



COULD YOUR DAUGHTER BE NEXT FOR AN ACL TEAR?

Would the parent of a football player let their son play next Sunday's game without a helmet? Of course, the answer is always NO. This happens every day when female athletes take the soccer field, lacrosse field, basketball court or tennis court - UNPREPARED. Studies have shown that female athletes tear their ACL 4 to 6 times more often than men.

Potential reasons females are at higher risk for knee injury:

What you can change and what you can't!

These causes are consistent with female anatomy and typically cannot be changed.

1. **Increased Q angle** due to a wider pelvis.
2. **Ligamentous Injury** can occur due to female hormones causing **looseness of the muscles, tendons and ligaments.**
3. **Anatomical differences** due to women having a narrower intercondylar notch. This can pinch the ACL as the knee bends and extends, especially during twisting movements like a cut.

Fortunately, the following causes are absolutely preventable and can ALL be improved through a great training program.

1. Lack of Eccentric Strength
2. Lack of Muscular Balance between Quads and Hamstring/ Glute Complex
3. Lack of technique (especially during the stopping portion of a cut)
4. Lack of Conditioning

Back in November we had a soccer/lacrosse player hobble through our door that had been dealing with excruciating knee pain for years. She had just finished the soccer season and was very disappointed in her inability to compete because of her knee. She was a very talented athlete but had no confidence in her knee and it affected her performance. After 4 months she is now ripping up the lacrosse field and feels better than ever.

What did she do?

#1 She got Strong! Three times a week she strength trained her entire body. She performed many lower body strength exercises on one leg to improve stability and strengthen all the muscles around her knee. This allowed the muscles to absorb force and not her knee. Other exercises included dead lifts, bench press variations, push-ups, chins, rows, and tons of core stability training. Before each session she performed Glute and VMO activation exercises to make sure the muscles that stabilize the knee were firing.

#2 She learned how to Decelerate! Learning how to land from a jump is an essential part of injury prevention. The first month of the program was teaching her to land softly in a great body position. In

terms of getting faster, she learned how to stop. Every sprint ended with a stop in a great body position. All these drills allowed her to make more efficient cuts and take the stress off the knee, allowing the muscles to absorb the force when making a cut.

#3 She got in Shape! Athletes are much more prone to injury when they are tired. The risk of a knee or an ankle injury increases big time when the athlete does not have control over their body. Being tired also causes an athlete to play in a more upright and straight legged position, a major cause of ACL tears. She performed intervals specific to her sport. After 4 months of the Airdyne Bike and pushing the Prowler, a lacrosse game seems easy!

Female athletes should not wait until they have a problem to start training to prevent injury. Female athletes need to strength train more than males, definitely the opposite of what we usually see. ACL and other knee injuries are very preventable with proper training.

TEST YOUR DAUGHTER: DO NOT let your female athlete go out onto the field unprepared. To see if your daughter is at an increased risk for an injury, have her step off a 12 inch box and immediately jump in the air. If the knees knock together then she needs to start training immediately!

Following the 3 steps above will put your daughter at much less risk for a knee injury and lead to a more enjoyable and fulfilling high school and college sports experience.

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