

Can In-Season Athletic Injury be Predicted by a Preseason Functional Movement Screen™?

ABSTRACT

Injuries in sports are costly in both an economic sense, as well as costly towards a team's performance. In recent years, a progressive paradigm shift has occurred, as a more proactive approach to injury treatment and rehabilitation involves something called, prehabilitation, or preventing injuries before they even occur. **Objective:** This study examines the potential of the Functional Movement Screen™ predict in-season injuries by comparing the in-season injury rates of two groups of collegiate athletes: those with a low composite score (≤ 14) and those with a high composite score (>14) on a pre-season FMS™. **Methods:** The seven movement patterns that are the FMS™ were performed on 122 varsity collegiate athletes from the following sports: men's ice hockey, men's and women's basketball, men's and women's swimming and diving, baseball, and men's lacrosse. Injury tracking was achieved using the SportsWare injury tracking database. **Results:** No significance difference was found between the injury rates for those with high and low composite FMS™ scores ($p = 0.15$). However, those that were injured had a significantly lower mean FMS™ score (15.4 ± 2.3) than those that were uninjured (16.4 ± 2.8) ($p < 0.05$). Men's lacrosse was the only sport to demonstrate significantly lower mean FMS™ score in those that were injured (14.6 ± 2.6) when compared with those that were uninjured (16.7 ± 2.3) ($p < 0.05$). **Conclusion:** The practical application of using a composite FMS™ score to predict injury is questionable, due to the lack of a significant difference in mean FMS™ scores between injured and uninjured athletes in six of the seven sports teams, as well as a lack of significance in injury rates between high and low scores across all sports. However, further analysis of individual scores on the seven movements that make up the FMS™ warrants further investigation.