Which has the greater affect on hamstring flexibility – compressions or stretching?

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Introduction

- Compression massage is thought to increase flexibility but there seems to be no research focusing specifically on this topic to date.
- An alternative method of enhancing flexibility is static stretching; stretching literature has tended to focus on performance, recognising there does seem to be evidence to support the use of static stretching (Behm and Chaouachi, 2011)

Aim

- To compare the effect of static stretching against the effect of compressions on hamstring.

Method

- Same subject crossover design using healthy subjects (n = 16).
- The outcome measure used was the sit and reach test. See fig. 1
- The compression condition was applied to the musculotendinous junction of the hamstrings. See fig. 2
- The static stretching condition was teaching the participant a “hurdlers stretch”. See fig 3

Results

- Mean difference between pre and post test conditions for static stretching was 1.28cm (S.D.±1.21), and for compression massage was 2.19cm (S. D ±1.66). (p = 0.016)

Conclusion

- It seems that compression massage had a greater affect on hamstring flexibility rather than a static stretch.
- The difference between the two conditions was statistically significant and could also be considered clinically significant.
- If resources are available, compression massage could be considered to be the intervention of choice when compared with static stretching.

References

Behm and Chaouachi, 2011. A review of the acute effects of static and dynamic stretching on performance. *European Journal of Applied Physiology 111 (11): 2633 - 2651*

Figure 1: Sit and Reach Test

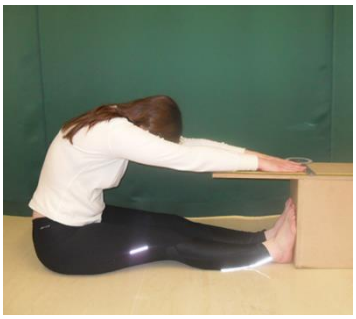

Figure 2: Compression to Hamstring

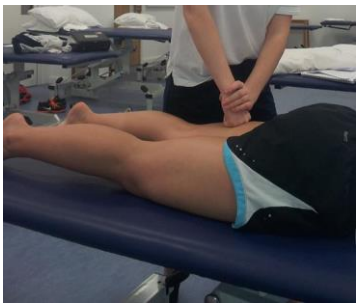

Figure 3: Hamstring Static Stretch