ACL Reconstruction

When you twist your knee or fall on it, you can tear a stabilizing ligament that connects your thighbone to the shinbone. An anterior cruciate ligament (ACL) unravels like a braided rope when it's torn and does not heal on its own. Fortunately, reconstruction surgery can help many people recover their full function after an ACL tear.

ACL tear

Ligaments are tough, non-stretchable fibers that hold your bones together. The cruciate ligaments in your knee joints crisscross to give you stability on your feet. People often tear the ACL by changing direction rapidly, slowing down from running or landing from a jump. Young people (age 15-25) who participate in basketball and other sports that require pivoting are especially vulnerable. You might hear a popping noise when your ACL tears. Your knee gives out and soon begins to hurt and swell. First treatment includes rest, ice compression and elevation (RICE) plus a brace to immobilize the knee, crutches and pain relievers. Get to your doctor right away to evaluate your condition.

Evaluation

Your doctor may conduct physical tests and take X-rays to determine the extent of damage to your ACL. Most of the time, you need reconstruction surgery. Your doctor replaces the damaged ACL with strong, healthy tissue taken from another area near your knee. A strip of tendon from under your kneecap (patellar tendon) or hamstring may be used. Your doctor threads the tissue through the inside of your knee joint and secures the ends to your thighbone and shinbone. In a few cases when the ACL is torn cleanly from the bone it can be repaired. Less active people may be treated non surgically with a program of muscle strengthening.

Outcome

Successful ACL reconstruction surgery tightens your knee and restores its stability. It also helps you avoid further injury and get back to playing sports. In the U.S., doctors see more than 95,000 ACL tears each year and perform about 50,000 ligament reconstructions. The surgeries are successful about 85-92 percent of the time.

After ACL reconstruction, you'll need to do rehabilitation exercises to gradually return your knee to full flexibility and stability. Building strength in your thigh and calf muscles helps support the reconstructed structure. You may need to use a knee brace for awhile and will probably have to stay out of sports for about one year after the surgery.