

## **Abstrakt:**

**Title:** Nordic walking – muscle response at movement apparatus in pelvis area.

**Purposes:** The aim of the thesis is to compare muscle timing in pelvis area using EMG during free bipedal walk and during the walk with special sticks.

**Methods:** Surface electromyography combined with kinematografy analysis used synchronized video recording.

**Results:** It Managed to prove different muscle timing at nordic walking and at free walk. It was proved lower activity of stabilization muscles at walk with sticks.

**Key words:** Nordic walking, surface electromyography, stabilization muscles, kinematics analysis, bipedal locomotion