

# **The effect of the Fascial Distortion Model (FDM) on painful restricted shoulder abduction**

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**BACKGROUND:** Painful restriction of shoulder abduction is a large problem in the population. It may diminish the quality of daily life and furthermore lead to constriction in work. The Fascial Distortion Model (FDM) describes a method for diagnosing and treating painful restriction of shoulder abduction.

Up to now no clinical studies have been done to check the efficacy of the FDM on pathologies of the shoulder. The question of this study was: Is the FDM successful in treating painful restriction of shoulder abduction?

**COURSE OF THE STUDY:** 35 participants with painful restriction of shoulder abduction were accepted to the study and assigned randomly to an FDM-group (N=16) or a Control-group (N=17). Both groups were twice examined, measured, treated and measured again with an interval of three to four days. A concluding examination was done fourteen to sixteen days after the last treatment. The measurements were done goniometrical. Both groups were examined according to the method of the FDM. The treatment of the FDM-group was done with a maximum of three FDM-techniques which were determined through FDM-diagnosis in the examination. The treatment of the control-group was done with a routine of three articulation techniques for the shoulder girdle. The FDM-diagnosis had no impact on the choice of the techniques. At the conclusion of the initial study, the patients in the control group had the possibility to be treated likewise with FDM therapy.

**STATISTICAL METHODS:** The main target criteria to determine the impact of both treatments was the grade of abduction measured 14-16 days after the second treatment. The data were checked through a T-test for independent samples for the level  $\alpha = 0.05$ . Furthermore the middle difference between the FDM group and the routine mobilization control group was computed inclusive the associated confidant interval.

**RESULTS:** The amount of shoulder abduction at the relevant time, 14-16 days after the second treatment, was  $168.7^\circ (+12.59)$  in the FDM group and  $123.3^\circ (+34.25)$  in the Control group. The middle Before-After difference of abduction amounted to  $55.0^\circ (+/- 26.30)$  in the FDM group and to  $5.3^\circ (+/- 15.36)$  in the control group (in relation to the initial value).

The proportional change in relation to the initial value amounted to 57.11% (+/- 38.7) in the FDM group and to 5.54% (+/- 12.5) in the control group.

The accomplished T-tests showed a statistically significant difference for all three parameters.

## **CONCLUSION:**

The results indicate that FDM treatment has a significant effect on the improvement of painful shoulder abduction. Nevertheless, the results have to be checked through further studies.

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