

## **Bachelor's Thesis Abstract**

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**Thesis Title:** Physiotherapy after surgery for upper limb spastic dystonia in patients after brain damage

### **Abstract**

This bachelor's thesis overviews surgical treatment for upper limb spastic dystonia and subsequent post-operative physiotherapy. The thesis consists of two sections, theoretical and practical.

Theoretical part describes upper motor neuron syndrome and definitions of two relevant symptoms, which are spasticity and spastic dystonia. This section also contains quantitative estimation methods for spasticity and spastic paresis. This is followed by description of surgical procedures classified based on different upper limb segments. Finally, physiotherapeutic techniques recommended after these surgical procedures are described. Practical section consists of description of two case reports, in which the brain injury led to spastic dystonia that was treated by surgery of upper limb. Each case contains past medical history, entrance and exit kinesiological analyses, functional examination of upper limb using modified Frenchay arm test and physiotherapeutic sessions reports. Based on the comparison of the entrance and exit exams the effect of post-operative physiotherapy was assessed.

**Key words:** spastic dystonia, spasticity, upper motor neuron syndrome, dystonia treatment, surgical therapy, hand surgery