

Q15 – Ligaments of Knee Joint

Definition Note

The knee joint is a synovial, modified hinge joint whose stability is maintained by a strong system of ligaments. These ligaments connect the femur, tibia, and patella, guide movements, and prevent abnormal displacement of bones.

Classification of Ligaments

The ligaments of the knee joint are classified into extracapsular ligaments and intracapsular ligaments.

Extracapsular Ligaments

Extracapsular ligaments include the patellar ligament, medial collateral ligament, lateral collateral ligament, oblique popliteal ligament, and arcuate popliteal ligament. These ligaments strengthen the joint capsule and provide stability during weight bearing.

Intracapsular Ligaments

Intracapsular ligaments include the anterior cruciate ligament, posterior cruciate ligament, medial meniscus, and lateral meniscus. These ligaments lie within the fibrous capsule but outside the synovial cavity.

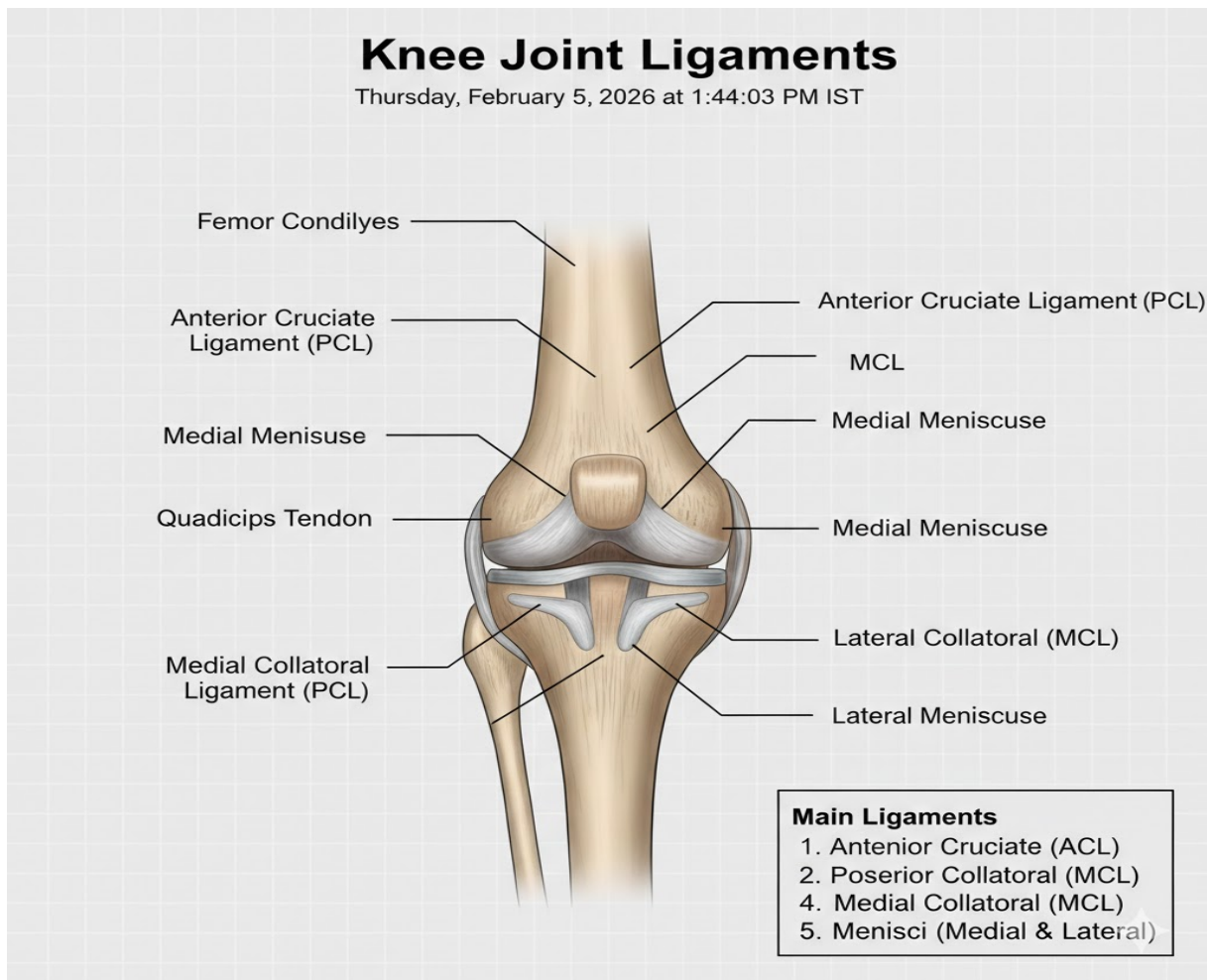
Functions of Ligaments

The ligaments of the knee joint maintain stability, prevent excessive movements, guide flexion and extension, and support body weight during standing and locomotion.

Applied Anatomy

Injury to the anterior cruciate ligament is common in sports and causes knee instability. Posterior cruciate ligament injury occurs due to dashboard injury. Combined injury to ACL, medial meniscus, and medial collateral ligament is known as unhappy triad.

Labeled Diagram – Ligaments of Knee Joint



Conclusion: The ligaments of the knee joint form a strong stabilizing framework that maintains joint integrity while allowing controlled movements. Their knowledge is essential in understanding knee injuries and treatment.