

Acute effect of different sets of ballistic stretching protocol on repeated sprint performance among football players

ABSTRACT

This study aimed to compare the effects of different sets of ballistic stretching protocol on repeated sprint ability (RSA) performance among football players. Fourteen male university football players [age (mean \pm SD) 23.4 ± 1.3 years, body mass 70.0 ± 4.8 kg, height 171.6 ± 5.8 cm, body mass index (BMI) 23.4 ± 2.1 kg.m⁻²] underwent 4 sessions in the counterbalance design. All sessions included a general warm-up, followed by a ballistic stretching protocol (one set –DSS1; two sets –DSS2; three sets – DSS3) consists of 5 ballistic exercises (gastrocnemius, gluteus maximus, hamstrings, quadriceps femoris and hip extensions). A standardized specific warm-up was then undertaken followed by 5 x 20- m with interspersed 30-s active recovery. The finding of study shown a values of total time sprint (TST), mean time sprint (MST) and best time sprint (BST) were significant faster for BSS1 compared to BSS2 and BSS3 ($P < 0.05$). Fatigue index (FI) was significantly lower in BSS1 compared to BSS2 and BSS3 ($P < 0.05$). Heart rate and rating of perceived exertion (RPE) also were showed significantly lower value for BSS1 compared to BSS2 and BSS3 ($P < 0.05$). In conclusion, the performed a single set of ballistic stretching may induce a significant improvement in 20-m RSA performance.