

# NORDIC EXERCISE IN THE PREVENTION OF HAMSTRING INJURIES IN PROFESSIONAL SOCCER PLAYERS: A SYSTEMATIC REVIEW

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## ABSTRACT

**Introduction:** In professional soccer, injuries occur with great frequency, most of which are muscular, and the lower limbs are the most susceptible. Hamstring strain is the most common non-contact injury among all injuries to professional players. The unavailability of an injured player harms the team and negatively affects their performance in competition, and their absence for two weeks generates significant financial costs and a greater number of recurrences after lack of rehabilitation. Therefore, the Nordic exercise protocol seems to be effective as a preventive method for this injury. **Objective:** To demonstrate the effectiveness of Nordic exercise in preventing and reducing hamstring injuries and its relationship with eccentric hamstring strengthening, compared to other interventions in professional soccer players. **Methodology:** This randomized and descriptive systematic review was based on health-related articles published between 2019 and 2023, from original articles and randomized clinical trials available in English and Portuguese, excluding narrative reviews, meta-analyses and systematic reviews. PubMed, Capes and Cochrane were used for data collection. **Results:** Six articles were included and the average score for the 10 items of the PEDro scale was 5.5/10 points, with scores ranging from 4/10 to 8/10, corresponding to moderate quality and risk of bias. The results of this study corroborate two other reviews already conducted (integrative and systematic/meta-analysis) with the aim of evaluating significant positive results in reducing the incidence of hamstring strain injuries and preventing them in a simple, safe and non-invasive way in soccer players. **Conclusion:** Despite its limitations, this study showed positive results regarding the effects of Nordic exercise, so this review provides soccer coaches with a valid tool for the prevention of acute hamstring injuries. However, there is a lack of high quality articles on the subject, highlighting the need for studies of methodological excellence to help reduce uncertainties about the effectiveness of this form of prevention in sport.

**Keywords:** Hamstring; Nordic exercise; Prevention; Professional soccer.

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