

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 AND PHYSIOLOGY (ER20-14T)

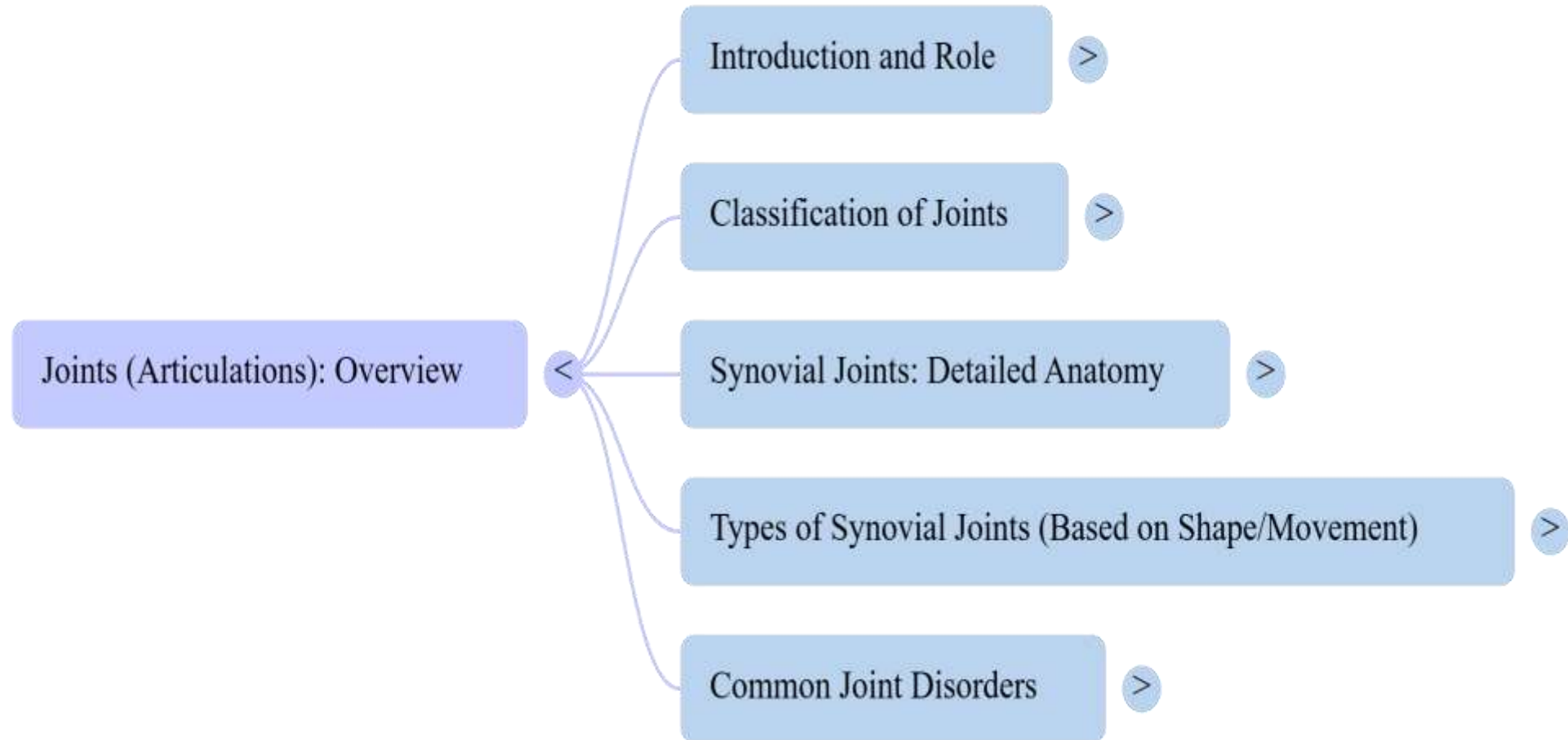
I D. PHARM

TOPIC 1 : JOINTS

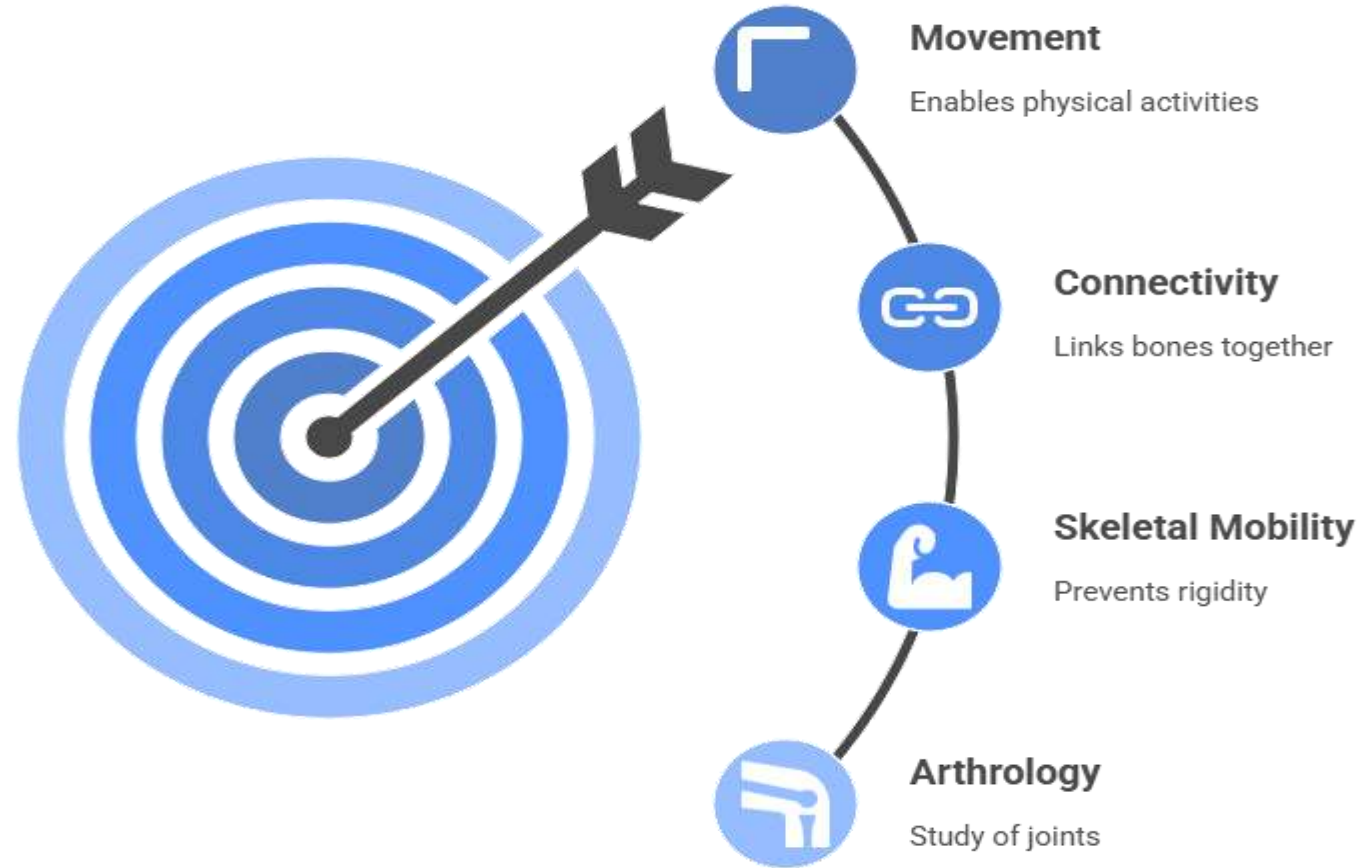
DESIGN THINKING IN JOINTS

1. Empathize : Understand how joints help in body movement and flexibility.
2. Define : Define what a joint (articulation) is — the connection between two or more bones.
3. Ideate : Brainstorm ways to visualize and remember different joints.
4. Prototype : Create diagrams, posters, or clay models of joints.
