## **Abstract**

This thesis focuses on the physiological and biomechanical relation between rowing and function of the respiratory system. The theoretical part summarizes various possibilities of using the inspiratory muscle training, primarily on accessible information about its use during elite rowers preparation. The thesis contains three case studies of elite female rowers who followed the inspiratory muscle training according to Volianitis's et al. methodology from 2001. Changes in performance of simulated rowing race and in PI<sub>max</sub> were monitored. Despite the insufficient compliance of prescribed training, we see an improvement of the observed parameters.