

## **Summary**

**Title:** Kinesiologic analysis of function of selected upper limb muscles after female breast augmentation

**Objectives:** The aim of this research is to analyze the functionality and scope of involvement of the injured muscles due to plastic surgical augmentation procedure at pre-selected physical activities before and after surgery a few months later (specifically, three months - the time the patient left the recovery) using a noninvasive surface electromyography (EMG).

**Methods:** A Case Study measuring method of noninvasive surface electromyography in combination with the method of temporal phase shifts involved in the activation of muscle movement, accompanied by a support method of integrated EMG.

**Results:** There differences have been observed in the timing of individual muscles measured during performing selected testing exercises before and after completion of the augmentation plastic surgery operations. Furthermore, the possibility of the loss of muscle strength has been detected by some measured muscles and this has the potential to take over functions of damaged muscles.

**Key words:** plastic surgery, female breast augmentation, surface electromyography, upper limb muscles, musculus pectoralis major