5. Test : Evaluate your understanding by identifying joints on skeleton models or answering quiz questions.

MINDMAP FOR JOINTS



Introduction- Joints



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Joints classification

Cartilaginous Joints

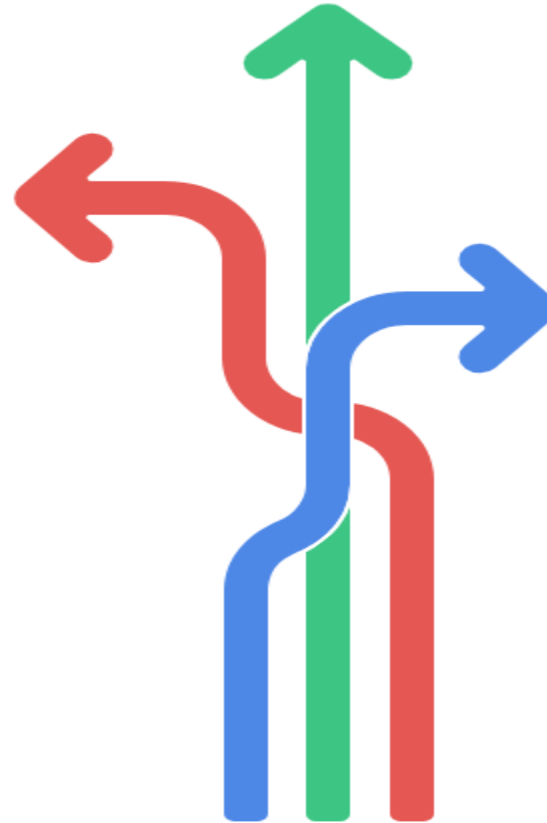
United by cartilage, providing some flexibility and shock absorption.

Fibrous Joints

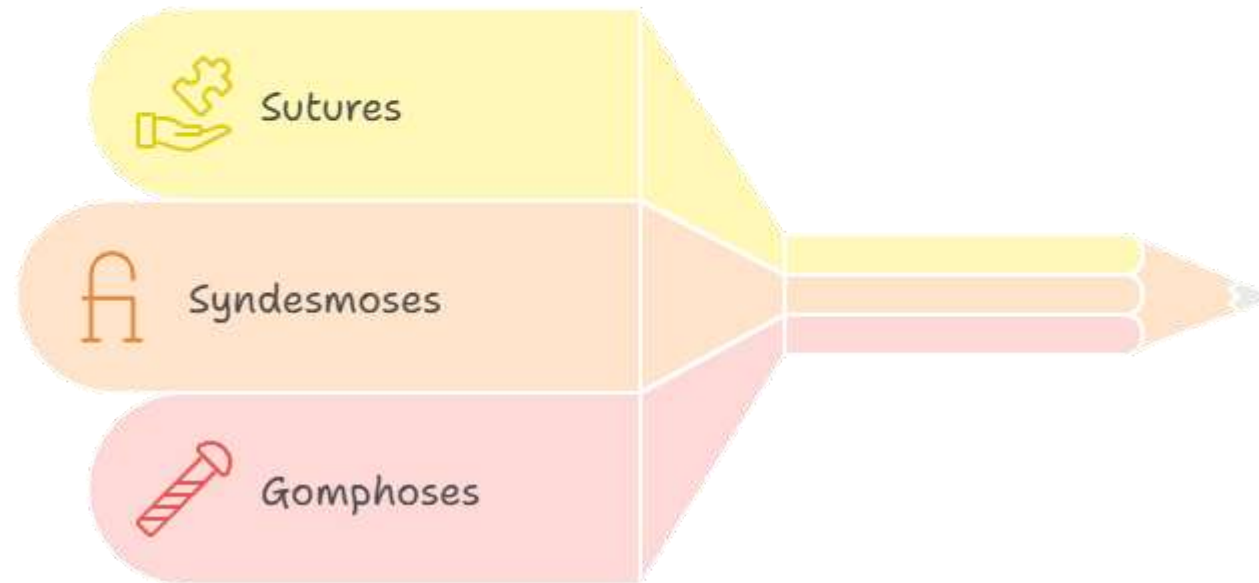
Connected by dense connective tissue, offering stability but limited movement.

Synovial Joints

Characterized by a fluid-filled cavity, allowing for a wide range of motion.

