

TO STUDY THE EFFECTS OF ICE APPLICATION ON KNEE PROPRIOCEPTION AND LOWER LIMB FUNCTIONS

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ABSTRACT

Now a day's sports rehabilitation has become a necessity in any sports event. Joint proprioception and agility are important tools for any sports activities. Main techniques used in rehabilitation are soft tissue stretching, ice application and soft tissue manipulation. Amongst them ice application is frequently used. We are well aware of the fact that ice application can reduce nerve conduction velocity, muscle spindle afferent fiber discharge, Golgi tendon organ discharge and alter the visco-elastic properties of ligaments. The objective of the study was to check the following before and after ice application:- The angle reproduced at knee joint for 30⁰ and 45⁰; the time taken for agility functions; the distance covered in single hop test. 50 healthy subjects were assessed for proprioception of knee joint in the weight bearing position. Subjects were also assessed for the various agility functions and single hop distance. After the assessment made as above ice therapy was given to all subjects in the form of ice massage. Immediately after the ice application, proprioception was tested again and agility and single hop tests were repeated. Data collected was analyzed statistically using students paired 't' test. Study revealed statistically significant difference before and after ice application in knee joint proprioception and agility functions in individuals ($P < 0.05$). Thus ice application adversely affects the proprioception, agility functions and single hop test.