

Abstract

Title: The impact of plyometric training on explosive strength in floorball players

Objectives: To determine the effectiveness of a plyometric intervention program on predetermined indicators of movement capabilities in floorball players.

Methods: To ensure objectivity and comparability of the results, standardized tests were used to evaluate the explosive strength of the lower limbs of floorball players. The tests used included the 5m sprint, agility T-Test, Standing Long Jump test, and Depth Jump. The subsequent plyometric program lasted 10 weeks and was designed to improve the explosive strength of the lower limbs. It included various plyometric exercises, such as vertical jumps and other dynamic movements, which were performed in three microcycles. Data obtained from the testing were analysed to determine changes in explosive strength after completing the plyometric program. This methodological approach allowed for a detailed assessment of the impact of plyometric training on the explosive strength of the lower limbs of fifteen floorball players in the average age of 20 years old.

Results: The most important finding of the study was the positive impact of the plyometric program on the explosive strength of the lower limbs in floorball players. The greatest progress was measured in the Depth Jump test, which is directly based on plyometrics and likely led to the most significant improvement. In other tests, the participants improved on average by approximately 4%.

Keywords: Plyometrics, training program, movement diagnostics, explosive strength, leap