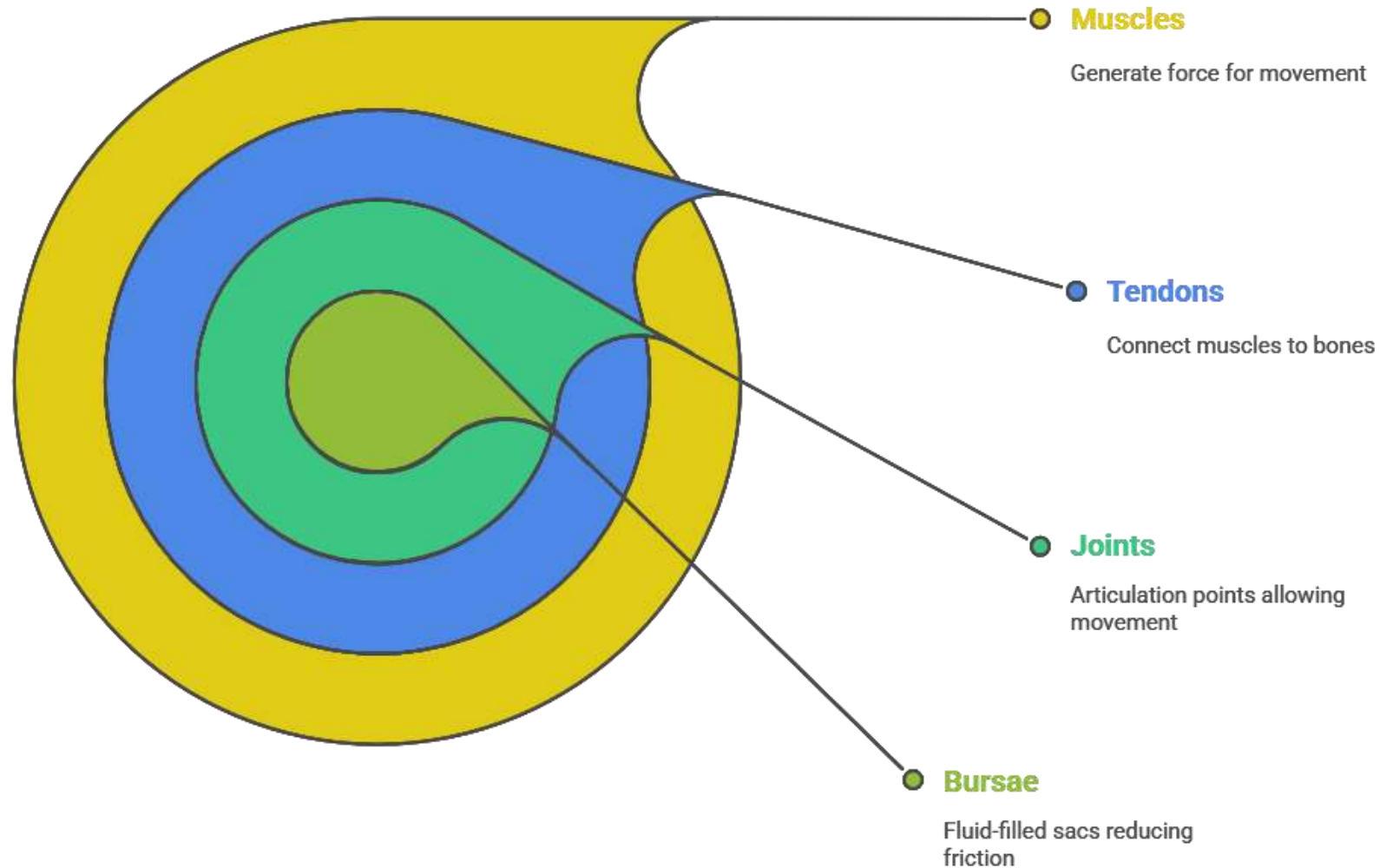
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The Role of Fibrocartilage in Synovial Joints

