

Physical capacity and match running performance in very young soccer players

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Aim. The aim of this study was to analyze match running performance in relation to age and individual physical capacity in youth soccer players aged 8-10 years.

Methods. Physical capacity of 12 under-10 (U10) and 15 under-8 (U8) male players was assessed by counter movement jump (CMJ), 20 meter shuttle run (20m-SR) and 10, 20 and 30 meters (10m, 20m and 30m) sprint tests. Shuttle dribble test (SHD) and slalom dribble test (SLD) were also performed to evaluate technical ability. Time motion analyses by global positioning system (K-Gps 10Hz, K-Sport) were performed during 30 (200 observations) official matches (lasting three equal periods of 15-min).

Results. U10 vs U8 showed a better shuttle-running performance (1215±77 vs 872±78m, $p<0.005$), a lower sprint time on 20m (4.15±0.05 vs 4.38±0.07s, $p<0.05$) and 30m (5.72±0.06 vs 6.31±0.08s, $p<0.0001$) and a better technical ability (SDL: 10.7±0.2 vs 11.8±0.2, $p<0.001$; SHD: 22.3±0.3 vs 29.4±0.7s, $p<0.0001$). No differences were observed in CMJ and 10m. U10 covered higher total (3437±137 vs 2348±124m, $p<0.0001$) and high-intensity distance (1455±104m vs 992±116m, $p<0.005$) than U8. Distance covered at high-intensity in the third time was not significantly different from first and second time both for U10 and U8. A linear relationship ($r^2=0.74$, $p<0.0001$) was observed between high-intensity distance and 20m-SR.

Conclusions. This is the first study characterizing the match running activity of very young soccer players. If confirmed in a larger population, these data could be used by coaches and support staff as starting point in the design of training programs.