

VIBETECH™ Pilot Clinical Data

Effects of a single VibeTech One treatment on range of motion

Study involving healthy adults receiving a single VIBETECH™ treatment (n=21)

A single, 10-minute VIBETECH ONE™ treatment session immediately and significantly improved sit and reach flexibility (Figure 1), indicating that hamstring and lower back range of motion was improved. Limited range of motion can be a hindrance to effective physical therapy, especially for older adults and patients with muscle contracture. VIBETECH™ may serve as a simple and effective warm-up tool to improve flexibility before engaging in other physical therapy modalities. Therefore, VIBETECH™ may help individuals with limited flexibility participate in therapy that could be difficult or painful without warm-up. Additionally, the VibeTech treatment is simpler and faster than conventional warm-up exercises.

Protocol

- 80 lb load applied to the legs
- Vibration stimulus: 0.05-2.00 g x 30 Hz
- Treatment: one 10-minute session

Assessments

- Sit and Reach Test: Participants sat on the floor with their legs extended. They were asked to reach as far forward as they comfortably could until discomfort ensued, while keeping their legs straight with their knees locked. The maximum distance reached by their fingertips was recorded.
- The Sit and Reach Test was performed immediately before and after the VIBETECH™ treatment.

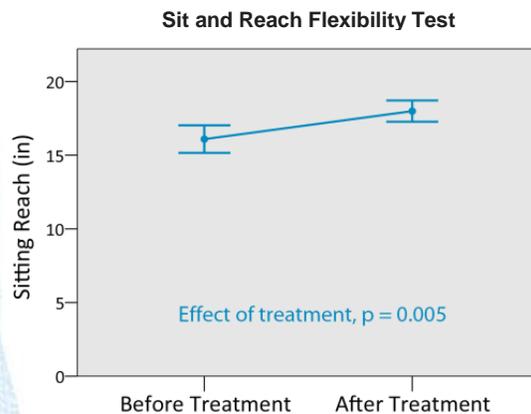


Figure 1. Changes in sit-and-reach flexibility before and after a single VIBETECH™ treatment (data represent mean \pm standard error). Flexibility was significantly improved by the treatment session, indicating that a single VIBETECH™ session can immediately improve hamstring and lower back range of motion.

References

1. Tinetti, M.E. et al., Risk factors for falls among elderly persons living in the community. The New England journal of medicine 319, 1701-7 (1988).
2. Guralnik, J.M. et al. A short physical performance battery assessing lower extremity function: association with self-reported disability and prediction of mortality and nursing home admission. Journal of Gerontology 49, M85-M94 (1994).
3. Guralnik, J.M. et al., Lower-extremity function in persons over the age of 70 years as a predictor of subsequent disability. The New England Journal of Medicine 332, 556-61 (1995).
4. Penninx, B.W.J.H. et al. Lower extremity performance in nondisabled older persons as a predictor of subsequent hospitalization. The Journals of Gerontology Series A: Biological Sciences and Medical Sciences 55, M691-M697 (2000).