ABSTRACT

Background: Self-massage is a ubiquitous intervention similar to massage, but performed by the recipient him- or herself rather than by a therapist, most often using a tool (e.g., foam roller, roller massager). Self-massage has been found to have a wide range of effects. It is particularly known for increasing flexibility acutely, although not always. The variability of the results in previous studies may potentially be a function of the tool used. Recent findings also suggest that self-massage exerts global effects. Therefore, increased flexibility should be expected in the areas adjacent to the ones treated.

Purpose: To investigate the acute effects of foam rolling and rolling massage of anterior thigh on hip range-of-motion (ROM) – i.e., hip extension and hip flexion – in trained men.

Methods: Eighteen recreationally active, resistance trained males visited the lab on two occasions over a 4-day period separated by at least a day. Each session included two baseline ROM measures of passive hip flexion and extension taken in a randomized fashion. Recording of baseline measures was followed by the intervention of the day, which was either foam rolling or rolling massage of the anterior thigh as per randomization. Immediately post intervention, passive hip flexion and hip extension ROM were reassessed. In order to assess the time course of improvements in ROM, hip flexion and hip extension ROM were reevaluated at 10, 20, and 30 minutes post-intervention.

Results: Hip flexion and hip extension ROM increased immediately following both interventions (foam rolling or roller massager) and remained increased for 30 minutes post intervention. Foam rolling was statistically superior in improving hip flexion and hip extension ROM immediately post intervention. However, immediately post-intervention was the only time point that measurements exceeded the minimum detectable change for both interventions.

Conclusion: Both foam rolling and rolling massage appear to be effective interventions for improving hip flexion and extension ROM when applied to the anterior thigh, but the observed effects are transient in nature.

Level of evidence: 2b

Key words: Flexibility, foam rolling, rolling massage, self-manual therapy, self-myofascial release

ORIGINAL RESEARCH

ACUTE EFFECTS OF DIFFERENT ANTERIOR THIGH SELF-MASSAGE ON HIP RANGE-OF-MOTION IN TRAINED MEN

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The authors report no conflicts of interest

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