

ACL Injury and Rehabilitation

Condition: The anterior cruciate ligament (ACL) is a soft tissue structure of the knee that connects the thigh bone (femur) to the larger bone in the lower leg (tibia) and prevents instability of the knee with sports and occupational activities.

Background: ACL injuries are common among athletes. There are about 250,000 ACL injuries each year. They occur when the athlete suddenly stops, turns, makes cutting moves or jumps and lands awkwardly.

Risk Factors: ACL injuries are 3 to 7 times more common in women than men. Differences in anatomy, muscle strength, hormonal status, and the environment of competition may affect the risk of injuring the ACL. Playing sports on artificial turf increases the risk of an ACL injury. High risk sports for injury include basketball, soccer, football and skiing.

History and Symptoms: Patients describe feeling a “pop” or that their knee is giving way. Pain and swelling occurs rapidly. The athlete usually is not able to continue with the activity. In people with repeated ACL injuries, there is often damage to other structures in the knee which results in the development of arthritis.

Physical Exam: The patient usually exhibits significant knee swelling, limited motion and a positive Lachman test in which with the patient on his/her back, the doctor will hold the thigh and try to move the lower leg forward. If the leg can be moved anteriorly it means the ACL is damaged.

Diagnostic Process: X-rays are used to look for fractures around the knee and the MRI is used to look for injury to the ACL and other structures.

Rehab Management: Management will focus on protecting the knee from more damage by limiting activity, using braces and crutches in the early stages of treatment, and utilizing physical therapy to regain full motion, strength and stability. Surgery may be needed following rehabilitation in young active individuals and competitive athletes

Other Resources for Patients and Families: Physical medicine and rehabilitation (PM&R) physicians, sometimes called Sports Medicine specialists, can evaluate the injured patient and recommend appropriate treatment strategies including rehabilitation, activity modification, bracing or surgery based on the patient’s age, level of competition and goals. Support from family and friends and in some cases mental health professionals can help the athlete cope with this severe injury and the stress resulting from not being able to participate in sports.

Frequently Asked Questions

What is PM&R?

Physical medicine and rehabilitation (PM&R), also known as physiatry, is a primary medical specialty that aims to enhance and restore functional ability and improve quality of life to those with injuries, physical impairments or disabilities affecting the brain, spinal cord, nerves, bones, joints, ligaments, muscles and tendons. PM&R physicians, known as physiatrists, evaluate and treat the whole body, maximize patients' independence in their daily life and are experts in designing comprehensive, patient-centered treatment plans to empower patients to achieve their goals. By taking the whole body into account, they can accurately pin-point problems, decrease pain, assist in recovery from devastating injuries and maximize overall outcomes and performance with non-surgical and peri-surgical options. To learn more, visit www.aapmr.org/aboutpmr.

What makes PM&R physicians unique?

PM&R physicians' training focuses not just on treating medical conditions, but on enhancing the patient's performance and quality of life in the context of those medical conditions. They focus not only on one part of the body, but instead on the development of a comprehensive program for putting the pieces of a person's life back together – medically, socially, emotionally and vocationally – after injury or disease. PM&R physicians make and manage medical diagnoses, design a treatment plan and prescribe the therapies that physical therapists or other allied therapists perform or that are carried out by the patients themselves. By providing an appropriate treatment plan, PM&R physicians help patients stay as active as possible at any age. Their broad medical expertise allows them to treat disabling conditions throughout a person's lifetime.

Why see a PM&R physician?

A PM&R physician will thoroughly assess your condition, needs, and expectations and rule out any serious medical illnesses to develop a treatment plan. By understanding your condition and goals, you and your PM&R physician can develop a treatment plan suited to your unique needs.

How do I find a PM&R physician near me?

Visit www.aapmr.org/findapmrphysician or contact your primary care physician for a referral.