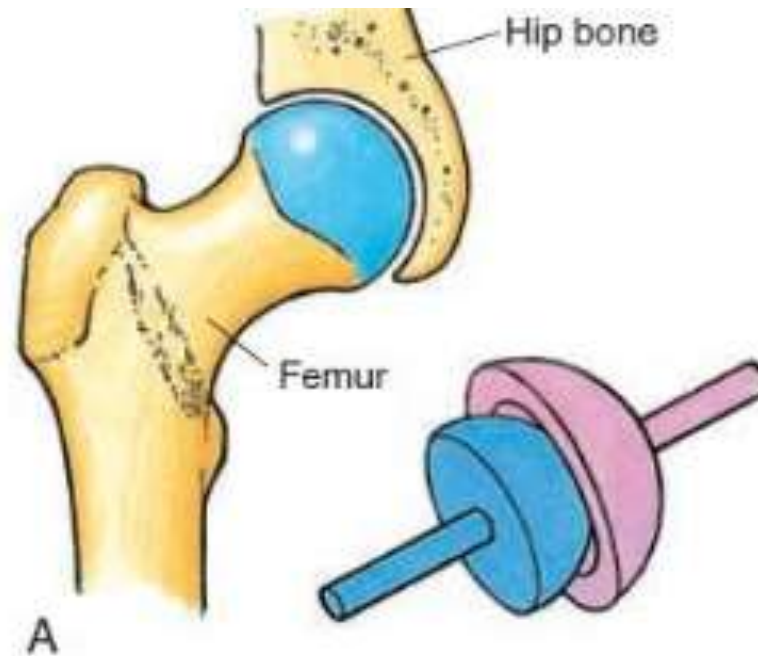


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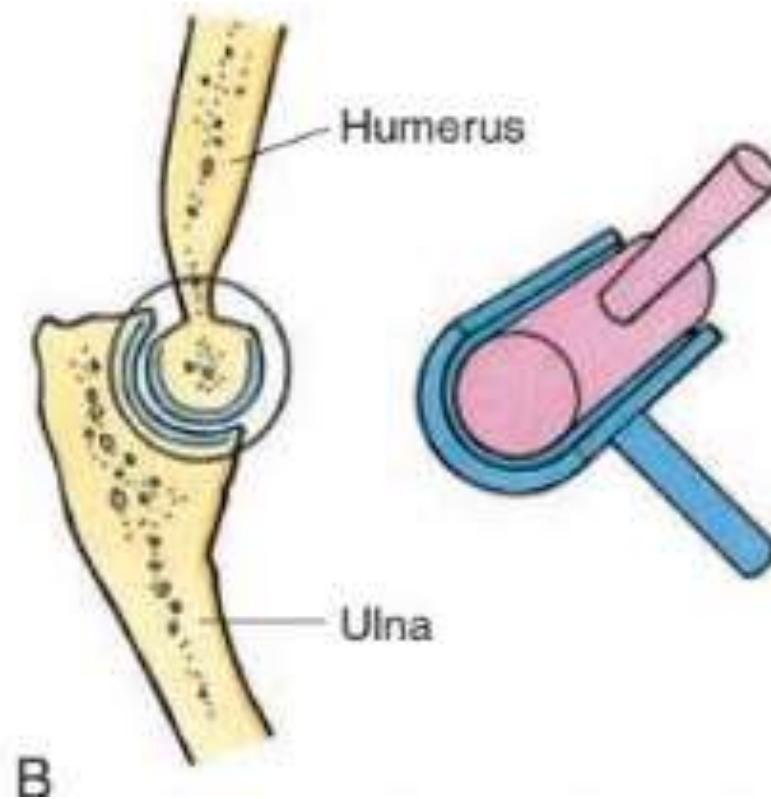
Bursae Function in Synovial Joints



