



U.S. Soccer Federation
FAQ's about ACL Injuries

1. I tore my ACL. When should I have surgery?

For individuals who intend to return to cutting and pivoting sport, surgery to reconstruct a torn anterior cruciate ligament (ACL) is essential. Immediately after injury and upon diagnosis, your health care provider will direct you towards pre-habilitation (or “prehab”) of your knee. This will include supervised care with an athletic trainer or physical therapist to: 1) Reduce the swelling in your knee, 2) Regain full range of motion of the knee, and 3) Allow for appropriate gait mechanics and quadriceps strength. On average, a young athlete will complete their pre-habilitation within 2-3 weeks of the commencement of treatment; however, there are some individuals who achieve their milestones sooner and some later. Once your knee achieves this balance and control, your knee will be safely ready for surgery. If surgery is performed before these criteria are met, it may increase the risk for stiffness and scar tissue in the post-operative phase.

2. I tore my ACL and meniscus. When should I get surgery?

Often times, when the ACL is torn, an athlete's meniscus may also be torn. The same principles of pre-habilitation as above apply. The only exception, however, is if the ACL is torn in conjunction with a bucket-handle meniscal tear (or a flipped meniscal fragment). In this case, the knee may present as being “locked” or unable to be straightened. An athlete who has both an ACL and bucket-handle meniscal tear should not undergo pre-habilitation as there is a mechanical block to range of motion. Therefore, pre-habilitation can be bypassed and surgery may be performed as soon as possible to reduce and repair the flipped meniscal fragment as well as complete the ACL reconstruction at the same time.

3. How painful is ACL surgery?

Surgery to reconstruct an athlete's ACL is performed as an out-patient procedure. Some institutions will offer a temporary, anesthetic nerve block to decrease pain following surgery. Post-operative oral pain medications will be prescribed following surgery. These will typically comprise of a multimodal regimen of anti-inflammatories, medicine to reduce the risk of blood clots, and pain killers in the form of non-opioids and opioid medications. On average, an athlete's pain will be most intense in the first 2-4 days following surgery and will taper down afterwards. Most individuals do not require the use of opioid medications beyond 1 week after surgery and many discontinue their use after 3 days. There is even a small group of individuals that do not require opioids at all. However, there are many surgical factors which can alter a patient's subjective pain including graft choice, meniscal work, and other adjunct procedures that may be required.

4. Will I need crutches after ACL surgery?

Regardless of any concomitant or adjunct procedure done for your ACL reconstruction, the use of crutches for safety in the first week after surgery is recommended to prevent falls. In addition, your surgical team will have specific recommendations regarding your weight bearing status (i.e. how much weight you can put on your leg following surgery). The use of crutches and putting less weight through your leg can depend on factors such as types of meniscal repairs performed, bone quality, type of implant, and surgeon preference.

5. Will I need a brace after ACL surgery?

Your surgical team may recommend a post-operative knee brace to be used following surgery. Braces are typically used for comfort and control following a major surgery such as an ACL reconstruction. Yet, there is limited evidence to suggest that the use of a brace after surgery provides any benefit in clinical outcome following ACL reconstruction. However, other than the added cost, there does not seem to be any added harm. In summary, the decision to use a brace after surgery will be dependent on your surgeon's preference.

6. What is the best graft choice for female athletes?

Graft options for ACL reconstruction surgery include bone patellar tendon bone autograft (BPTB), quadriceps tendon autograft, hamstring autograft, and allograft (donor) tissue. Graft choice is dependent on a variety of factors, including age, sex (male versus female), sport, prior injuries and/or surgeries, patient preference, and surgeon preference. In general, autograft (tissue from the patient's own knee) should be used for young athletes (especially those under 35 years of age). All autograft options have been shown to be successful in female athletes; however, recent literature suggests that in female athletes, both BPTB autograft and quadriceps tendon autograft have improved outcomes compared to hamstring autograft with respect to postoperative laxity and re-tear rates. Unless these options are unavailable (ie, due to prior surgery or injury involving these graft options), we would recommend consideration of either BTB or Quadriceps tendon autograft in high-level female athletes. Ultimately, graft choice is a patient-specific decision made on a case-by-case basis with the athlete and surgeon. We would strongly recommend against allograft tissue in this patient population.

