The Diploma thesis titled "Using biofeedback for patients with non-specific low back pain" in theoretic part gives basic information about motor learning, biofeedback, low back pain and postural stability. In the research part, it deals with influence of postural stability-focused therapy (performed on Nintendo Wii Fit Plus device) on low back pain and postural stability. The work also deals with influence of added feedback on reduction low back pain, postural stability and realizing intrinsic feedback. We demonstrate that this therapy reduced low back pain but has no significant influence on postural stability. We also demonstrate that added feedback has positive effect on persistence of pain and affective part of the Short Form of McGill Pain Questionary, but it does not influence postural stability. On the contrary, absence of added feedback significantly influenced the postural stability. The added feedback does not influence awareness intrinsic feedback.