

For Immediate Release

ACL Injuries on the Rise in Young Female Athletes
Dr. Kevin Plancher with Plancher Orthopaedics & Sports Medicine
explains reasons behind trend and offers tips on ACL injury diagnosis and treatment

New York, NY and Greenwich, CT, August 2017 –ACL injuries are common injury overall; however, young female athletes are far more likely than males to suffer a sprain or tear to their anterior cruciate ligament, which is vital to the knee’s stability, according to orthopaedic surgeon Kevin D. Plancher, MD, founder of Plancher Orthopaedics & Sports Medicine.

The disparity between ACL injury rates in young women and men has become increasingly clear in recent years. According to the National Institutes of Health, girls are 8 times more likely to suffer an ACL injury than boys. Overall, the ACL is one of the most commonly injured knee ligaments, with about 200,000 such injuries occurring each year, according to the American Academy of Orthopaedic Surgeons.

ACL injuries are prevalent largely because of the way the knee is constructed. The ligament slants diagonally in the middle of the knee, providing rotational stability to the joint and preventing the shinbone from sliding out in front of the thighbone. Athletes playing basketball, soccer, skiing and football experience many ACL injuries because of the pivoting, sudden changes in direction, hard landings and quick decelerations required in these sports.

“Research is focusing intensely on why young female athletes are more prone to ACL injuries than boys and men,” says Dr. Plancher, who lectures globally on issues related to orthopaedic procedures and sports injury management. “What scientists are learning is not only helpful to orthopaedic surgeons, but also to coaches, athletic trainers, parents and athletes themselves. We can try to use this information to prevent these often-devastating injuries or reduce their seriousness.”

Why ACL tears in young women are increasing

More girls are playing organized sports in high school than ever before, with the Women’s Sports Foundation estimating a 900% growth in participation since the passage of Title IX in 1972. Research is revealing that girls and women are more predisposed to ACL tears or sprains because of a variety of anatomical and hormonal differences between the genders, Dr. Plancher notes.

These differences include:

- **Wider pelvis**- which makes women’s thigh bones angle inward more sharply, a position at higher risk for an ACL tear.
- **More lax ligaments**- “elasticity” that may contribute to torn ACLs with excessive joint movement.
- **Smaller femoral notch**- where the ACL is located – with a smaller ACL itself.
- **Slower reflex time**- which, even at just a millisecond longer than in men, can lead to a higher injury rate in knee-stabilizing structures.
- **Estrogen level changes**- Normal menstrual cycle timing may correlate with ACL tears.
- **Flat-footed landings**- which is harder on the knee than landing on the ball of the foot.
- **Hamstring weakness**- which can lead to an imbalance in the power of the thigh muscles to handle sharp movements.

Tips on diagnosis and treatment

Regardless of gender, ACL injuries are diagnosed, classified, and treated similarly – depending, of course, on how severe the sprain or tear is. Proper diagnosis includes a thorough physical exam that checks the knee for swelling, tenderness, and range of motion. Furthermore, imaging exams such as x-rays, MRI scans, and ultrasound may be used to evaluate bone and soft tissue in the knee. MRI scans typically are the best imaging scan to determine the extent of an ACL injury, Dr. Plancher says.

Treating an ACL injury often begins with rest, ice, compression or elevation of the knee. Physical therapy typically follows, with the goal of reducing pain and swelling, increasing range of motion and

strengthening muscles. For those who don't play organized sports, physical therapy may sufficiently restore their knee's function.

But for athletes who want to continue their sport – especially if it includes pivoting, cutting or jumping – or others who wish to remain quite active, ACL reconstruction surgery is often considered, says Dr. Plancher. The procedure removes the damaged ACL and replaces it with a graft taken from another part of the patient's body or a deceased donor.

“Successful ACL surgery, which is typically followed by more physical therapy, can bring athletes back to their prior performance level for next season,” he says. “ACL injuries may be common, but they don't have to spell the end of athletic participation.”

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