7. What is the best graft choice for male athletes?

Graft options for ACL reconstruction surgery include bone patellar tendon bone autograft (BPTB), quadriceps tendon autograft, hamstring autograft, and allograft (donor) tissue. Graft choice is dependent on a variety of factors, including age, sex (male versus female), sport, prior injuries and/or surgeries, patient preference, and surgeon preference. In general, autograft (tissue from the patient's own knee) should be used for young athletes (especially those under 35 years of age). All autograft options have been shown to be successful in male athletes; however, recent literature suggests that both BPTB autograft and quadriceps tendon autograft have lower postoperative laxity and re-tear rates compared to hamstring autografts. Ultimately, graft choice is a patient-specific decision made on a case-by-case basis with the athlete and surgeon. We would strongly recommend against allograft tissue in this patient population.

8. Won't autograft (ie, using my own quad or patellar tendon) weaken my knee? Can I just have allograft (donor tissue)?

One common question that athletes and parents/family tend to have regarding the use of autograft tissue centers on the potential downsides of taking tissue from one part of the knee and using it to make the new ACL graft. Fortunately, over 4 decades of research and clinical experience have shown that in the vast majority of athletes, including professional athletes, using autograft for ACL reconstruction does not result in permanent knee weakness. Temporarily, athletes may experience "donor site morbidity" in which there is temporary pain at the donor-site (ie, where the tissue was taken from), but this tends to go away early on in the recovery process. Each autograft tissue is associated with its own "donor site morbidity" concerns (ie, temporary anterior knee pain is more frequently associated with BPTB autograft, temporary quad weakness is more frequently associated with Quadriceps tendon autograft, and temporary hamstring weakness and nerve pain are more frequently associated with hamstring tendon autograft). While allograft (donor tissue) does not have associated donor-site morbidity, we recommend against the use of allograft tissue in young athletes (especially those under 35 years of age) due to the higher risks of ACL graft failure.

9. What is the best graft choice if I've already had an ACL surgery and the graft re-tore?

The choice for a revision ACL graft depends on the same factors as previously discussed, including age, sex (male versus female), sport, prior injuries and/or surgeries, patient preference, and surgeon preference. In addition, the previous graft(s) and status of the previous hardware (ie, screws, buttons), as well as the size and location of the bone tunnels also impact decision-making for the revision surgery. Whenever possible, we recommend using autograft for the revision surgery. If allograft was used in the first surgery, the recommended revision ACL graft is autograft tissue, including either BPTB autograft, Quadriceps Tendon autograft, or hamstring autograft. If autograft was used in the first surgery, we recommend using a different autograft option. Of note, it is possible to use multiple autografts from the same knee. For example, if the athlete previously had BPTB autograft, it is okay to use Quadriceps Tendon autograft or hamstring autograft from the same knee, though this must be evaluated on a case-by-case basis, especially when using BPTB after prior Quad, or Quad after prior BPTB. Alternatively, the opposite (healthy) knee can be used as a source for autograft tissue, but this does require surgery on both knees at the same time. We also recommend augmenting the revision ACL reconstruction with a lateral sided procedure (see below), and evaluating for other reasons for graft failure, including bony alignment and meniscus status.

10. When should we add an augmentation procedure (such as lateral extra-articular tenodesis or ALL reconstruction)?

A lateral sided augmentation procedure, including either lateral extra-articular tenodesis (LET) using the iliotibial (IT) band, or anterolateral ligament (ALL) reconstruction should be considered in some primary (1st-time) ACL reconstruction cases, and in the vast majority of revision ACL reconstruction cases. Adding an LET or ALL has been shown to reduce re-tear rates substantially. Specifically for first-time ACL surgery, athletes who are at high-risk for ACL reconstruction failure, including athletes with baseline ligamentous hyper-laxity, elevated posterior tibial slope (shin bone anatomy), baseline recurvatum (hyper-extension), and/or a high-grade (3+) pivot shift, should consider undergoing LET or ALL at the time of the ACL reconstruction. Female soccer players are among the highest-risk athletes for re-tear of ACL grafts, particularly with hamstring autografts, and so consideration should be made for adding an LET or ALL to these athletes.

11. How does a meniscus repair change the early, and late, rehabilitation?

In some cases, meniscus repair performed at the time of ACL reconstruction impacts the early recovery period. Specifically, certain types of tear patterns (radial tears, ramp tears, and root tears) require weight-bearing and range of motion restrictions for up to 6 weeks after the surgery. Other tear patterns (ie, vertical tear patterns including bucket handle tear patterns), allow for early weight-bearing and early range of motion. The final recovery timeline (including ultimate return to play timeline), should not be impacted by the meniscus tear/repair pattern.

