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Published scientific paper - Speed, Change of Direction Speed and Reactive Agility in Adolescent Soccer Players: Age Related Differences

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There are a plethora of studies investigating agility in soccer; however, studies have rarely presented the reaction time in differentiating age groups in adolescent soccer players. We investigated age differences in reactive agility, speed, and change of direction speed (CODs), in a group of highly trained adolescent soccer players. A total of 75 adolescent male soccer players (aged 14–19 years) were recruited. The players were grouped based on their age to under 15 (U15; $n = 27$), under 17 (U17; $n = 25$), and under 19 (U19; $n = 23$) players. Players were tested for 5 m, 10 m, and 20 m sprint, CODs speed test, Illinois test, and reactive agility test (total and reaction time). Only the reactive agility test with a live tester (RAT live) and RAT live reaction time (RAT live RT) distinguished U19 from both groups, U17 (RAT live, $p < 0.01$; RAT RT live, $p < 0.01$) and U15 (RAT live, $p < 0.01$; RAT RT live, $p < 0.01$). Groups did not have different times for 5 m sprint, RAT light and RAT RT light, $F = 0.472, 2.691, 1.023$, respectively, $p > 0.05$. Moreover, a significantly slower average performance of sprint 20, CODs left and right, and Illinois was also observed in U15 as compared to U17 and U19 ($p < 0.05$). We can conclude that results in agility tests that include live testers can be a significant factor that differentiates between adolescent soccer players considering their age.

