

Abstract

Title: Diagnosis and correction of muscle imbalances with regard to swimmers aged 12 to 17 years

Objectives: The main aim of this work is to find out what imbalances selected teen swimmers have. Further verify the effectiveness of the proposed compensation program for these swimmers.

Methods: Diagnosis of the musculoskeletal system was performed using selected tests for measuring balance abilities (Romberg test, Flamingo), examination of muscle shortening and weakening (testing according to Janda and Kopřivová and Čermák), evaluation of postural and respiratory stereotype and evaluation of deep stabilization system bed). These tests were applied to a selected group of swimmers. The measured values served as an input test (pretest), on the basis of which a compensation program was designed. After the end of the three-month compensation program, a control measurement (posttest) followed, the results of which were compared with the pretest.

Key words: Swimming, compensatory exercises, prevention of injuries to swimmers, intervention program, stabilization and mobilization system