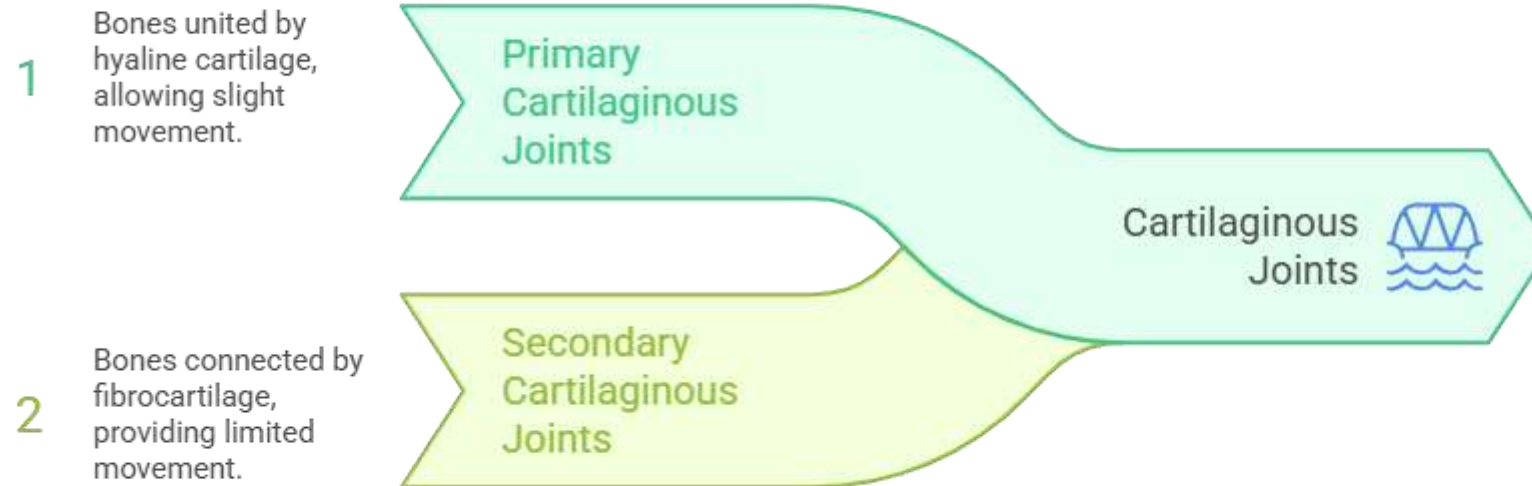


Types of Fibrous Joints



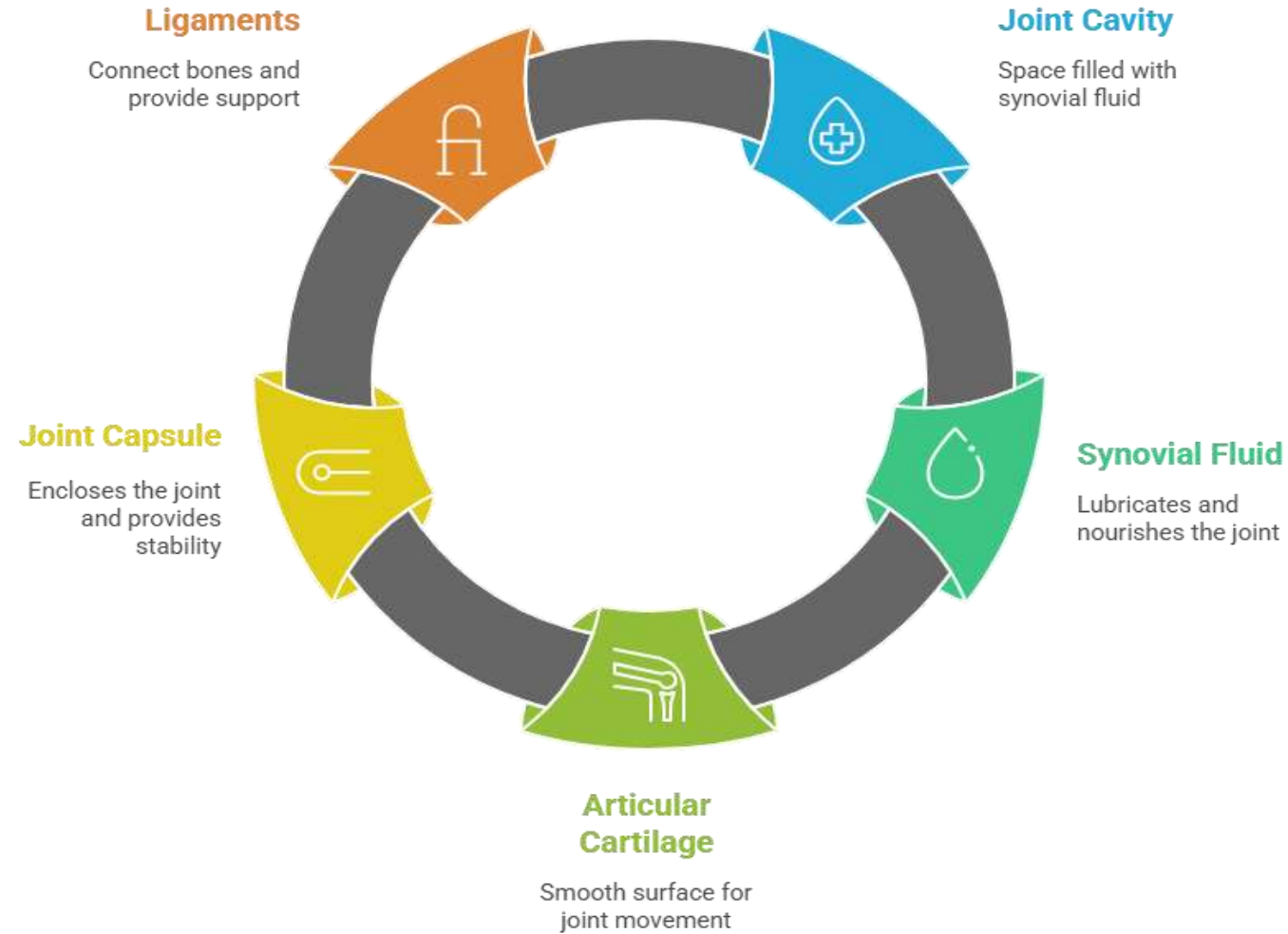
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Types of Cartilaginous Joints

