

Virtual Learning

The effect of foot landing position on biomechanical
risk factors associated with ACL Injury

Biomechanics of Sports

5/15/2020



Lesson: 5/15/2020

Objective/Learning Target:

1. The student will learn about the effect of foot landing position on biomechanical risk factors associated with ACL Injury.

NFL Non-Contact Prevalence

Non-contact and Full Speed practice rules create less impact on various skeletal and soft brain tissues of the human body.

Full-speed and non-contact is how ACL tears most commonly occur (70-80 percent of the time).



Biomechanical factors with foot landing

the effects of three foot landing positions, “toe-in”, “toe-out” and “neutral”



Biomechanical factors with foot landing

Relative to neutral, the toe-in position increases the biomechanical risk factors for ACL injury



Biomechanical factors with foot landing

The toe-out position decreases these biomechanical risk factors



Comparative application

Compared to males, females demonstrate greater changes in lower extremity biomechanics with changes in foot landing position.

Why do you think that might be?