

Abstract

The Bachelors thesis „Obesity, osteoarthritis and physical activity” is focused on monitoring and evaluating movement regime, changes in postural stereotypes and musculoskeletal pain in obese adult patients during preparation and in the period following bariatric surgery, or after sensomotoric training without bariatric surgery.

The aim of the work will be the elaboration of the last available literature on the topic. I process the case reports of two patients describing changes in posture and postural stereotypes during a weight reduction with and without exercise regime in the practical part. The evaluation will be based on measuring postural stability using computer posturography, objectification amplitude of movement of the supporting joints by the Moover instrument. Body compartment composition will be analysed by bioimpedance measurement on the Tanita instrument, and subjective perception of pain and quality of life throughout the reduction program will be assessed through standardised questionnaires. (DIBDA-Questionnaire of pain interference with daily activities, Pain Map, Questionnaire of the impact of body weight on quality of life (IWGOL-Lite))

The results from computer posturography didn't show improvement in postural stability. Patient after a significant weight reduction shows a reduction in area of contact foot. Both patients have better range of movement of the supporting joints. Patient after bariatric surgery proves better subjective evaluation of quality of life and pain. The patient lost weight 50 kg after bariatric surgery and has better quality of body compartment composition.