

## How Can You Reduce Your Risk of an ACL Injury?

It is one of an athlete's most feared injuries. Whether you are an advanced athlete, in youth athletics or just a weekend warrior everyone knows an Anterior Cruciate Ligament (ACL) injury is going to leave you sidelined for the season.

If you are a female athlete, your risk is anywhere from 4 to 8 times higher than a male for an ACL injury. Studies indicate multiple factors for this increased risk. One is anatomical differences in males and females. Females have a wider pelvis which changes the angle that the knee joint is aligned with. Research indicates that females depend on quadriceps muscle strength and less on hamstring muscle strength to stabilize the knee. Further studies have shown that females' electromechanical response times are slower than males', meaning it takes longer for a female's leg muscles to react to a stimulus and stabilize the knee. Another study showed that females had more laxity in their knees. This research has shown multiple anatomical and physiological differences responsible for putting ladies of all ages at more risk for this serious knee injury.

The good news is that research has also proven a good ACL prevention exercise program can reduce the likelihood of an ACL injury. One study showed that athletes that trained in an ACL prevention program were almost 5 times less likely to suffer an ACL injury compared to those that did not train in a prevention program.

A good ACL prevention program goes well beyond general strengthening and stretching. It will focus on jump training, plyometric drills and agility drills. It will focus on re-training the neuromuscular pattern, train to improve reaction time, train the athlete to control knee hyperextension and improve the knee position on landing, train neuromuscular control and protective mechanisms and reflexes.

Lou Rossi, DC and Matt Trnka, PT work with many injured athletes to rehabilitate them back to sports participation. They are certified by the national strength and conditioning association. If your team would like to participate in a prevention clinic, please contact Centerpointe Chiropractic and Physical Therapy at (330) 723-2225 to set a date.