

This thesis „The interindividual variability in the investigation by Balance Master® System“ resolves the problem of postural stability in the context of age and incidence of external factors as day-time, physical activity or stress in tested individuals. The aim of the work was to summarize knowledge about the postural stability, mechanisms of processing, holding and testing postural stability. The target of the research was to verify if there are any differences in quality of postural stability between the group of healthy young individuals and the group of healthy elderly by Balance Master® measurements, and if the quality of postural stability is affected by the day-time, fatigue and stress. It was investigated 6 tests: Weight Bearing/Squat (WBS), Modified Clinical Test of Sensory Interaction on Balance (mCTSIB), Limits of Stability (LOS), Rhythmic Weight Shift (RWS), Step Up/Over (SUO) a Forward Lunge (FL).