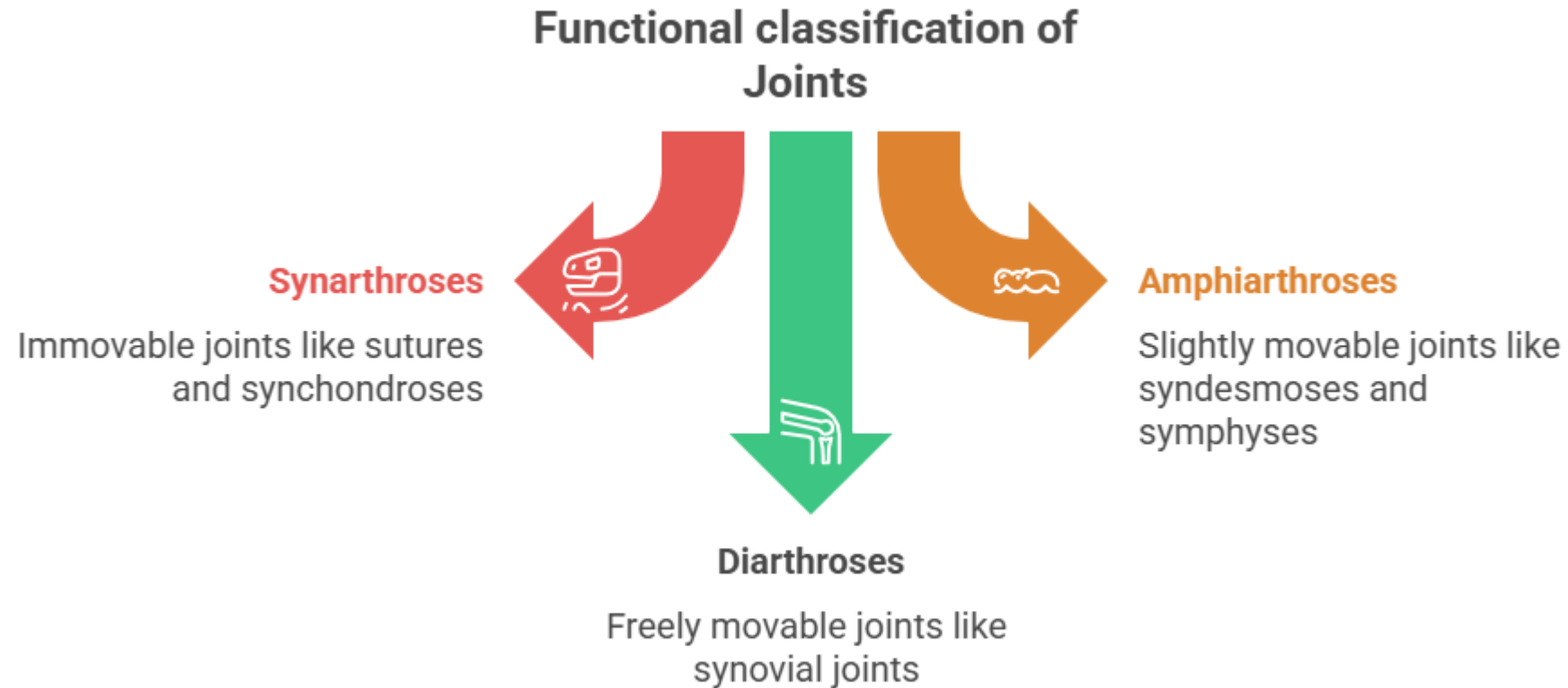


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Synovial Joints

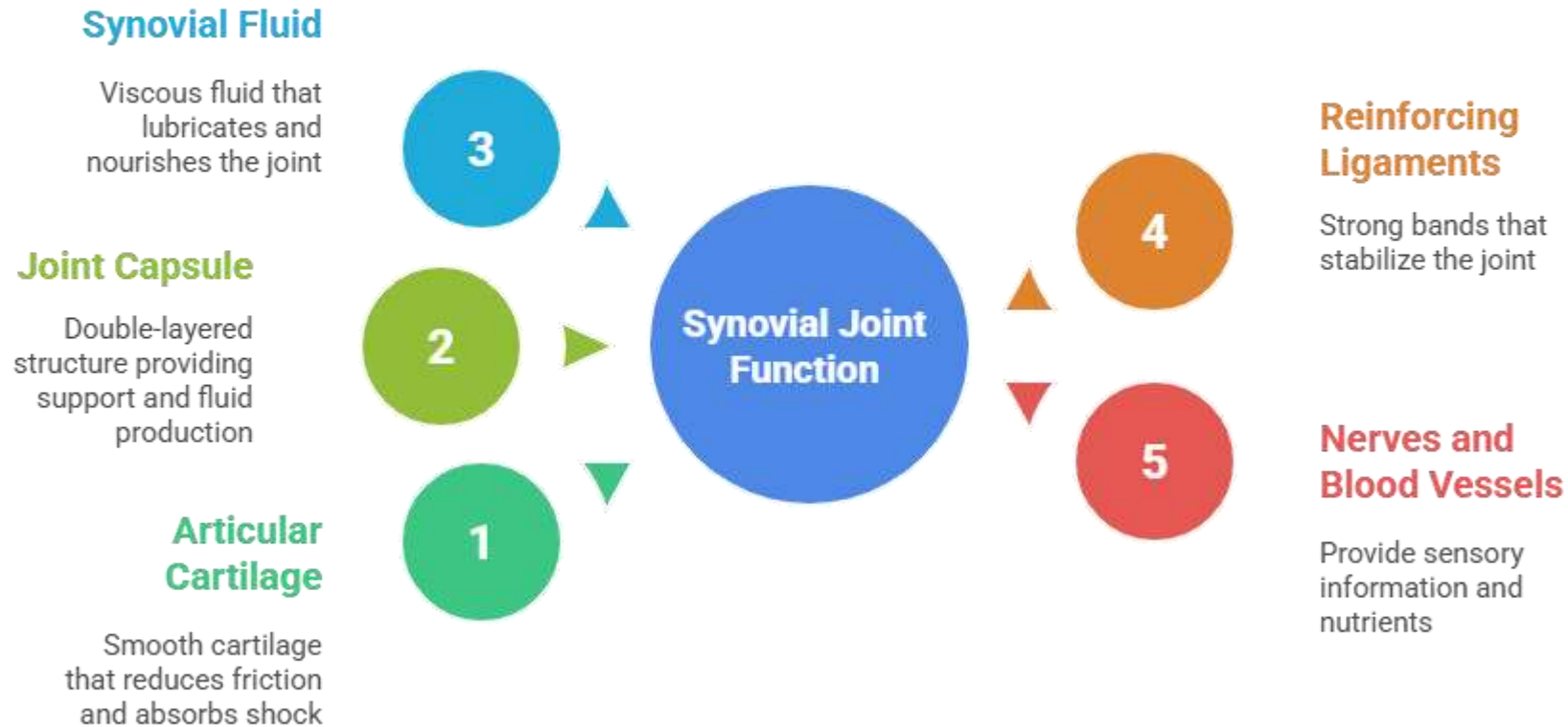


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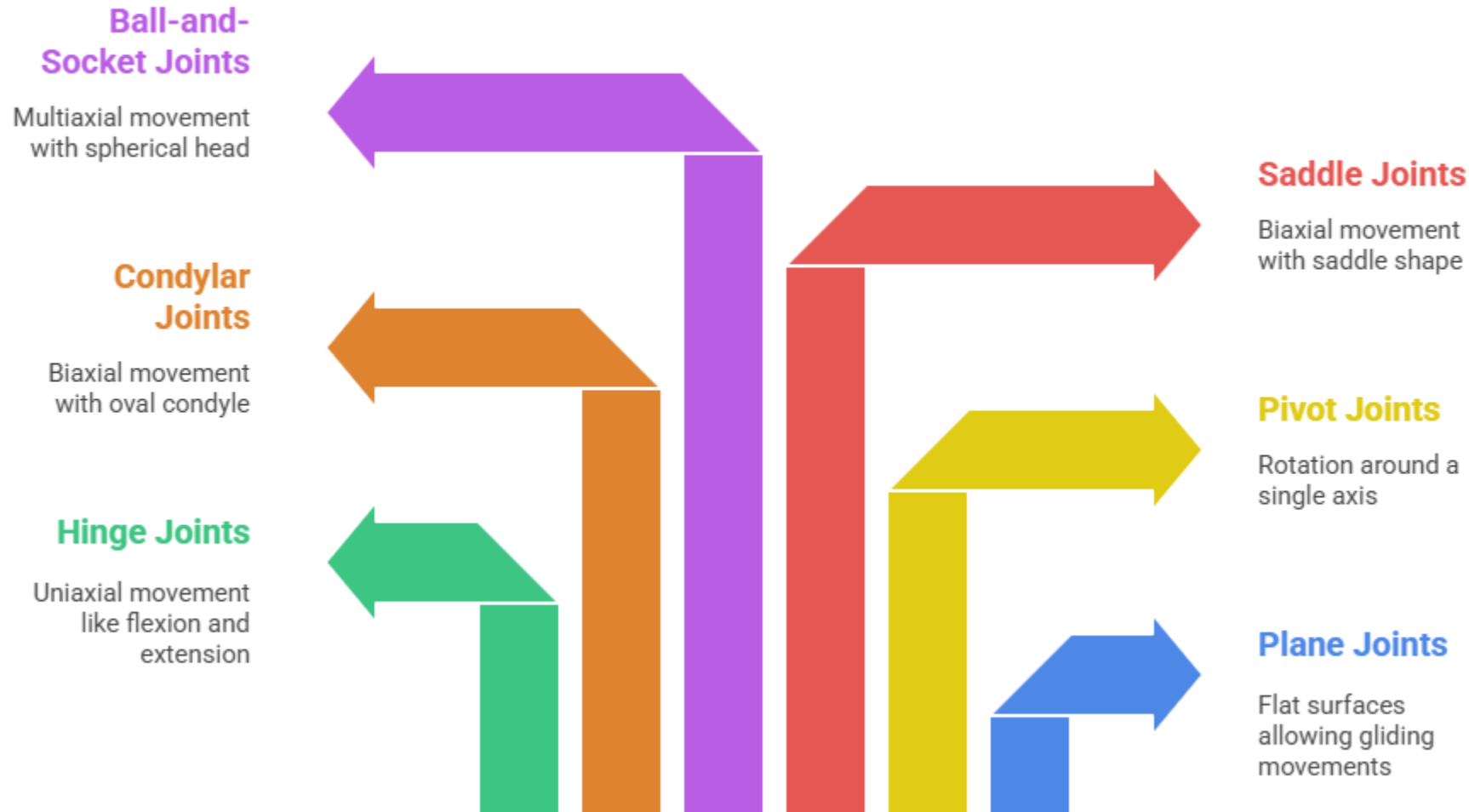
