

Knee Reconstruction

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One of the most common injuries to both athletes and non-athletes is a ligament tear in the knee, which may require reconstructive surgery.

Primarily, the ligament in question is the anterior cruciate ligament, or ACL. Once torn, the ACL ends are usually shredded and don't have the capacity to regenerate or heal, despite any efforts to sew the torn ends together. If not reconstructed, the torn ligaments are absorbed and aren't evident a few months after the injury. To repair the ligament, a strip of hamstring tendon, or a piece of knee cap tendon is usually taken from the patient's own leg and used to replace the damaged ligament. The tendon strip is then placed through surgically drilled holes and stabilized at both ends with staples or screws. With the strip in place, normal healing can occur. Under certain circumstances, donor ligaments or tendon structures may be used from cadaver specimens.

Within six to eight weeks after the surgery, the tendon graft begins to remodel and form a new ligament. Proper care must be taken to avoid stressing the ligament during this time or the reconstructed ligament may rupture or loosen. In most cases, surgery is performed by arthroscopic methods and may require an overnight stay at the hospital. Immediate protected weight bearing is allowed, but with a hinged knee brace and crutches for support. Rehabilitation may begin immediately and can last from six to nine months.

For additional information, check out our JOI Physician's articles.