

ACL Tear Treatment Guidelines

An ACL tear is a common knee injury that often occurs in athletes, especially those who participate in sports that involve jumping, sudden stops and changes in direction. This type of injury can significantly impact an individual's ability to perform daily activities and return to their sport. Treatment for an ACL tear varies depending on the severity of the injury and the individual's lifestyle.

Treatment recommendations

Below are recommendations from the American Academy of Orthopaedic Surgeons (2022).

Recommendations are formed when there is sufficient evidence by which to create a directional statement. This is defined as evidence from two or more high-quality studies (i.e., a strong recommendation), two or more moderate-quality studies (i.e., a moderate recommendation), or statements resulting in a strong or moderate strength.

History and physical

A relevant history should be obtained, and a focused musculoskeletal exam of the lower extremities should be performed when assessing for an ACL injury.

- **Quality of evidence:** High
- **Strength of recommendation:** Strong ★★★★★
- Evidence from two or more "High" quality studies with consistent findings for recommending for or against the intervention.

Surgical timing

When surgical treatment is indicated for an acute isolated ACL tear, early reconstruction is preferred because the risk of additional cartilage and meniscal injury starts to increase within 3 months.

- **Quality of evidence:** High
- **Strength of recommendation:** Strong ★★★★★
- Evidence from two or more "High" quality studies with consistent findings for recommending for or against the intervention.

Single or double bundle ACL reconstruction

In patients undergoing intraarticular ACL reconstruction single or double bundle techniques can be considered because measured outcomes are similar.

- **Quality of evidence:** High
- **Strength of recommendation:** Strong ★★★★★
- Evidence from two or more "High" quality studies with consistent findings for recommending for or against the intervention.

Autograft vs. allograft

When performing an ACL reconstruction, surgeons should consider autograft over allograft to improve patient outcomes and decrease ACL graft failure rate, particularly in young and/or active patients.

- **Quality of evidence:** High
- **Strength of recommendation:** Strong ★★★★★
- Evidence from two or more "High" quality studies with consistent findings for recommending for or against the intervention.

Autograft source

When performing an ACL reconstruction with autograft for skeletally mature patients, surgeons may favor BTB to reduce the risk of graft failure or infection, or hamstring to reduce the risk of anterior or kneeling pain.

- **Quality of evidence:** High
- **Strength of recommendation:** Moderate ★★★★☆ (downgraded)
- Evidence from two or more "High" quality studies with consistent findings for recommending for or against the intervention. Also, higher strength evidence can be downgraded to limited due to major concerns addressed in the EtD Framework.

ACL training programs

Training programs designed to prevent injury can be used to reduce the risk of primary ACL injuries in athletes participating in high-risk sports.

- **Quality of evidence:** High
- **Strength of recommendation:** Moderate ★★★★☆
- Evidence from two or more "Moderate" quality studies with consistent findings, or evidence from a single "High" quality study for recommending for or against the intervention. Also, higher strength evidence can be downgraded to limited due to major concerns addressed in the EtD Framework.

Anterolateral ligament / lateral extraarticular tenodesis

ALL Reconstruction / LET could be considered when performing hamstring autograft reconstruction in select patients to reduce graft failure and improve short-term function, although long-term outcomes are yet unclear.

- **Quality of evidence:** High
- **Strength of recommendation:** Moderate ★★★★☆ (downgraded)
- Evidence from two or more "High" quality studies with consistent findings for recommending for or against the intervention. Also, higher strength evidence can be downgraded to limited due to major concerns addressed in the EtD Framework.

Repair vs. reconstruction

ACL tears indicated for surgery should be treated with ACL reconstruction rather than repair because of the lower risk of revision surgery.

- **Quality of evidence:** High
- **Strength of recommendation:** Strong ★★★★★
- Evidence from two or more "High" quality studies with consistent findings for recommending for or against the intervention.

Reference

American Academy of Orthopaedic Surgeons. (2022). Management of anterior cruciate ligament injuries evidence-based clinical practice guideline. <https://www.aaos.org/globalassets/quality-and-practice-resources/anterior-cruciate-ligament-injuries/aclcp.pdf>