## Abstract:

This bachelor's thesis deals with the impact of activation of core muscles on postural function in patients with multiple sclerosis (MS). The aim is to assess the effect of Acral coactivational therapy (ACT) on core activation. Furthermore, we will be tracking the suitability of using this method with different types of MS. The thesis has a practical and a theoretical section. The theoretical section deals with the illness of MS, the term core muscles is defined here along with its effect on postural function and lastly, there is a chapter addressing the ACT method. The practical section involved six patients with three types of MS. The effect of the ACT method is described using two case studies. The results confirming the effect of the therapy are presented in the form of tables and graphs. The effect on postural function was assessed by aspect examination while sitting, standing and in movement strategy tests and also by walking tests (Timed 25 foot walk test, Timed up and go test and one leg stand). Core muslce activation was examined using tests by Professor Kolář. The discussion contains a comparison of our results with the results of foreign studies dealing with this issue. The results show an improvement in core muscle activation in all patients. The movement strategy tests which is part of Acral coactivational diagnosis shows positive effect of activation core muscles on postural function.