

## **Abstract**

**Title:** The influence of rounded shoulder posture on the intensity of low back pain.

**Objective:** The objective of this paper is to determine whether there is a connection between low back pain and a forward shoulder posture.

**Methods:** 23 probands divided into two groups according to pre-established criteria participated in this study. The control group consisted of 10 probands without a forward shoulder posture and without low back pain. The second experimental group consisted of 13 probands with a forward shoulder posture and with low back pain lasting at least three months. The experimental group took part in a four-week therapeutic programme aimed at correcting the forward position of the shoulder joints. This programme consisted of therapy used by Dr. Rašev - the application of a hot towel roll and elastic resistance exercises with Thera-Band. The forward shoulder posture was assessed visually and with a digital caliper. The numerical pain rating scale (NRS) was used to determine whether the low back pain changed when the forward shoulder posture was corrected. Muscle activity in the lumbar spine was monitored by surface electromyography.

**Results:** At the end of the four-week treatment programme, all probands reported reduced low back pain on the numerical scale, although the forward position of one shoulder was not corrected in two probands. In these probands, there was also only reduced muscle activity in the upper lumbar spine and not in the lower lumbar spine.

**Keywords:** rounded shoulder postures, low back pain, lumbar spine, electromyography, physiotherapy