

The FIFA 11+ for injury prevention in amateur futsal players

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ABSTRACT

BACKGROUND: The fast growth in the rates of futsal participation has increased the awareness and concern of public health, as it was estimated that the rate of injuries in futsal is the double of football^[1]. Preventive measures should be a part of planning of a sports season, as any type of time-loss injury is associated to decreased sport participation of the athlete, which affects any level of team sports participation which leads to costs to the club, time-loss at work, as well as may lead to long-term morbidity and additional costs to the health system^[2-5]. The FIFA 11+, can lead to a 30 – 50% reduction in injuries^[6, 7]. No study was conducted so far to examine the effectiveness of the FIFA 11+ program in reducing injury in futsal players. **OBJECTIVE:** To examine the effectiveness of the FIFA 11+ in reducing injury in futsal players. **METHODS:** This study, was a parallel, two-group, stratified randomized controlled trial. Ninety-one male futsal players from six amateur futsal clubs were recruited and assessed for eligibility. Seventy-one were randomized to the FIFA 11+ group (n=37, age: 27.0±5.1 years) and a control group (n=34, age: 26.0±5.1 years). The FIFA 11+ program was executed twice a week, replacing the regular warm-ups of the experimental teams during training sessions, for 20 weeks, separated by a 10-week period where both groups executed their regular warm-up. Data on match, training exposure and injuries were recorded during the regular season. Injury incidence rates (number of injuries/1000 player-hours) were calculated for each of the two randomized groups. The independent T-test and chi-square were used to compare variables between groups. **RESULTS:** The players sustained a total of 58 injuries during the futsal regular season, of which, 24 in the FIFA 11+ group and 34 in the control group; the overall incidence of injuries per 1000 player hours was significantly higher in the control group [11.6 vs. 6.5; mean difference (95% CI), -5.1 (-9.1 to -1.1), p=0.014]. The FIFA 11+ presented a significantly lower incidence of acute [11.2 vs. 5.7; -5.5 (-9.4 to -1.6), p=0.007] and lower limb [8.7 vs. 4.4; -4.2 (-8.1 to -0.4), p=0.032] injuries per 1000 player hours.

Players from the control group presented a higher number of days injured (20.4 ± 17.3 vs. 10.5 ± 9.1 , $p=0.036$). **CONCLUSIONS:** The athletes exposed to FIFA 11+ program, showed a significant reduction of overall, acute injuries, lower limb injuries as for injuries during training sessions. The FIFA 11+ is an injury prevention program suited for injury reduction in amateur futsal players.

Keywords: warm-up, injuries, injury severity, time-loss injuries, adults.

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