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Components of a Synovial Joint



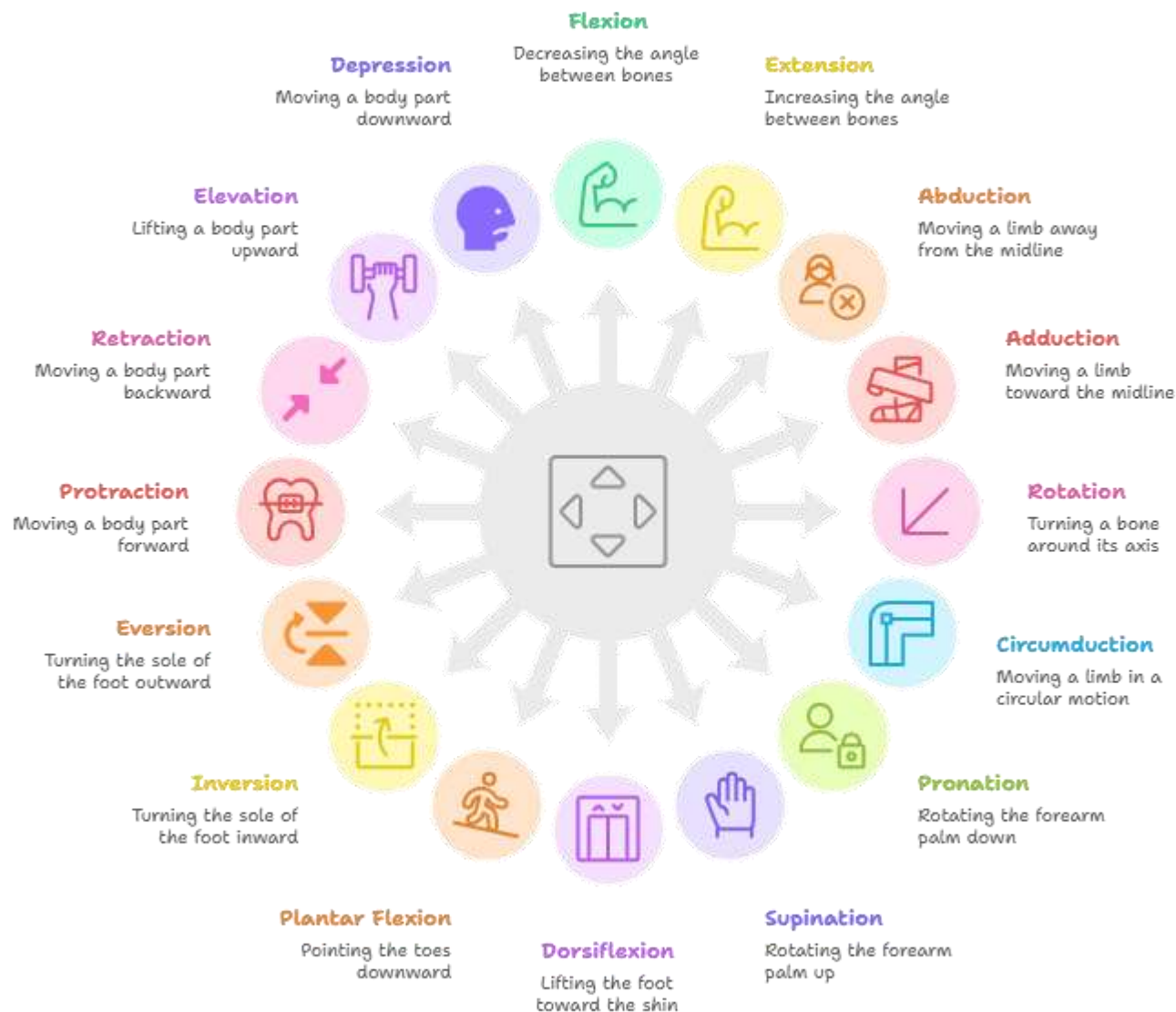
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Types of synovial joint