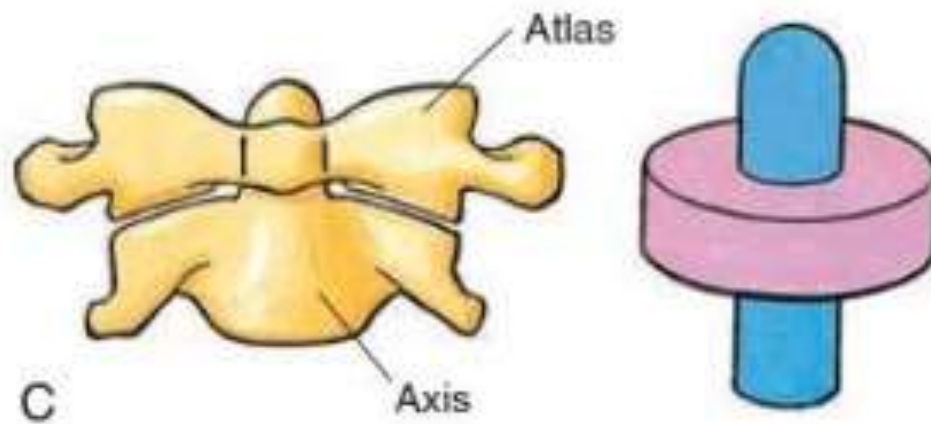
BALL AND SOCKET JOINTS



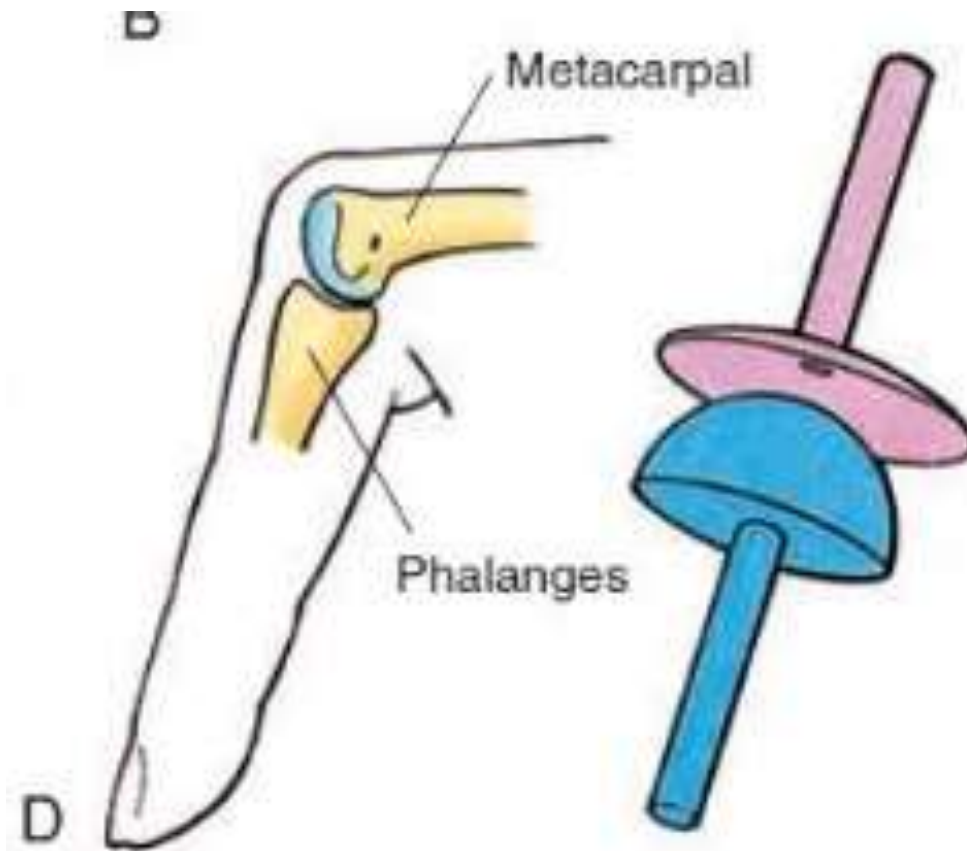
HINGE JOINTS



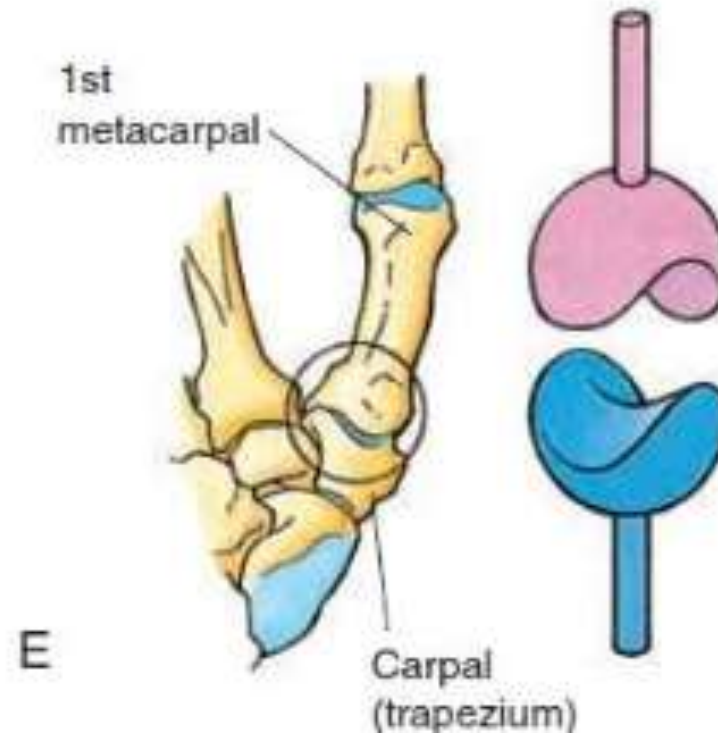
PIVOT JOINTS



CONDYLOID JOINTS



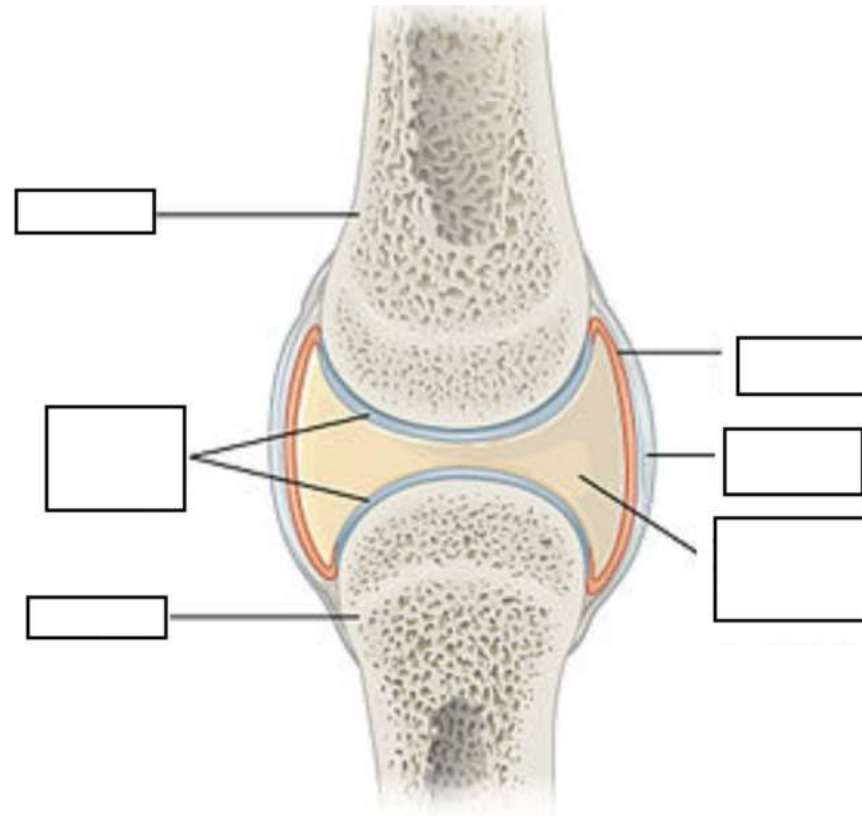
SADDLE JOINTS





CLASS ASSESSMENTS

Label the parts of synovial joints?





CLASS ASSESSMENTS

Find the type of joints?





CLASS ASSESSMENTS

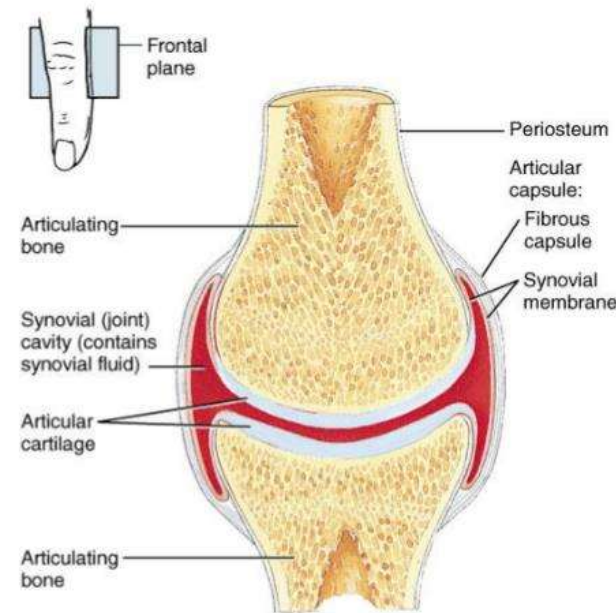
Find the type of joints?



SUMMARY

Synovial Joints

- Synovial cavity separates articulating bones
- Freely moveable (diarthroses)
- Articular cartilage
 - reduces friction
 - absorbs shock
- Articular capsule
 - surrounds joint
 - thickenings in fibrous capsule called ligaments
- Synovial membrane
 - inner lining of capsule
 - secretes synovial fluid containing hyaluronic acid (slippery)
 - brings nutrients to articular cartilage



9-7

REFERENCE

- ✓ Essentials of Medical Physiology, K. Sembulingam & P. Sembulingam (Jaypee Brothers Medical Publishers)
- ✓ A Textbook of Human Anatomy and Physiology-I, SIA Publishers
- ✓ Human Anatomy & Physiology Gerard J. Tortora & Bryan H. Derrickson (Wiley)
- ✓ Ross and Wilson anatomy and physiology in health and illness, Anne Waugh & Allison Grant.

