

## **Association between Ankle Dorsiflexion and Non-contact Low Back Pain among Adolescent Fast Bowlers in Division 1 Boys' Schools in Colombo**

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Despite the popularity of Sri Lankan cricket, there are a drastically low number of studies related to school level fast bowlers. This study aimed to investigate the association of ankle dorsiflexion with non-contact low back pain (LBP) among adolescent fast bowlers aged between 15-19 years at Colombo division 1 boys' schools in Sri Lanka. Eighty-five participants completed the prerequisites and an interviewer-administered questionnaire was used to gather the demographic data regarding general characteristics and the severity of low back pain respectively. Bowlers were prospectively observed throughout the competition period of the 2019 cricket season and the ankle dorsiflexion of both lower limbs was recorded. The Spearman correlation test was used to evaluate the association between ankle dorsiflexion and non-contact low back pain, and the Mann Whitney U test was used to assess the difference between two groups with and without LBP. 43.5% (n=37) of the players were identified as presenting with non-contact LBP. An increase in ankle dorsiflexion of non-dominant side leg was found to be significantly associated with non-contact LBP ( $P < 0.05$ ) while a conflicting result was found for the association of ankle dorsiflexion of dominant side leg with non-contact LBP ( $P > 0.05$ ). There was a significant difference in the ankle dorsiflexion of the non-dominant side leg between the fast bowlers with and without lower back pain. The results concluded that higher ankle dorsiflexion of non-dominant side leg has a crucial role in predisposing a fast bowler to have an increase in non-contact low back pain which occurred due to internal factors.

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