

## **ACL Injury Prevention: Does One Size Fit All?**

**Learning Objective:** By attending this lecture, you will:

1. understand the reasons why female soccer players are at an increased risk for non-contact ACL injuries;
2. be able to identify faulty movement patterns in your athletes; and
3. have the ability to implement an effective strategy into your practice routine that will considerably reduce the risk of non-contact ACL injuries.

What you will learn about is not just another ACL injury prevention program but a developmentally progressive approach to teaching female soccer players how to perform basic movements more effectively at any level.

Female soccer players are three to five times more likely to sustain a non-contact ACL injury compared to male soccer players. In addition to lost playing time and staggering medical costs, athletes are also at risk of losing scholarships, reduced academic performance and developing osteoarthritis later in life. Therefore the ramifications of this injury are much broader than just the immediate loss of the ability to participate in soccer.

Despite a tremendous amount of scientific and media attention about this particular injury, a recent report by the NCAA indicated that the rate for ACL tears in female soccer players has not changed over a 15-year period. In addition, available ACL injury prevention programs have only been shown to reduce injury risk in younger athletes, not advanced or elite players. These data suggest that current strategies to prevent non-contact ACL injuries need improvement in order to become more effective for a wider range of female soccer players. The key is knowing how to make drills and exercises developmentally appropriate. This lecture will describe how to modify drills so they become suited for players from youth programs to the Women's National Team.

Before puberty, boys and girls have similar movement characteristics; in other words, they run, jump, land and change directions with similar biomechanics. After puberty, however, noticeable gender differences are observed for these basic motor skills. Therefore, injury prevention strategies need to focus on teaching how athletes how to properly perform simple as well as complex motor skills. Some common techniques include:

- \* changing "stiff" landings into "soft" landings
- \* teaching athletes to keep the hips, knees and feet pointed forward while moving
- \* replacing the one step stop with multiple, smaller steps
- \* general strength and balance exercises