

## **Abstract**

**Title:** The effect of age on selective reaction time of young soccer players after different types of previous physical load.

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**Objectives:** To find out the effect of age on selective reaction time after different types of previous physical load in youth soccer players.

**Methods:** Participants of our research were soccer players from FC Písek team. Our research set was composed of 21 players in three age brackets: U19 (average age:  $18 \pm 1,2$  years), U15 (average age:  $14 \pm 0,8$  years) and U9 ( $7 \pm 1,4$  years) with seven players in each age category. The selective reaction time was assessed using video projection of real game situations and afterwards evaluated using Darthfish software.

**Results:** With respect to Effect Size, we revealed the effect of age on players selective reaction time in all age categories. The selective reaction time became significantly shorter with higher age. However, statistically significant difference was proved only between U19 and U9 categories after all types of physical load and between U19 and U15 categories after aerobic type of physical load. Our results suggested that the age of players and probably the length of their game experience shorten significantly the selective reaction time on specific playing stimuli.

**Keywords:** selective reaction speed, perception, age bracket, football, statistics, Darthfish, cognitive skill