

# Feelings, Sensations and Proprioception in Hand Therapy

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**Introduction:** Thumb CMC joint OA is a common diagnosis. Currently there is no evidence available to under if proprioceptive neuromuscular training is an effective intervention for this population

**Purpose of the study:** To establish the effectiveness of a proprioceptive training program as a complementary therapy for patients with thumb CMC joint OA.

**Methods:** Standard conservative thumb CMC joint OA treatments were received by both the control (n=26) and experimental groups (n=26) for a period of 12 weeks. The experimental group received a proprioceptive training program during the same intervention period. Outcome measures included severity of pain with activity according to the numerical rating scale (NRS), QuickDASH, Canadian Occupational Performance Measure (COPM), and proprioception via joint position sense (JPS).

**Results:** Fifty-two females participated in the study. Both the experimental and control group made both clinically and statistically significant changes in the mean VAS and COPM scores over time. Only the experimental group achieved a statistically and clinically significant change in JPS error score over time.

**Discussion:** Experimental group achieved a statistically significant change in JPS over time in concordance with previous investigations. Changes in pain scores differed from prior investigations and the between-group comparison was not statistically significant. Changes in the Quick DASH was similar to previous findings.

**Conclusion:** Proprioceptive training in addition to a traditional rehabilitation program decreased error scores on the joint position sense test.

Keywords: Thumb osteoarthritis; Proprioception; Joint position sense; Thumb pain.