

Effect of Leg Massage on Recovery from High Intensity Exercise on Football Players

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Abstract

The study was conducted on fifty two Punjabi University football probable preparing for inter university competition during their training camp held at the Punjabi University, Patiala campus in the years 2006 and 2007. The age range of the subjects was 18-25 years. The players were grouped into the three categories viz. massage group, active group & passive group. The massage group was administered effleurage & kneading massage on calf & hamstring & quadriceps regions of the leg. The active group of footballers was instructed to do a light intensity exercise of 30W during the recovery period of 15 minutes. The third group designated as the passive group was given no intervention during the recovery period. It is concluded from the present study that active and massage interventions applied during recovery following maximal exercise helps the footballers to recover better in terms of heart rate and blood pressure as compared to the passive mode of recovery. Football players exhibit significantly quicker heart rate recovery following leg massage as compared to active and passive mode of recovery. Active mode of recovery on the other hand is observed to help the footballers recover faster in terms of systolic blood pressure as compared to the passive and massage recovery intervention.

Key Words: Massage, Heart Rate, Blood Pressure, Footballers

Massage research has produced equivocal findings in recent years. Some athletes and physiotherapists support claims that massage can aid recovery and optimize performance; however, most of the evidence is anecdotal. Research in the field of sports massage has been flawed by many methodological variations and poor experimental control during the test phase including: inconsistent massage duration, no standardization of warm up, absence of a period of active recovery when comparing massage with other interventions, and often no standardization of physical activity performed preceding the massage. The literature does, to some extent, support psychological benefits from massage (Hemmings *et al*, 2000), but physiological and performance benefits have never been consistently observed. Cafarelli & Flint (1992) and Tiidus (1997) suggested that, in a practical setting, massage could show performance improvements, but lack of control would devalue the results. Beneficial effects of active recovery after intense exercise are well established

(Weltman, *et al*, 1979; Dodd *et al*, 1984 & Ahmadi *et al*, 1996) research on the effect of massage on recovery of muscle function should include active recovery of some sort in all phases of the experimental design. To date, only one study has adopted this type of design in attempt to tease out any potential benefits of massage combined with active recovery versus active recovery alone or massage alone (Monedero and Donne, 2000). These findings indicate a beneficial effect of a 15 minute combined intervention, compared with active recovery or massage alone, on performance in repeated 5-minute cycle ergometer time trials. These data provide some evidence for the beneficial effect of massage when combined with a short active recovery process; however, the massage was short (7.5 minute), confined to the calf or hamstrings, and no indication of massage protocol or diet/activity control was provided. Furthermore, the main emphasis for an effect of massage in recovery from exercise is focused on improvements in blood flow and lactate clearance (Cafferelli