

The Effectiveness of Ligament Influenced Fascial Technique (LIFT) on Hamstring Flexibility

Andrea Betts, MOTS¹, Dale Cannavan, Ph.D, CSCS*D¹,
Kelly Clancy, OTR/L, CHT, SMS², JoAnn Kovaly, LMP, PMA-CPT²

¹Department of Health & Human Performance, Seattle Pacific University.

²Seattle Center for Structural Medicine, Seattle, WA 98107

sonka@spu.edu, cannavand@spu.edu, kellyclancy@balanceot.com, joann@liftmethod.com

BACKGROUND: Ligament Influenced Fascial Technique (LIFT) is a new manual therapy modality. The aim of LIFT is to bring about an increased range of motion (ROM) through gentle manipulation of ligaments; however, there is little scientific data demonstrating its effectiveness. Static stretching (SS) is a common therapeutic modality used by clinicians to improve ROM, however it is not always time effective. Therefore, the purpose of this study was to compare the effectiveness of LIFT to SS on improving hamstring ROM.

METHODS: This study was approved by the institutional review board of Seattle Pacific University and conformed to the Declaration of Helsinki.

Data were collected on a mixed cohort of 28 college students (23 ± 3 yr) in a randomly assigned blind controlled study. After a five-minute cycle warm-up, ROM was assessed through myofascial length testing (MFLT). An experienced clinician assessed hamstring flexibility via a straight leg raise. The end ROM was determined and pictures were taken. Retro-reflective markers permitted identification of specific landmarks to determine changes in joint angles and ROM; data were analyzed using Kinovea software. Participants received one of three specific interventions: 1) LIFT procedure: The hamstring muscle group was influenced by tractioning the patellar and calcaneofibular ligaments whilst low-level isometric contractions of the quadriceps were performed (3 x 5s contractions). 2) SS: A standard hamstring stretching routine (3 x 30 s stretches). 3) The control group: Rested for the same duration as the SS group. Immediately after the treatment, MFLT was reassessed. A repeated measures ANOVA was used to compare the mean changes in ROM between groups. Pairwise comparisons were used for further analysis. All statistical tests were performed in SPSS with alpha set at 0.05.

RESULTS: There was no statistical difference between static stretching and the control group ($p = 0.25$). Conversely there were significant differences between LIFT and control ($p < 0.01$) and LIFT and SS ($p = 0.01$), with a 23° improvement in ROM for the LIFT group.

CONCLUSIONS: LIFT induced a significantly greater increase in ROM of the hamstring compared to static stretching. LIFT is a non-invasive short duration therapeutic modality that can be easily applied to induce pain free increases in ROM in a time efficient manner.