

# ABSTRACT

**Title:** Compensatory exercises in synchronized swimming.

**Objectives:** The objective of the study is to evaluate the effect of compensatory exercises on the musculoskeletal system of athletes in synchronized swimming. The objective was focused on the prevention of injuries, improvement of the training process and overall improvement of the performance of female swimmers. A sub-objective of this thesis was to raise awareness of the importance of incorporating compensatory exercises into the training process in synchronized swimming in the Czech Republic

**Methods:** The thesis was addressed first by initial musculoskeletal testing, followed by a movement intervention. The movement intervention was followed by exit testing. The initial and exit testing included: aspect testing, hypermobility testing, shortened muscle testing and functional muscle testing.

**Results:** A total of 12 female athletes aged 13-15 years were included in the study. The competitors differed in the number of training units and performance class. During the entry and exit tests, it was found that compensatory exercise had a positive effect on the posture of the female racers. Compensatory exercise had an overall intervention effect of  $d=0.92$ . i.e. a large effect during this research.

**Keywords:** Synchronized swimming, compensatory exercises, regeneration, sports performance