
Choosing Treatment for an Injury to the Anterior Cruciate Ligament (ACL)

Injuries to the anterior cruciate ligament (ACL) are relatively common in sports. When the ACL is torn, the patient/athlete must decide whether to let it remain torn or have surgery to repair it. My purpose is to help you decide which treatment option is better for you.

In most cases, the ACL is completely torn (ruptured). Partial tears do occur, but are rare. The diagnosis is usually made with a combination of history and physical examination, but other studies, such as an MRI, are often necessary to confirm the diagnosis and determine if there is damage to other structures, such as the cartilage and meniscus.

You must make a choice about what to do: 1) Have the ligament surgically reconstructed; or 2) Try to live without an ACL.

To determine which of choice is best for you, you must understand what can happen to people whose ACL has ruptured.

People who have torn ACLs will fall into three main groups:

1. A small, unfortunate group will develop a "trick knee" that "gives out" very easily. This can happen with non-stressful activities, such as simply turning their body quickly. During such "giving out" episodes, the patient may feel the knee slip or slide out of place. These episodes may be painful and are often followed by swelling. We call these "instability episodes."
2. Another small, fortunate group is at the other extreme. Individuals in this group can do virtually anything without trouble.
3. The vast majority of people with a torn ACL fall in between these other groups. They can do most nonstressful daily activities and "straight ahead" sports such as running, swimming and bicycling without difficulty. But they will have some degree of "giving out" when they engage in activities requiring jumping, pivoting, cutting or sudden changes of direction. Some of these people will find that their instability is controlled adequately by wearing a special brace. Others in this group will find that their knees give out even while wearing a brace.

The goal of treatment is to prevent "giving out" episodes. Not only are these episodes painful and inconvenient, they may cause secondary damage to the menisci and joint surfaces (cartilage), and therefore increase the risk of premature arthritis in the knee.

Let's look more closely at the advantages and disadvantages of the two treatment options:

Option One: Surgical reconstruction of the ACL. The principle advantage of surgery is that it provides the best chance of having normal knee function following an ACL tear. The surgery has about a 90 percent success rate. In other words, nine out of ten people who have this operation

will not develop “giving out” episodes or cause further damage to their cartilages or joint surfaces. The primary disadvantage of surgery is that it exposes the patient to the risks normally associated with surgery including: infection, thromboembolism (blood clots traveling from the leg to the lungs) and postoperative stiffness. Modern techniques of surgery and rehabilitation have lowered the chance of these problems, but cannot completely eliminate these risks.

Option Two: Allowing the ligament to remain torn. The principle advantage of this option is that the person choosing it avoids an operation and its associated risks. The chief disadvantage is that it may not work and the patient may end up with a “trick knee,” which can result in pain, swelling, and further damage to joint. These knees can usually be helped with later reconstructive surgery, but may suffer irreparable damage to the menisci or cartilages during the period when the knee was unstable.

Which option is better for you?

Ideally, we would like to be able to foretell which patients will develop unstable knees and offer them surgery while discouraging surgery in those who will be able to get along without their ACL. Unfortunately, there is no way of predicting the future with 100 percent certainty in every case. There are guidelines, however, which are very helpful. Patients who refuse to give up “high risk” sports such as basketball, volleyball, soccer or football, or to moderate their “aggressiveness” in medium risk sports such as tennis, racquetball or skiing, will probably not be satisfied with the results of nonsurgical treatment. Conversely, patients who are willing to give up high risk sports and to moderate their participation in medium risk sports will often be satisfied without surgery. Treatment results tend to be age-related, but mainly because people’s priorities change with age. Despite this, there is not a specific age that someone becomes “too old” to have ACL surgery.

Making Your Choice

You should base your choice upon your own sports and activity priorities. If you wish to play “high risk” sports at a competitive level, then surgery is usually the better option for you. If you are a recreational athlete and are willing to moderate your sports participation, you may be satisfied with the result of your nonsurgical treatment. You should remember that there is always some chance that you will develop “giving out” even at reduced activity levels and may require reconstructive surgery later.

There are many other factors, which may influence your individual decision. If after considering the alternatives and discussing them with your loved ones, you are still having trouble making a decision, then you can always ask more questions. Some people find a “second opinion” helpful in coming to a decision; I would be happy to provide you with a list of orthopedic surgeons who are knowledgeable in the field of knee injuries.

Timing

In the past, ACL surgery was done soon after the injury. This often resulted in knee stiffness and other complications, which resulted in less successful outcomes from surgery. For that reason, it is now recommended that you do **NOT** have surgery soon after the injury.

Most sports medicine specialists will postpone surgery for a few weeks or even a few months. This may actually be required if you have other injuries to your knee, you have a lot of swelling, or if your range of motion is limited. Recent research shows that you are more likely to have problems regaining normal knee motion after ACL reconstruction if you have surgery too soon after the initial injury. Therefore, even if you are certain that you want to have ligament reconstruction, it is important to wait at least a few weeks to regain your motion and allow swelling to resolve prior to surgery.

Technique

The ACL is not sutured (sewn) back together when it is torn. We will “reconstruct” the ACL with a graft. There are different choices for the graft that is used to reconstruct the ACL. The grafts that we use for the surgery can come from *your* body: we call these Autografts. The two main autografts are the hamstring autograft and the patella tendon autograft. Both are strong grafts and provide reliable results. Both have advantages and disadvantages. I have chosen to do most of my surgeries with a hamstring graft.

Some patients may prefer to have an “allograft” reconstruction. In this kind of graft, a graft tissue comes from a “donor.” These are usually the same people choosing to donate their organs after death. Although these donors are very carefully screened and the donated tissue is treated before use, there is a very small chance of transmission of diseases such as bacteria, hepatitis (1:250,000 to 1:500,000) or HIV/AIDS (1:1,000,000 to 1:2,500,000). There is no need to take anti-rejection drugs after this type of surgery.

There is no “right choice” in deciding what to do about your torn ACL. We are here to help guide you in making that decision. Please feel free to ask any questions that you may have.

Sincerely,
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