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THE PREVALENCE OF HAMSTRING TIGHTNESS AMONG MALE ATHLETES OF THE UNIVERSITY OF PERADENIYA

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Muscle tightness is caused by a decrease in the ability of the muscle to deform, resulting in a decrease in the range of motion at the joint on which it acts. This is a limiting factor for optimal physical performance and an important intrinsic factor in sports injury. Three muscles that are known collectively as the hamstring muscles cover the posterior thigh. Tightness in hamstring muscles leads to hamstring injuries and these injuries are the most common type of injury among athletes. These injuries are slow to recover, cause high health expenditure and decrease the performance level of the athlete. The purpose of this study was to find the prevalence of hamstring tightness among some categories of the sports and to find out whether there is a relationship between hamstring tightness and body height, femur length, duration of warm-up period and cool down period.

A self-administered questionnaire was given and each subject was checked later for deformities. Height- weight measurements, knee examination, hip examination, and Active Knee Extension (AKE) test were performed at four research stations.

Male athletes aged 20-28 years, who represented the teams of the University of Peradeniya in 2010 and 2011 participated in this study. All subjects included in the study were healthy, with no history of recent injury. The criterion for subject inclusion as tight hamstrings was defined by a knee extension range of motion less than 160°. Active knee extension angle measurements were determined using a goniometer before the athletes started their practice sessions.

The statistical significance was set at $p<0.05$. Prevalence of hamstring tightness was present at significantly higher rates among athletes who engaged in contact sports rather than athletes who engaged in athletics, martial arts and other sports. The majority of athletes had a higher percentage of hamstring tightness in the right leg. Within the confines of this study it was found that there was no significant association between hamstring tightness and body height, femoral length, duration of warm up and cool down periods in the athletes who were engaged in each category of sports.

Therefore precautions to prevent hamstring tightness should be a major concern of the athletes who are playing contact sports. The majority of athletes had a higher percentage of hamstring tightness in the right leg and the cause is unknown. Future researchers have an open area here for further study.