## **Abstract**

The master thesis focuses on muscle imbalances occuring in a increasing number of children and its reparation by swimming and exercising in an aquatic environment. The thesis contains two sections - theoretical and practical. The teoretical part informs about history and consequence of swimming, influence of aquatic environment on human organism, young school age children and muscle imbalances. The practical part fuceses on the defined hypothesis confirmation or falsification and on answering the questions of the research. The methods used, are questioning (questionnaire and interwiev) and observation. The disquisition took a place in Pražačka swimming pool, primary school Dědina and primary school Kavčí hory. There were 13 children, 66 parents and 112 school employees involved. It was detected that a large number of children has at least one muscle imbalance After the four month reserach it was confirmed that the aquatic environment has a positive influence on posture and major part of the children group has improved their swimming skills. An important finding is that almost all primary schools we were working with has swimming included in theis curriculum. Other finding is that parents attend swimming pools etc. less often than we've expected. The thesis conclusion contains overall summary of the findings that were made.