Functional Movement Screen Scores in High School Football Players

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The Functional Movement Screen (FMS) is a 7-step screen that identifies major fundamental pattern limitations and asymmetries to determine potential injury risk. Previous reports have presented normative data for FMS scores, and shown that low composite scores (≤14) and pattern asymmetry are associated with increased risk of injury in professional football players. To our knowledge, descriptive FMS data for HS football players has yet to be presented. **PURPOSE:** Develop normative data and distributions of scores for the FMS in HS football players. **METHODS:** A total of 60 HS football players (15.3±1.1yrs; 180.9±6.9cm; 82.1±15.5kg) completed FMS testing prior to the start of the 2015 football season. The FMS was comprised of the deep squat (DS), push-up (PU), shoulder mobility (SM), in-line lunge (ILL), hurdle step (HS), active straight leg raise (ASLR), and rotary stability (RS), which were scored on a 0-3 scale with a max. score of 21. A score of 3 on any test indicated full movement completion without compensation. A score of 2 indicates movement completion but with compensation; a score of 1 indicates the movement was not completed; and a score of 0 was recorded if pain was reported. Descriptive statistics were calculated for FMS results. FMS composite scores were dichotomized as low (≤14) versus high (>14) whereas movement asymmetry was defined as the presence of 1 or more right/left differences on any of the 5 tests scored unilaterally (HS, ILL, SM, ASLR, RS). **RESULTS:** The mean composite FMS score was 12.9±2.2 (range 5 – 16), with 14 being the most frequent score among players (23.3%). The majority (44 of 40; 73.3%) of participants scored ≤14, whereas 33.3% (20 of 60) of players had scores ≤12. Approximately half of the players (31 of 60) had 1 or more asymmetries on any of the movements scored unilaterally; 25.0% (15 of 60) had 2 or more asymmetries. Almost half (26 of 60; 43.3%) of the participants scored ≤14 and had at least 1 asymmetry. The highest frequency of 1s was recorded on the DS (48.3%), while RS had the highest frequency of 2s (86.7%). The SM test had the highest frequency of 3 as a score (58.3%). **CONCLUSION:** FMS scores in HS football players were lower than previously reported for collegiate and professional players. Future work will determine if low FMS scores and pattern asymmetry are predictors of injury in HS football players.