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## Effect of Tissue Flossing on Grip Strength in Collegiate Baseball Players

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**Context:** Tissue flossing bands are a relatively new therapeutic modality that has increased in popularity in recent years. While there is evidence to suggest that tissue flossing bands can decrease pain and increase perceived range of motion, there has been little research conducted to determine the effects of tissue flossing on muscular strength and performance. Thus, the aim of this study was to assess the effects of a single tissue flossing treatment on grip strength among healthy collegiate baseball players. **Methods:** Twenty apparently healthy collegiate baseball players ( $21.4 \pm 1.54$  years,  $181.9 \pm 3.56$  cm,  $84.5 \pm 8.56$  kg) were recruited and consented to participate in this study. The tissue flossing treatment was performed from the wrist to the elbow on the participant's throwing arm. Grip strength was then measured three times using a hand grip dynamometer both before and after treatment. The patient's non-throwing hand was tested before and after a one minute rest period to serve as a control. Data analysis was performed using a paired samples t-test to determine statistical significance of differences in maximum grip strength before and after intervention for both the treatment and control arms, and a one sample t-test was performed to determine the statistical significance of differences in maximum grip strength between groups. All statistical analyses were performed using SPSS Statistics Software (IBM, Armonk, NY). The level of significance was set at  $p < 0.05$ . **Results:** Following one round of tissue flossing treatment, the participants experienced a 4.3% decrease in grip strength ( $111.69 \pm 16.95$  to

$106.89 \pm 16.19$ ,  $p = 0.001$ ). However, participants did not experience a significant decrease in grip strength compared to the control arm ( $4.90 \pm 11.12$  to  $1.93 \pm 12.93$ ,  $p = 0.143$ ). None of the participants reported any adverse effects as a result of the tissue flossing band treatment other than mild soreness and redness of the skin that resolved within 10-15 minutes. **Conclusions:** These findings demonstrated that in healthy young baseball players, tissue flossing bands did not significantly decrease grip strength when compared to a healthy control. Thus, it would be reasonable to perform a tissue flossing band treatment prior to performing physical activity that involved gripping. Clinicians must use discretion when choosing a treatment option if a patient will be performing physical activity afterwards.