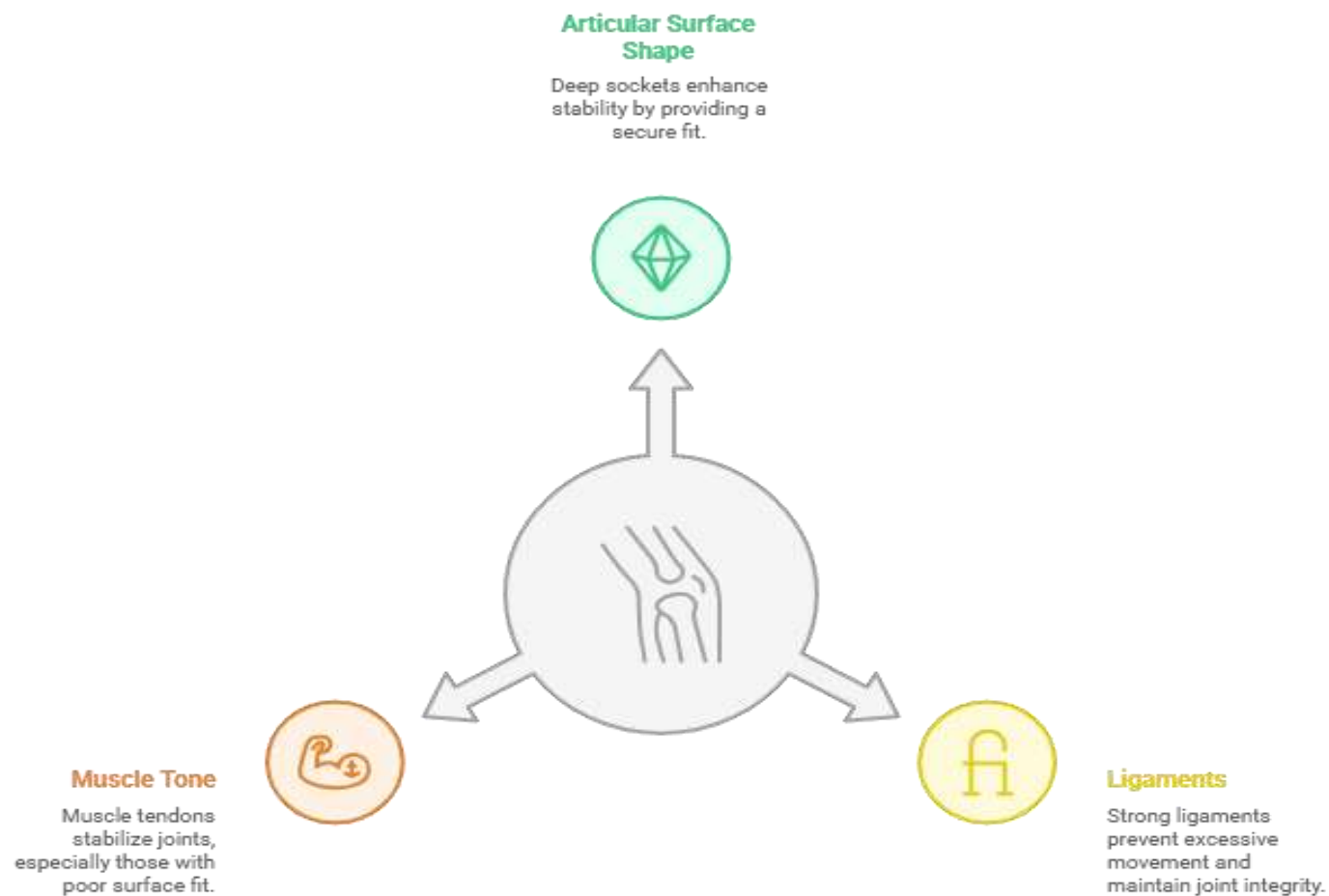


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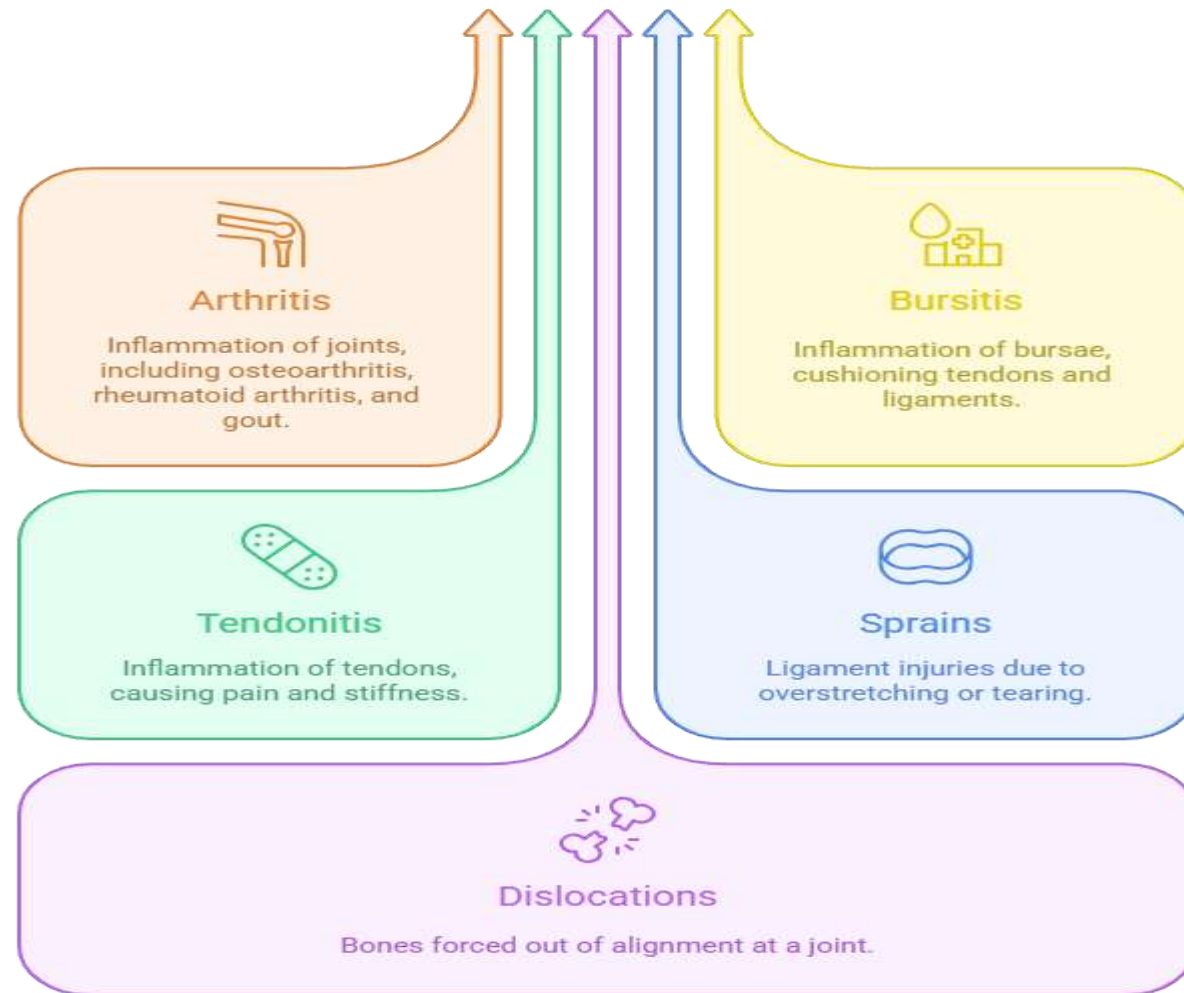
Synovial Joint Movements



