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How does the eccentric contraction in functional ankle instability among male student Soccer players?

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During everyday activities, concentric actions start movements while eccentric actions slow activity down. For example, during running, the quadriceps muscles will propel the runner forward with concentric actions, while the hamstrings can brake running by slowing down the forward motion. To maintain sport performance and prevent injury throughout the whole range of motion, strengthening both phases of muscle contraction is important. Isokinetic invertor and evertor torques were assessed eccentrically and concentrically at speeds of 60 and 120 degrees •s (-1) in 16 subjects with unilateral ankle instability. Absolute peak torque values were compared between the injured and non-injured limbs to determine whether strength deficits existed. No eccentric or concentric evertor strength deficit was found in the injured limb. Interestingly, for the injured limb, a significant interaction effect was found whereby eccentric inversion strength was reduced. Functional ankle instability is not associated with deficits in evertor strength. Deficits in eccentric invertor strength were found, and this may contribute to the symptoms of functional ankle instability. Weak invertors may contribute to functional ankle instability because of a reduced ability to assist in controlling lateral displacement of the shank over the weight bearing foot. Excess lateral postural sway outside of the base of support results in the foot's medial border rising from the floor once the limits of closed chain eversion is reached, which may result in the foot being forced into rapid inversion.

Biography

Mehdi Kasbparast Jui Ray is faculty member of Physical Education and Sport Sciences, Karaj branch, Islamic Azad University, Karaj and he is doctoral student in sport injury and member of Asian Society for physical Education and Sport for 15 years.

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