

Andersson HA, Randers MB, Heiner-Møller A, Krstrup P, Mohr M. Elite female soccer players perform more high-intensity running when playing in international games compared with domestic league games. J Strength Cond Res. 2010 Apr;24(4):912-9.

Abstract

The purpose of this study was to compare movement pattern, fatigue development, and heart rate (HR) for top-class elite female players when playing international (INT) vs. domestic league games (DOM). Video-based time-motion analyses and HR recordings were performed on 17 players during INT and DOM. The distances covered in high-intensity running (HIR) and sprinting were longer ($p < 0.05$) in INT compared with DOM. More ($p < 0.05$) HIR was covered in INT than DOM during first and second half. Additionally, more ($p < 0.05$) sprinting occurred in INT compared with DOM in the first half. In both game types, the amount of HIR was reduced by 24-27% ($p < 0.05$) in the last 15-minute period compared with the first four 15-minute periods of the game. The midfielders covered longer ($p < 0.05$) distances with HIR in INT than in DOM over the entire game and in the most intense 5-minute period of the games, whereas no differences were observed between the game types for defenders. No difference in the HR response was found between INT and DOM. In conclusion, more HIR and sprinting occur in international compared with domestic games, which may affect the fatigue development for players in physically demanding roles. Thus, our results are important to coaches to prepare players to meet the challenges of international soccer games and show that the ability to perform intense intermittent exercise should be trained regularly in elite female players.