12. Can I do blood flow restriction therapy after ACL surgery, and if so, when?

Yes, you can do blood flow restriction (BFR) therapy after ACL surgery. Every surgeon, and every patient, is different. Your surgeon will customize your rehabilitation protocol, including BFR, to you. Typically, BFR is considered safe as soon as 4 weeks after surgery, but this depends on your specific protocol given to you by your surgeon.

13. When can I start running after ACL surgery?

Your surgeon will customize your rehabilitation protocol, including when to start running, to you and your specific injury/surgery. Typically, running is permitted at approximately 3-4 months following surgery, but this depends on your specific protocol given to you by your surgeon. If the meniscus is repaired, typically running is not permitted until at least 4 months after surgery.

14. When can I start pivoting after ACL surgery?

Your surgeon will customize your rehabilitation protocol, including when to start pivoting and cutting, to you and your specific injury/surgery. Typically, these sport-specific activities are permitted at approximately 5-6 months following surgery, but this depends on your specific protocol given to you by your surgeon.

15. How long before I can play competitive soccer after ACL surgery?

Your surgeon will customize your rehabilitation protocol, including when it is okay to begin playing competitive soccer, to you and your specific injury/surgery. Typically, a return-to-sport assessment with your physical therapist and/or athletic trainer, is performed at approximately 6 months following surgery. This assessment will reveal the current functional status of the leg, and provide specific recommendations for additional areas in which to focus future rehabilitation. The general guideline for return to soccer is approximately 9 months following surgery, but some athletes may take longer, including >1 year, before their knee is ready to play at the competitive level. There is no “right” time to get back to competitive soccer - the overall recovery timeline is customized to you and your knee.

16. What is the success rate of ACL surgery?

The definition of success after ACL surgery is actually quite variable. Success can be defined as a knee that feels normal and is pain-free, a knee that is “stable” based on physical examination, and/or a knee that allows the athlete to return to play at the desired level of competition. Failure is generally defined as a re-tear of the ACL graft. Generally, we look at all of these factors to determine if the surgery is successful. In addition, other factors including age of the patient, desired sport, concomitant injuries (ie, meniscus tear that was repaired), can impact success of the procedure. Generally, success after ACL surgery is >85% with respect to achieving a stable, pain-free knee, that allows the athlete to return to sport. Some studies suggest that even with a successful surgery (ie, stable knee), the ability to return to the pre-injury level of play is approximately 60-80%. Some studies also suggest that the rate of donor-site morbidity (ie, pain from the patellar tendon harvest, quadriceps tendon harvest, and/or hamstring tendon harvest) can approach 40%, with the rates highest in patellar tendon cases, and lowest in quadriceps tendon cases.

17. Can I have my ACL repaired (instead of reconstructed)?

Every ACL tear pattern is unique, and the treatment should be customized to the patient. Some ACL tear patterns, specifically, proximal 1/3 tears that are relatively acute, can be considered for primary ACL repair (no graft). Of note, the majority of patients in the literature who undergo successful repair tend to be older patients who are recreational athletes. The success rate of primary ACL repair in competitive soccer players is unknown. For this reason, ACL reconstruction is considered the standard of care for this specific patient population.

18. Can I have the BEAR procedure (instead of reconstruction)?

Every ACL tear pattern is unique, and the treatment should be customized to the patient. Some ACL tear patterns, specifically, proximal 1/3 tears that are relatively acute, can be considered for primary ACL repair (no graft). The BEAR procedure is one of several possible techniques for primary ACL repair. The success rate of primary ACL repair using the BEAR technique in competitive soccer players is unknown. For this reason, for competitive soccer players, ACL reconstruction is considered the standard of care for this specific patient population, and BEAR repair is NOT recommended.

19. What activities can I do before my surgery (after the injury) that are safe for my knee?

After the diagnosis of an ACL tear, and before surgery, several activities are safe for the knee. In general, we recommend “prehab” - meaning, pre-surgical physical therapy with a physical therapist and/or athletic trainer. Exercises prior to surgery include working on range of motion (full knee extension, full knee flexion), quadriceps sets and activations, and in some cases, light cycling. If there is a displaced meniscus tear (ie, bucket handle tear), full knee ROM will not be possible and more urgent surgery is recommended. Unless there is a large, complex, and/or displaced meniscus tear, weight-bearing as tolerated is recommended prior to surgery as soon as pain and swelling allow.

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