

Can we protect the ACL?

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If you watch sports and pay attention to the injuries which occur, you undoubtedly know that a tear of the anterior cruciate ligament (ACL) of the knee is one of the most common and serious injuries that can happen. Unfortunately for the female athlete, research has shown they are two to ten times more likely

to sustain an ACL injury than their male counterparts. So knowing this, is there any way for an athlete, especially the female athlete, to protect their knee against this devastating injury?

While there is no way a person can 100% prevent an ACL injury, there are activities/exercises an athlete can do to help reduce his/her risk. One of the most important actions a person can take is strengthening of the hip and gluteal muscles. These are the main muscles that control the movements of femur (thigh bone). If these muscles are too weak, the femur will excessively rotate internally (rotate to the inside). By rotating too much internally, the ACL becomes very susceptible to getting clipped by the condyle of the femur and thus tearing it. This is significant for female athletes as research has shown they are weaker in these muscles than males. As males get older, they continue to become stronger in the hips and gluteals, where female strength will actually "level off". Therefore, it is vitally

important for female athletes to perform strength training exercises for these muscles throughout their athletic careers and beyond.

Another activity an athlete can do is work on jumping and landing techniques. Playing any sports in upright position (knees and hip close to fully extended) can leave the athlete in a position susceptible to numerous injuries including the ACL. By jumping and landing with the knees bent, an athlete puts the ACL in a much more protected position. Also, an athlete should focus on jumping with their feet positioned in an athletic position with their feet shoulder width apart. Sports are played in an athletic position, so it makes sense to train them and teach them how to do things out of that position. As they progress and their hip and gluteal strength becomes better, single leg hops should be incorporated into their jumping and landing program. This will help with their balance and functional sport movements.

The third activity an athlete should be doing to help reduce their risk of an ACL injury is working on agility drills. There are numerous drills that, if taught biomechanically correct, will help to enhance the coordination of an athlete. For an athlete, learning how to change direction in the proper position and figuring out how their body moves can have dramatic effects in reducing the risk of any injury.

While there is no way we can truly prevent an ACL injury from happening, there are measures an athlete can take to reduce their risk. Again, with female athletes being more

susceptible to ACL injuries, it is extremely important for them to work on the above mentioned activities to help fix any biomechanical issues. Strength of the hip and gluteal muscles is the key to better control of the femur which then can lead to better jumping and landing techniques and better coordination of sport specific movements. Structured athletic enhancement programs, such as the Sanford POWER Program, are well versed in the instruction and administration of these important exercises to help reduce injury risk.

For more information call:

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