



## XXXV SALÃO de INICIAÇÃO CIENTÍFICA

6 a 10 de novembro

<b>Evento</b>	Salão UFRGS 2023: SIC - XXXV SALÃO DE INICIAÇÃO CIENTÍFICA DA UFRGS
<b>Ano</b>	2023
<b>Local</b>	Campus Centro - UFRGS
<b>Título</b>	Acute effects of different foam rolling protocols on the Achilles tendon morphological properties and jump height in healthy individuals: preliminary results
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Justification: Foam rolling (FR) is a self-massage technique widely used in rehabilitation and physical training to improve or recover performance in sports activities, such as those involving jumping. Changes in tendon morphological properties (e.g. cross sectional area [CSA] and tendon length [TL]) may justify changes in vertical jump height. However, the possible FR effects on Achilles tendon (AT) structure and jumping performance are not clear. Objective: to verify different FR protocol's effects on AT CSA and TL and jump height in healthy individuals. Methodology: 20 subjects of both sexes ( $26\pm 5.2$  years;  $72.1\pm 15.9$  kg;  $169.6\pm 10.8$  cm) participated in this crossover study and were randomized into three conditions: FR90 (3x30s), FR180 (3x60s) and control (CTR), with a one-week wash-out interval. The FR was performed on the plantar flexors, emphasizing the AT region. The AT morphological properties were evaluated by ultrasonography. The maximum height of the unilateral jump was evaluated using two-dimensional kinematics. Evaluations were performed before and after conditions. Results: Conditions were similar for AT structure (CSA:  $p = 0.205$ ; TL:  $p = 0.686$ ) and jump height ( $p = 0.998$ ). In addition, when the moments were compared, no differences were found (CSA:  $p = 0.265$ ; TL:  $p = 0.220$ ; jump height:  $p = 0.416$ ). In conclusion, different FR application protocols do not alter the morphological properties of the Achilles tendon and jump height.