Abstract

**Title:** Speed and Quality of Muscle Contraction of Acrobatic Rock and Roll Dancers

**Objectives:** The aim of this thesis is to diagnose the speed and quality of the muscular contraction of the lower limbs in acrobatic Rock and Roll dancers based on measurements on the tensiomyofraph. A partial goal is to describe the method and course of measurement, including the interpretation of results and subsequent training recommendations. The research question is: „How does acrobatic Rock and Roll affect the development of muscle imbalance in the lower limbs in dancers couples?“

**Methods:** The method of qualitative research is used for the work using a case study on five probands. Measurement on the TMG 100 has the task of detecting muscle imbalance caused by training load.

**Results:** Based on the measurements results of the individual report generated by the TMG 100, the results are interpreted and the research question is answered: „Acrobatic Rock and Roll causes muscular imbalances in the lower limbs caused by unilateral strain on couple dancers with difference in the gender of the individuals.“

**Keywords:** acrobatic Rock and Roll, muscular imbalance, muscle, tensiomyography, TMG