

Diploma thesis summarizes recent knowledge of neurophysiology primarily self-perception and body-scheme. The aim is to contribute and enrich the recent theories. The thesis studies different quality of self-perception in healthy people and patients with chronic back pain, especially patients with Failed Back Surgery Syndrome. An experimental comparison between patients with FBSS and control group has been made. The research involved navigation tasks. Probands were blindfolded during the examination in the space cognition laboratory with the Blue Velvet Arena system. Certain differences between patients and control group have been detected. Further studies with larger number of patients are recommended, so the experiment returns more precise results and statistically valuable data.