

## A Short Note on Anterior Cruciate Ligament (ACL) Injury

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### DESCRIPTION

Tough and short flexible connective tissue bands are called ligaments and these ligaments hold the knee joints together. Causes for these knee ligament injuries are traumas in accidents and sports injuries are the common reasons. Knee joint have 4 ligaments to connect the thigh bone called femur and skin bone called tibia. The ligament located at center of the knee is called Anterior Cruciate Ligament (ACL) and its function is to control the rotation and forward movement of the skin bone. The ligament located back side of the knee is called Posterior Cruciate Ligament (PCL) and its function is to control the backward movement of the skin bone. Lateral Collateral Ligament (LCL) and Medial Collateral Ligament (MCL) give stability to the inner and outer knee.

Most commonly injured ligament is anterior cruciate ligament, which is often torn or stretched during sudden abnormal twisting motion. The twisting when the foot is planted in one direction and knee turns on other direction, this twist damage the ligaments. Some of the sports have high risk of ACL injury they are football, soccer, basketball and skiing, and incorrect landing from a jump may be the reason injury sometimes.

The fibrous connective tissue called tendon that attach muscles with bone. In the reconstruction of ACL surgery process the torn ligament is removed and replaced with band of tissue called tendon. Generally this graft tendon is taken from a deceased donor or from another part of the knee. The diagnosis process

processed with physical examination of both injured and uninjured knee. And after physical examination includes some tests to know the severity of the injury, those are X-rays, Ultrasound, and Magnetic Resonance Imaging (MRI). Treatment process includes first aid too, for knee injuries self-care at home determined as RICE in this self-care includes Rest, Ice, Compression and Elevation (RICE). After injury need to take proper rest for healing and to reduce weight on knee. Ice the injured knee for twenty minutes for every twenty hours. To avoid no more movements of injured knee, we have to wrap an elastic bandage around the knee. To provide stable rest to the injured knee, we have to lie down and propped up the knee with pillow. The medical treatment includes rehabilitative therapy for several weeks. Under physical therapist supervision at home several exercises are performed by patient with or without using support of braces and clutches to avoid putting weight on injured knee. Rehabilitative goal is to reduce swelling and pain, and to restore the full range of knee motion. If sports persons and want to continue sports after injury then the doctors will recommend surgery. Because sports include with jumping, pivoting and cutting may aging damage the ligaments. When more than one ligament is damaged or fibrous cartilage in the knee also damaged then doctors suggest surgery. But after successful ACL reconstruction surgery patient again need to take rehabilitation therapy to restore the stability and function of the injured knee. Complete recovery takes nine months of time and sometimes may be six months with proper medication and exercise.

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