**The Effects of Instrument Assisted Soft Tissue Mobilization on Vertical Jump**

**Presenter:** **David Novello (Sports Medicine)**

**Faculty Mentor:  Dr. Alison Gardiner-Shires (Sports Medicine)** 

Context: The benefits of Instrument Assisted Soft Tissue Mobilization (IASTM) have been substantiated for improving joint range of motion in healthy and injured patients.  However, we do not yet know if IASTM can improve physical performance outcomes such as jump height.  Objective: To determine the effects of IATSM on Vertical Jump Height.  Design: Single Blinded Randomized Controlled Trial.  Setting: Research laboratory.  Participants: Twenty-one (13 females, 8 males) healthy, physically active, college-aged students (range= 19-23 years old) at a single University were randomized into treatment (n=9) and control (n=12) groups.  Interventions: After a 5-minute bike warm-up, the IASTM group received a 2-minute treatment applied to the left and right quadriceps, hamstrings, and gastrocnemius muscles (12 minutes total).  The control group rested on a treatment table for 12 minutes.  Main Outcome Measures: Pre-and post-vertical jump height (cm) were assessed on two non-consecutive days (48 hours between each day), followed by a final assessment on day 3 (48 hours after second intervention).  Results: No significant differences were found between the treatment and control group at any time point (p > .05).  Although not significant, both groups demonstrated a slight decrease in average vertical jump height on day 1 (control= 2.73 cm; IASTM= 0.98 cm) and day 2 (control= 1.1 cm; IASTM= 1.22 cm).  Conclusions: The results of this study suggest that IASTM cannot yet be deemed an effective method to improve vertical jump in healthy, physically active subjects.  Further research should be conducted to refine procedures and optimize treatment parameters.  .