## Differences in Activity Patterns between Adult and U-21 Major League Players in Four Field Positions

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**Abstract :** The Purpose was to measure differences in activity patterns between major league adult and U-21 soccer players. Four U-21 players and four adult team players were evaluated using a repeated measures technique. All eight players were affiliated with the Maccabi Haifa soccer club from the Israeli professional and U-21major leagues, depending on the player's age. GPS sensors were attached to the players during five consecutive games to identify patterns regarding running distance and speed according to the field positions. There was no significant difference in the total running distances covered by two age groups. When measuring running speed, an advantage was observed in the adult group when comparing two players from different age groups that played the same position. Differences in activity patterns were evident between adult and U-21 major league soccer players. Furthermore, differences in within group activity pattern emerged between the positions under investigation. These findings provide valuable knowledge that may serve the principle of training specificity.

Keywords : physical fitness, soccer, positional differences, GPS, training specificity

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1