

ACL Injuries

The anterior cruciate ligament (ACL) is one of four ligaments of the knee that provide stability to the knee joint and prevent the bones of the upper and lower leg from moving out of alignment. While damage to the ACL is often associated with non-contact sports such as soccer, volleyball and alpine skiing, the ACL can be damaged during many activities of daily living such as descending stairs, falling off of ladders or landing incorrectly from a jump.

Cause of Injury

Women are typically at higher risk than men for ACL injuries due to anatomic, hormonal and biomechanical differences. Wider hips and the Q-angle, or angle of the thigh bone as it meets the lower leg results in added stress on the ACL. Many women also have narrow or unusually shaped intercondylar notches that pinch the ACL as it passes over the bones of the knee joint. Higher levels of estrogen in women (especially during their menstrual cycle) have been associated with more elasticity in connective tissue, making the ACL more prone to injury. Compared to men, women typically have less lower leg strength. To compensate for less strength, women often put more force on the muscles and tendons of the lower leg, causing strain to the ACL as it attempts to stabilize the lower leg.

Signs and Symptoms

People who injure their ACL often complain of a loud popping sound or their knees giving out on them. The injury can also cause pain, swelling and difficulty flexing or extending the knee joint. Injury to the ACL often results in a partial tear of the ligament. In more serious cases, it can be completely torn from the bone.

Diagnosis

If you suspect that you've injured your ACL, it's important to have your knee evaluated by a physician. Using a stability examination, x-rays and magnetic resonance imaging (MRI) they will be able to determine the extent of your injury.

Treatment

Less serious damage to the ACL can often be treated using RICE: rest, applications of ice over the knee joint, compression with an ACE bandage to minimize swelling and elevating the knee joint above the heart. More serious injuries to the ACL may require arthroscopic surgery. Nearly all injuries to the ACL benefit from continued evaluation and treatment from a licensed physical therapist. The initial therapy will focus on decreasing pain and swelling and improving range of motion. Later stages of therapy are designed to return the patient's neuromuscular control, strength and

balance. The final stages of rehabilitation help the patient to return to normal activities and sports.

For more information regarding anterior cruciate ligament injuries, email info@vvmc.com or visit www.hhsm.com. To make an appointment for therapy, please call Howard Head Sports Medicine at (888) 652-7640.