

Purpose:

Non-contact lower-extremity injuries are highly prevalent in lacrosse and represent a critical target for prevention. This study aimed to quantify injury prevalence in collegiate lacrosse players and identify key risk factors including shoe type, foot structure, playing-surface, and game-context to inform targeted prevention strategies.

Methods:

A retrospective questionnaire included 132 NCAA lacrosse players aged 18–25 (95 females, 37 males). Data collected included demographics, playing and injury history, footwear, and foot-arch type. Injuries were analyzed descriptively, with proportions stratified by gender, age, footwear, surface, and practice versus game scenarios.

Results:

Foot arch distribution was 67.4% rectus, 15.2% cavus, 14.4% planus, and 3% unsure. Players included midfielders (30%), attackers (30%), defenders (29%), and goalies (11%).

Before age 18, 27% of athletes reported a lower-extremity injury (22% females, 38% males) at an average age of 16. Most injuries occurred on offense (61%), affected the knee (56.5%), occurred in cleats (73.2%) on artificial turf (63.4%), involved ball possession (56.1%), and happened during games (75.6%).

After age 18, 33.1% of athletes reported at least one lower-extremity injury. Injuries occurred mainly on offense (63.5%), with females most often injuring the knee (55.8%) and males the ankle (31.8%). Most occurred in cleats (64.9%), on artificial turf (89.2%), without ball possession (73.5%), and during practice (79.7%).

Of athletes injured before age 18, 66% experienced a subsequent injury after 18.

Conclusion:

Lower-extremity injuries in collegiate lacrosse demonstrate consistent, modifiable patterns across development. Risk shifts from game-based injuries before age 18 to practice-based injuries after 18, with offensive play consistently involved. Most pre-18 injuries occur with ball possession, while post-18 injuries occur without ball possession. Cleats and artificial turf are common contributors across sexes and age groups, and athletes injured before age 18 frequently experience recurrent injuries. These findings highlight age-specific, actionable targets for injury prevention programs.

Figure 1. Timing of Female and Male lower-extremity injury prevalence, Practive vs Game, Before and After 18

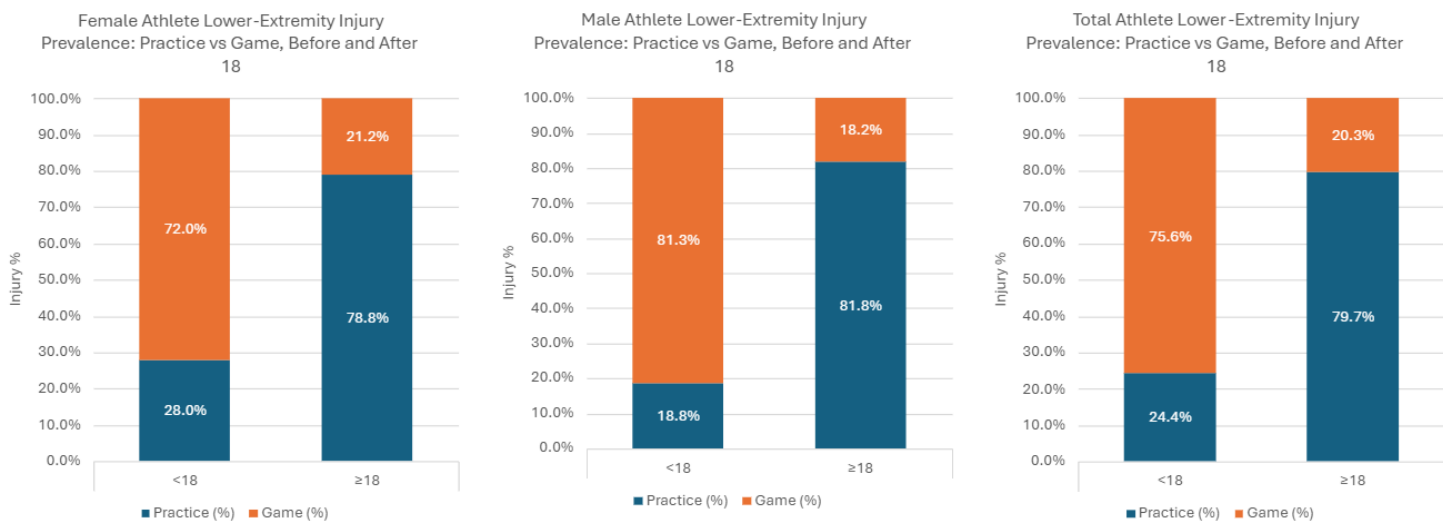


Figure 2. Lower-Extremity Injuries by Gender and Age: Surface and Footwear Percentages

