



Kalyani's
Knee & Shoulder
Clinic

कल्याणी घुटना एवम कंधा क्लिनिक

Anterior Cruciate Ligament (ACL) Knee Injury

Patient Awareness | Knee Preservation & Sports Injury
Care

Appointments: 9554066663, 9554066664, 9219200378

Address: Umaraha Market, Varanasi

What is an ACL injury? The anterior cruciate ligament is an important stabilising ligament inside the knee. It controls forward movement and rotation of the shin bone. An ACL tear can cause pain, swelling and instability, especially during running, jumping, cutting, twisting and sports activities.

Knee preservation focus: Early diagnosis and correct treatment help prevent repeated giving-way episodes, meniscus tears and cartilage damage. Preserving meniscus and cartilage is important for long-term knee health and may reduce the risk of early arthritis.

Mode of injury

- Sudden twisting or pivoting injury with the foot planted.
- Landing awkwardly after a jump or sudden deceleration.
- Change-of-direction sports such as football, basketball, kabaddi, badminton or skiing.
- Non-contact valgus/internal rotation mechanism is common.
- Direct blow or high-energy trauma may occur with meniscus, cartilage, MCL, PCL or PLC injury.

Common symptoms

- Pop or snap sensation at the time of injury.
- Rapid swelling within a few hours, often due to bleeding inside the knee.
- Pain and inability to continue sport or activity.
- Knee giving way, buckling, or feeling unreliable.
- Stiffness, limp, difficulty walking, squatting or using stairs.
- Recurrent instability with twisting may suggest an ACL-deficient knee.

When to seek urgent care

- Severe pain, marked swelling, deformity or inability to bear weight.
- Locked knee or inability to fully straighten the knee.
- Numbness, tingling, cold foot, open wound or suspected dislocation.
- Young/active patient with repeated giving-way episodes.

Examination and diagnosis

History: injury mechanism, pop, swelling timing, giving-way episodes, sports/work demands and previous knee injuries.

Inspection: swelling, bruising, walking pattern, range of motion, quadriceps control and tenderness are assessed.

ACL stability tests: Lachman test, anterior drawer test and pivot shift test help assess ACL laxity and functional instability.

Associated injuries: meniscus tests, collateral ligament tests, PCL/PLC assessment and neurovascular check are important.

Imaging: X-rays look for fracture or avulsion. MRI confirms ACL tear and assesses meniscus, cartilage and other ligaments.

Technical details

Injury pattern: ACL tears may be partial or complete and may occur with meniscus, cartilage, MCL or lateral-sided injuries.

Graft options: ACL reconstruction commonly uses hamstring, bone-patellar tendon-bone, quadriceps tendon or allograft depending on age, activity and surgeon preference.

Arthroscopic surgery: small keyhole portals are used. Bone tunnels are prepared in anatomical positions and the graft is fixed with screws/buttons or other fixation devices.

Meniscus preservation: repairing a repairable meniscus at the time of ACL surgery is often considered to protect long-term knee function.

Rehabilitation: full extension, swelling control, strength, balance and safe movement patterns are restored step by step.

Treatment options

Non-operative / rehabilitation-based care

- Initial care: protection, rest, ice, compression, elevation, pain control and crutches if needed.
- Physiotherapy to reduce swelling, regain full extension, rebuild quadriceps/hamstrings strength and improve balance.
- May suit partial tears, lower-demand patients, older patients, or patients without repeated instability.
- A brace and activity modification may be advised while strength and confidence improve.
- Regular review is important because repeated giving-way can damage the meniscus and cartilage.

ACL reconstruction / repair in selected cases

- Considered for complete ACL tears with instability, active patients, pivoting sports, occupational demands or associated repairable meniscus injury.
- Most commonly performed arthroscopically using a graft to reconstruct the torn ligament.
- In selected proximal tears, ACL repair/augmentation may be considered by the treating surgeon.
- Associated meniscus/cartilage injuries are addressed when clinically appropriate.
- Return to running and sports is progressive and based on strength, movement quality and objective testing.

Useful classification for patient understanding

Type	Meaning	Usual approach
Grade I / sprain	Ligament stretched, no major laxity	Rest, physiotherapy, gradual return
Partial ACL tear	Some fibres torn; stability varies	Rehab first in selected cases; surgery if unstable/high demand
Complete ACL tear	Ligament continuity lost; instability common	Rehab plus ACL reconstruction if symptomatic/active
ACL + meniscus/cartilage injury	Combined injury increases risk of persistent symptoms	Early specialist review; preserve/repair meniscus when possible
Multi-ligament injury	ACL tear with MCL/PCL/PLC or dislocation pattern	Urgent assessment, MRI and staged/surgical planning

How ACL care helps knee preservation

An ACL-deficient knee can repeatedly give way. Each instability episode can increase the chance of meniscus tear, cartilage injury and early osteoarthritis. The aim of treatment is not only to return the patient to activity, but also to protect the meniscus, cartilage and overall knee function for the long term.

Rehabilitation and return to sport: key milestones

Phase	Main goals	Progression depends on
Early phase	Control swelling, pain relief, full extension, safe walking	Wound healing, swelling and motion
Strength phase	Quadriceps/hamstrings strength, balance, normal gait	Strength symmetry and movement control
Running phase	Gradual running, agility and landing mechanics	No swelling, good strength and control
Return to sport	Sport-specific drills and confidence	Objective testing and surgeon/physio clearance

Kalyani's Knee & Shoulder Clinic

For ACL injury, sports injury, knee preservation, arthroscopy and rehabilitation guidance

Call: 9554066663 | 9554066664 | 9219200378

Address: Umaraha Market, Varanasi

Note: This handout is for patient education only. Final diagnosis and treatment should be individualised after orthopaedic consultation, clinical examination and appropriate imaging. Sources reviewed: AAOS OrthoInfo and NHS patient guidance.