Conclusions Hamstring strength endurance and fatigability were both justified as potential risk factors of re-injury and should be integral parts of future rehabilitation programmes and prognostic screening.

159 HAOS OR CHAOS? THE PROGNOSTIC VALUE OF THE HAMSTRING OUTCOME SCORE (HAOS) TO PREDICT THE RISK OF HAMSTRING INJURY

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Background Hamstring injury incidence remains high among male soccer players. One of the reasons is low adherence for effective hamstring injury prevention programs. Insight in injury risk can contribute to better adherence for injury prevention measures. The hamstring outcome score (HaOS) might provide an insight in injury risk.

Objective To determine the relation between the HaOS and both previous and new hamstring injuries in male amateur soccer players, and to determine the prognostic value of the HaOS to predict the risk of hamstring injuries.

Design Data was collected during a large cluster-RCT investigating a hamstring injury prevention program.

Setting This study was executed during one competition (2016–2017) in 32 first class amateur soccer teams.

Participants 400 adult male amateur soccer players started the study.

Assessment of risk factors The participants filled in a baseline-questionnaire consisting of injury history and the HaOS. During one full competition hamstring injuries were registered prospectively.

Main outcome measurements Previous hamstring injuries, new hamstring injuries and the HaOS (total score and subdomains) were considered in this study.

Results In 356 players, a significant relation was found between the HaOS (total score and all HaOS subdomain scores) and previous and new hamstring injury ($F=17.4$; $p<0.0001$ and $T=3.59$, $p=0.001$, respectively). This indicated that more hamstring injuries during the previous season was related to lower scores on the HaOS and lower HaOS scores correspond with more new hamstring injuries. With a cut-off score of 80% on the HaOS, logistic regression models showed a probability of 11%, 18% and 28% on a new hamstring injury in players with 0, 1 or 2 previous injuries, respectively.

Conclusion The HaOS is significantly associated with both previous and new hamstring injury and might be a useful tool to provide insight in players' hamstring injury risk when used in combination with injury history.

160 ECCENTRIC HAMSTRING STRENGTH AND SPRINTING PERFORMANCE CHANGES DURING THE OFF-SEASON IN SPANISH FOOTBALLERS

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Background Low eccentric hamstring strength and sprinting performance are associated with hamstring injury (HI) in football; however, the off-season effects on both qualities are unknown.

Objective The aim of the study was to investigate eccentric hamstring strength and sprinting performance changes during the off-season period in football players.

Design Prospective cohort study.

Setting Semi-professional (3rd-4th tier) and amateur (5th-8th tier) Spanish footballers.

Patients (or Participants) Male footballers ($n=107$) were contacted to participate. Seventy-four footballers (25 ± 4 years, 178.0 ± 6.6 cm, 74.9 ± 8.1 kg) were included in final analyses.

Interventions (or Assessment of Risk Factors) Eccentric hamstring strength (Nordbord) and sprint performance (30m sprint and V-Cut test) were assessed at the beginning (May-June 2017) and end of the off-season (July-August 2017). Previous HI, age and off-season length were considered the independent variables.

Main Outcome Measurements Eccentric hamstring strength ($N\cdot kg^{-1}$), 30m sprint (5–10m splits (s)) and change-of-direction performance (s). All outcomes were proposed before any data collection. Data was analysed using paired t-tests and linear mixed models.

Results No changes in eccentric hamstring strength were found at follow-up. Large (2%, $d=0.96$; $p<0.001$) and small (1%, $d=0.46$; $p<0.001$) decrements in performance were found for 30m sprint and 10m split time at follow-up, respectively. Previous HI, age or off-season length had no effect on any of the outcomes.

Conclusions Footballers showed no reduction in eccentric hamstring strength but impaired sprint performance after the off-season period, independent of age, previous HI and length of off-season. This may suggest the risk of sustaining a HI during the pre-season is lowered, as a result of decreased maximal