Factors Affecting Joint Stability



Common Joint Disorders



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Strategies for Joint Health

Regular Exercise

Strengthens muscles and improves flexibility

Healthy Weight

Reduces stress on weight-bearing joints

Proper Posture

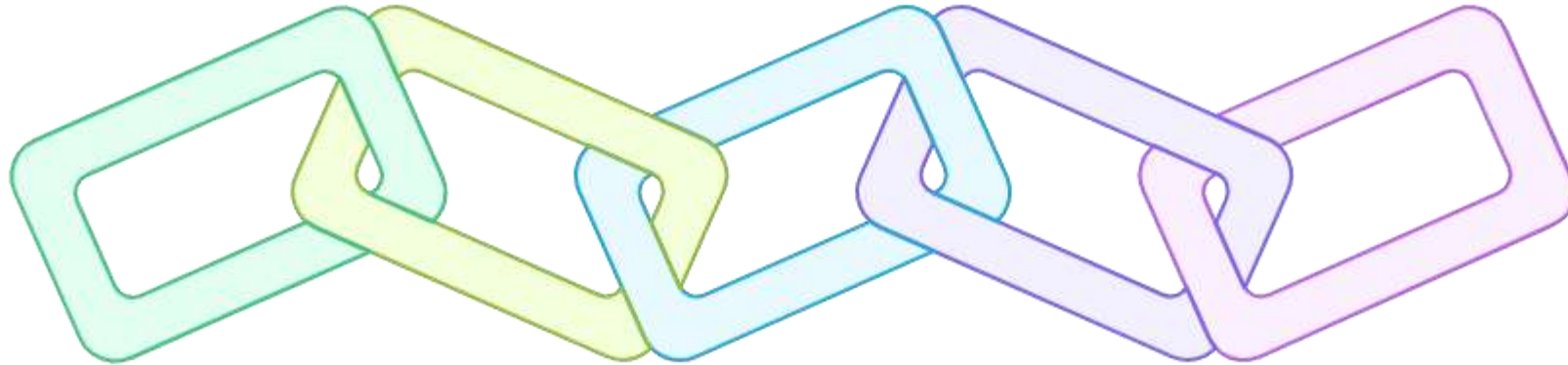
Minimizes strain on joints

Balanced Diet

Provides essential nutrients for joint health

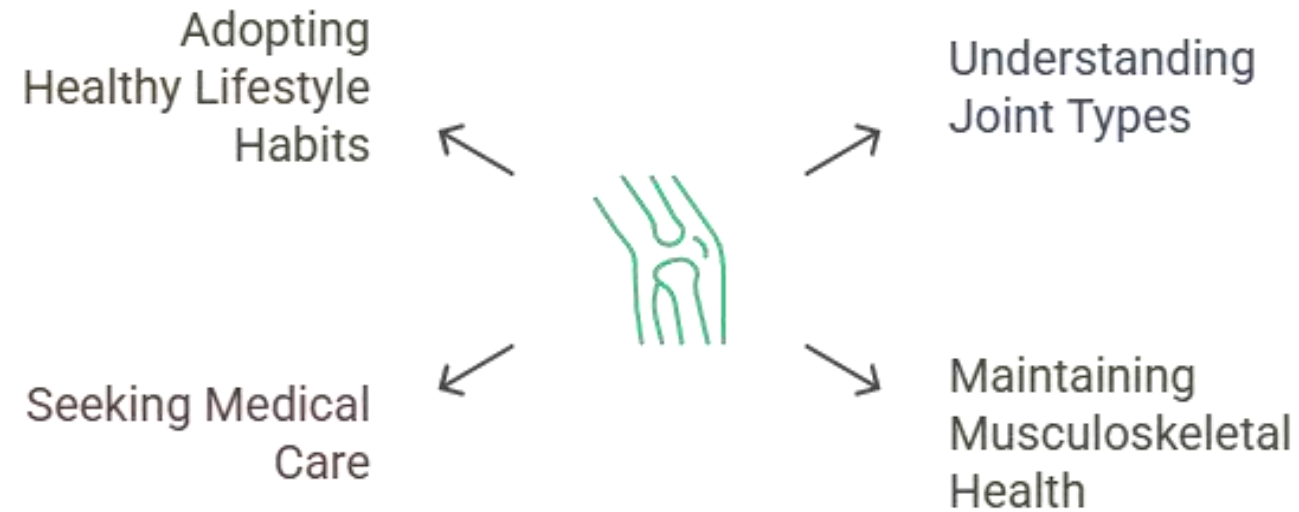
Avoiding Overuse and Injury

Prevents joint damage



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Joint Health Strategies



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Summary



Structural Classification

Focuses on the material binding bones and the presence of a joint cavity.



Functional Classification

Emphasizes the degree of movement allowed at the joint.



Synovial Joint Anatomy

Details the key features of the most versatile joint type.



Types of Synovial Joints

Classifies joints based on shape and movement.



