

CAN INJURY RISK CATEGORY BE CHANGED IN ATHLETES? AN ANALYSIS OF AN INJURY PREVENTION SYSTEM

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ABSTRACT

Background and Purpose: Researchers have used an injury risk algorithm utilizing demographic data, injury history, the Functional Movement Screen™ (FMS™) and Lower Quarter Y Balance Test™ (YBT™) scores to categorize individual injury risk. The purpose of this study was to identify if a group-based hybrid injury prevention program utilizing key factors from previous research with the addition of an individualized approach can modify the injury risk category of athletes.

Study Design: Cohort Study

Methods: Forty-four female subjects (ages 14-17) were recruited from a local high school soccer team. Pre-participation testing included demographic data, injury history, FMS™ and YBT™ to determine if each athletes' injury risk category using the Move2Perform algorithm. Post-testing took place after an eight-week exercise-based intervention program was completed. McNemar analysis was utilized to assess changes in the injury risk categories.

Results: A significant number of athletes (21 of 44) moved to lower risk categories at posttest ($p=0.000$; $Z=-3.869$). Of the 32 athletes in the High Risk category at pretest, 16 were Low Risk after the intervention ($p=0.002$).

Conclusions: A preseason, group injury prevention training program with individually prescribed corrective exercises, resulted in a significant number of subjects decreasing their injury risk category. The primary statistically significant decrease of injury risk category was seen in the Moderate Risk individuals moving down to Slight. There were three athletes that moved from the Substantial Risk category to Slight, however, this change was not statistically significant.

Key Words: Movement system, injury prevention training program, risk category

Level of Evidence: 2

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Conflict of interest: Dr. Plisky developed the Y Balance Test™ and Drs. Plisky and Kiesel have equity in Functional Movement Systems™ which owns the Y Balance Test™ and Functional Movement Screen™ as well as Move2Perform, LLC.

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