

Effects of Nordic Hamstring Exercise on Improving Hamstring Muscle Flexibility and Sprint Capacity among Collegiate Football Players

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Abstract

Introduction: Football is the most popular sport; around the world, 211 national associations are members of the International Federation of Football Association (FIFA). The number of football players has increased drastically. As a result, the number of injuries has also increased, and hamstring injuries are common in football due to the nature of the game.

Methods: The study was designed as a quasi-experimental study. A total of 30 participants who are collegiate football players were selected for this study, and they were divided into two groups by lottery method; the control group received conventional hamstring exercises with general warm-up & cool-down exercises; the experimental group received Nordic hamstring exercises and conventional hamstring exercises with a general warm-up and cool-down exercises. Both groups underwent training for 5 weeks. They were assessed before and after the training using the v-sit and reach test and repeated sprint ability test to measure their flexibility and sprint capacity.

Result: There was a significant difference in outcome measure between the conventional hamstring exercise and conventional hamstring exercise with Nordic hamstring exercise after intervention v-sit and reached the level 0.05% and considerable difference in rsat at 0.05%. However, traditional hamstring exercise with a Nordic hamstring shows more hamstring flexibility and sprint capacity improvement.

Conclusion: Nordic hamstring exercise protocol in regular practice sessions may effectively improve hamstring flexibility and sprint capacity among collegiate football players.