Common Joint Disorders

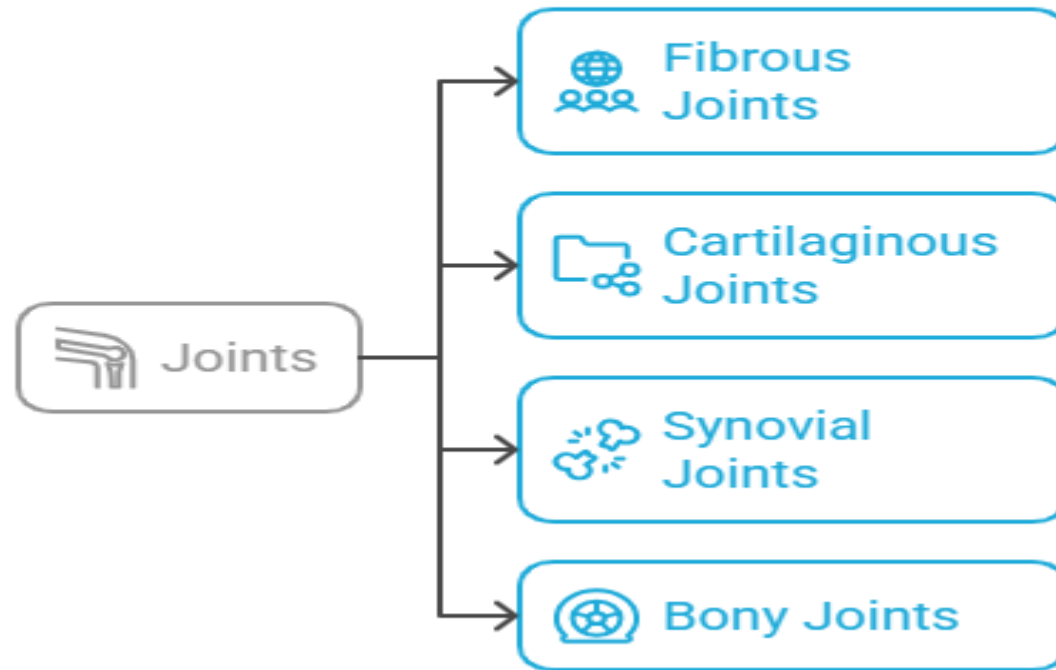
Highlights prevalent conditions affecting joint health.

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ASSESSMENTS



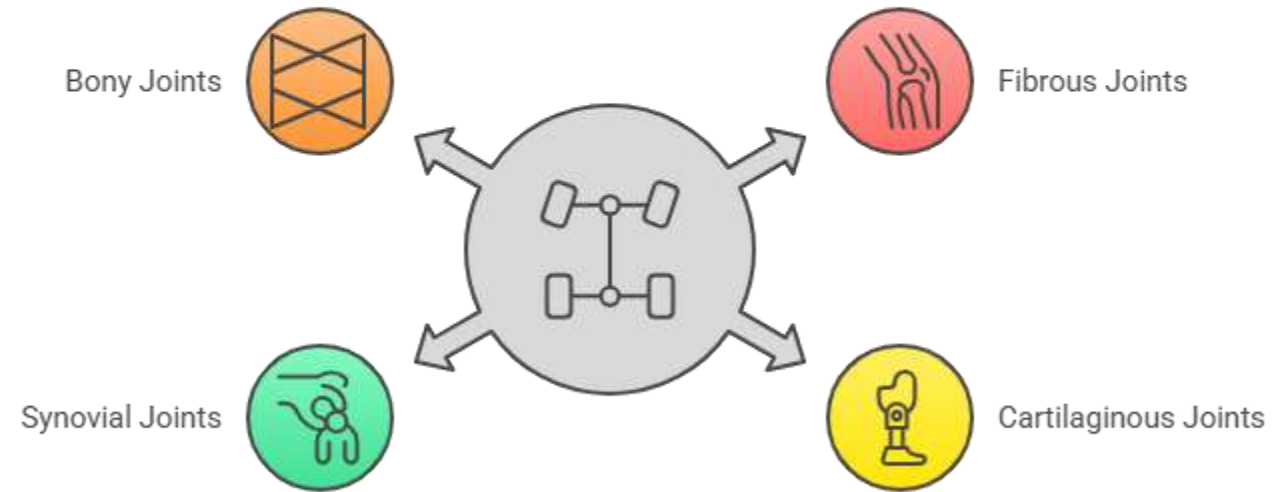
1. Which of the following is NOT a classification of joints based on structure?



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2. Which type of joint allows the greatest range of motion?





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3. Sutures are an example of which type of joint?



4. Which of the following is a characteristic of synovial joints?

5. The intervertebral discs are examples of which type of joint?



REFERENCES

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2. Marieb EN, Hoehn K. *Human Anatomy & Physiology*. 11th ed. Boston (MA): Pearson Education; 2019. p. 280–310.
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Thank
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