

## Effects of the Different Recovery Durations on Some Physiological Parameters during 3 X 3 Small-Sided Games in Soccer

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**Abstract :** This study aimed to determine the effects of 3 versus 3 small-sided games (SSG) with different recovery times on some physiological parameters in soccer players. Twelve soccer players from Regional Amateur League volunteered for this study (mean $\pm$ SD age, 20.50 $\pm$ 2.43 years; height, 177.73 $\pm$ 4.13 cm; weight, 70.83 $\pm$ 8.38 kg). Subjects were performing soccer training for five days per week. The protocol of the study was approved by the local ethic committee in School of Physical Education and Sport, Selcuk University. The subjects were divided into teams with 3 players according to Yo-Yo Intermittent Recovery Test. The field dimension was 26 m wide and 34 m in length. Subjects performed two times in a random order a series of 3 bouts of 3-a-side SSGs with 3 min and 5 min recovery durations. In SSGs, each set were performed with 6 min duration. The percent of maximal heart rate (% HRmax), blood lactate concentration (LA) and Rated Perceived Exertion (RPE) scale points were collected before the SSGs and at the end of each set. Data were analyzed by analysis of variance (ANOVA) with repeated measures. Significant differences were found between %HRmax in before SSG and 1st set, 2nd set, and 3rd set in both SSG with 3 min recovery duration and SSG with 5 min recovery duration ( $p<0.05$ ). Means of %HRmax in SSG with 3 min recovery duration at both 1st and 2nd sets were significantly higher than SSG with 5 min recovery duration ( $p<0.05$ ). No significant difference was found between sets of either SSGs in terms of LA ( $p>0.05$ ). LA in SSG with 3 min recovery duration was higher than SSG with 5 min recovery duration at 2nd sets ( $p<0.05$ ). RPE in soccer players was not different between SSGs ( $p>0.05$ ). In conclusion, this study demonstrates that exercise intensity in SSG with 3 min recovery durations is higher than SSG with 5 min recovery durations.

**Keywords :** small-sided games, soccer, heart rate, lactate

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