

## KNEE JOINT:

Modified hinge variety. → synovial joint.

### ARTICULAR SURFACES:

- > Articular surface of Medial & lateral condyles of the femur.
- > Trochlear surface of femur
- > Articular surface of Patella
- > Articular surface of Medial & lateral condyle of tibia.

### STABILITY IS MAINTAINED BY:

- > Medial & lateral collateral lig
- > Strength & Actions of surrounding muscle
- > ~~the~~ cruciate lig maintain Anteroposterior stability.
- > tibiofibial tact.

### LIGAMENTS:

- > Capsular lig
- > Ligamentum patellae
- > Tibial and fibular collateral lig
- > Ant and post cruciate lig
- > Med & lateral menisci.

### Others:

- > oblique popliteal lig.
- > Arcuate pop lig
- > Transverse lig
- > coronary lig.

CAPSULAR LIG : Thin & deficient Anteriorly.  
↳ Replaced by quadriceps femoris & lig patellae.

FEMORAL ATTACHMENT: & TIBIAL ATTACHMENT:

|           | FA                             | TA                                                           |
|-----------|--------------------------------|--------------------------------------------------------------|
| Anterior  | deficient                      | deficient                                                    |
| Posterior | Attach to intercondylar Ridge  | Attach to intercondylar Ridge<br>limit by post cruciate lig. |
| lateral   | enclose the oros of popliteus. |                                                              |

## LIGAMENTUM PATELLAE:

7.5cm x 2.5cm.

- > Actually the tendon of insertion of quadriceps femoris, which extends from the Area of Patella to the upper part of tibial tuberosity.
- > Related to superficial & deep infrapatellar bursa & pad of fat.

**TIBIAL COLLATERAL LIG** - 10cm. (degenerated tendon of Adductor Magnus).

consist of superficial & deep Parts.

Superficial Part → Attached below to the Medial border of post Part of Medial surface of shaft of Tibia.

Deep Parts → Attached to the medial condyle of tibia above the groove for the semimembranosus.

**FIBULAR COLLATERAL LIG**: 5cm (degenerated tendon of peroneus longus).

Superiorly → Attached to lateral epicondyle of femur.

Inferiorly → Attached to head of fibula. in front of its Apex.

lower part joined by Middle Genicular vessels & Nerve.

**ARCuate POPLITEAL LIGAMENT**: - Y shaped.

> Extend b/w and arch over the tendon of Popliteus.

> Attached: To Post border of intercondylar area of tibia.

**OBLIQUE POPLITEAL LIGAMENTS**:

> Expansion of tendon of semimembranosus.

> blends with post surface of capsule.

> Attachment intercondylar line.

**TRANSVERSE LIG**: connect the Ant ends of Med & Lat Menisci.

**CRUCIATE LIG**: Direct bond of union b/w tibia & femur, maintains the

Anteropost stability of knee joint.

Ant CL

PCL

- > Begins from the Ant part of intercondylar area of tibia.
- > Run upward backward laterally
- > Attach → Post part of Medial surface of lateral condyle of femur.
- It Prevent the Post dis of femur & Ant dis of Tibia.
- Taut during knee extension.

Begins from the Post part of intercondylar area of tibia.

Run upward forward, backward Medially.

→ Ant part of lateral surface of Medial condyle of femur.

→ Prevent Ant dis to front & post dis of Tibia

→ Taut during knee flexion.

MCNSC1: → Fibrocartilaginous disc.

→ Crust like.

→ divide the joint cavity into upper & lower compartment.

Parts: 2 ends + 2 borders + 2 surfaces.

Ant Post ant inner upper lower.

Medial

Lateral

→ Semicircular

→ Ant end is continuous with transverse lig

→ More firmly attached to tibia by coronary ligaments.

Circular

→ Post-end is attached to Medial condyle of femur through 2 meniscal lig

→ less firm.