

## Anterior Cruciate Ligament



The Anterior Cruciate Ligament (ACL) is a ligament within the knee that runs from the femur to the tibia. This ligament is important for stabilizing the knee, especially during any running, stopping, or twisting motions. If this ligament is torn, there are many options we have for treatment. In some patients, the knee function can be returned through physical therapy alone. However, for those having instability or are unable to return to the desired activity level, ACL repair or reconstruction may be recommended.

A thorough discussion is integral to deciding the optimal treatment option for each patient. In certain cases, a repair can be performed. However, for most patients, ACL reconstruction is the recommended option. For ACL reconstruction, a tendon graft is utilized to make a new ligament. There are several graft options available, and these are discussed in detail with each patient.

The goal of ACL reconstruction is to stabilize the knee and restore function. To achieve this goal, the graft must be placed in an optimal position. At Froedtert South, we have multiple checks at the time of surgery to ensure this. I utilize both anatomic landmarks and imaging during surgery to achieve this. Not achieving this can unfortunately lead to knee stiffness and graft failure, and thus great care is placed on this component of the surgery.

With an ACL tear, other structures, including the meniscus, may become damaged. If a meniscus tear is present, this should be managed at the time of the ACL reconstruction. The meniscus is an important structure for shock absorption, protection of the cartilage, and an additional stabilizer to the knee. A large amount of evidence has now accumulated showing the importance of the meniscus for the long-term health of the knee.

The ACL repair is now feasible secondary to advancements in technology. With this, sutures are passed through the ACL which is then re-attached to the bone. A collagen augment is then added to improve the healing environment of the ACL. The benefit of the repair is that it preserves the patient's own ACL. This option is only available in select tear patterns, I have a thorough discussion with each patient regarding all these options as we determine the optimal treatment plan.