

Abstract

Title: The Effects of Compensatory Exercises on Function of the Lumbar Spine in Badminton Players under Seventeen Years of Age.

Objectives: The objective of my bachelor thesis is to prove the effect of compensatory exercises in badminton. The other objective is to improve the function of the lumbar spine in badminton players under 17 years of age.

Methods: I used tests for a muscle length of particular muscles (musculus iliopsoas, hamstrings, adductors of the hip joint) for an examination of the function of the lumbar spine. Then tests of spine movements (Thomayer test, test of a lateral flexion of a spine), specific Trendelenburg test for examine the stabilisation of the pelvis and the specific tests of activation of the core (Kolář's tests) have been used.

I used the set of compensatory exercises for the therapy. The group of badminton players was asked to do these exercises 3 or 4 times per week for 3 months. These exercises are used to relax, stretch and reinforce the lumbar spine muscles.

Results: In a practical part of my thesis there I have found the improvement mainly in tests of shortened muscles, in the test of lateral flexion of the spine, in the Thomayer test, in the quadrupedal tests and in the test of intra-abdominal pressure.

Keywords: badminton, compensatory exercises, lumbar spine