

THE FUNCTIONAL MOVEMENT SCREEN (FMS™) IN ELITE YOUNG SOCCER PLAYERS BETWEEN 14 AND 20 YEARS: COMPOSITE SCORE, INDIVIDUAL-TEST SCORES AND ASYMMETRIES

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ABSTRACT

Background: The Functional Movement Screen (FMS™) is a widely used seven-test battery used by practitioners working in sport medicine. The FMS™ composite score (sum of seven tests) in soccer athletes from different competitive levels has been well explored in literature, but the specific movement deficits presented by young high competitive level players remains unclear.

Purpose: The aim of the present study was to provide a detailed description of the performance of elite young soccer players (age 14-20 years) on the FMS™ testing battery.

Study design: Cross-sectional observational study.

Methods: One-hundred and three young soccer players (14-20 years) from a premier league club were assessed by two experienced raters using the FMS™ testing battery. FMS™ composite score, individual-test scores and asymmetries were considered for analysis, and comparisons between age categories were performed.

Results: FMS™ composite scores ranged from 9 to 16 points (median = 13 points). 82% of the athletes had a composite score ≤14 points, and 91% were classified into the “Fail” group (score 0 or 1 in at least one test). Almost half of athletes (48%) had poor performance (i.e., individual score < 2) in “deep squat” test. Most of athletes in the younger categories (under-15 and under-16) had poor performance in the “trunk stability push-up” test (70%) and in the “rotary stability” test (74%). Asymmetry in at least one of five unilateral FMS™ tests was found in 65% of athletes.

Conclusion: High-performance young soccer players have important functional deficits, especially in tasks involving deep squat and trunk stability, as well as high prevalence of asymmetry between right and left body side.

Level of evidence: 3a.

Key words: Athletic performance, FMS™, human movement, injury prevention, movement system, soccer.

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