

## **Abstract**

**Title:** Comparison of rhythmic stabilization according to Kabat with the techniques used in practice.

**Objectives:** The main aim of this thesis was to measure and compare the level of muscle activity and the level of cocontraction of Muscle quadratus lumborum sinister, obliquus internus abdominis sinister, rectus abdominis sinister and dexter obliquus externus abdominis, which were exposed to different stabilization techniques - rhythmic stabilization and technique used in practice - technique „pushing“.

**Methods:** This is an experimental study which is analyzed and then assessing the level of cocontraction of antagonists and the degree of muscle strength in two different ways- the technique of PNF and technique pushing. We use a surface electromyography as an objectification method. The sample consisted of 7 probands.

**Results:** It was discovered that left side lying position not enlarged to the level of activity of all muscles required, therefore the muscles involved in PNF diagonals. Prerequisite increased level of activation during rhythmic stabilization technique according to Kabat was confirmed only in m. quadratus lumborum sinister and m. obliquus externus abdominis dexter and the values statistically insignificant. Participation of the rectus abdominis though its dominant and statistically significant results in the technique pushing, we can therefore confirm that the rectus abdominis rhythmic stabilization techniques to participate the reliably, on the contrary, that reliably engage the technique above. Musculus obliquus internus abdominis sinister is more involved in technique above, though its dominant activity was expected during PNF technique.

**Keywords:** electromyography, pelvis, PNF, surface electromyography, proprioceptive neuromuscular facilitation, rhythmic stabilization, stability, stabilization