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表題	高強度ストレッチングと低強度ストレッチングが他動的性質に及ぼす影響の比較
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英文	
Title	Comparison between high-and low-intensity static stretching training on active and passive properties of plantar flexors
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Abstract	The purpose of this study was to compare two static stretching (SS) training programs at high-intensity (HI-SS) and low-intensity (LI-SS) on passive and active properties of the plantar flexor muscles. Forty healthy young men were randomly allocated into three groups: HI-SS intervention group (n = 14), LI-SS intervention group (n = 13), and non-intervention control group (n = 13). An 11-point numerical scale (0-10; none to very painful stretching) was used to determine SS intensity. HI-SS and LI-SS stretched at 6-7 and 0-1 intensities, respectively, both in 3 sets of 60 s, $3\times$ /week, for 4 weeks. Dorsiflexion range of motion (ROM), gastrocnemius muscle stiffness, muscle strength, drop jump height, and muscle architecture were assessed before and after SS training program. The HI-SS group improved more than LI-SS in ROM (40 vs. 15%) and decreased muscle stiffness (-57 vs24%), while no significant change was observed for muscle strength, drop jump height, and muscle architecture in both groups. The control group presented no significant change in any variable. Performing HI-SS is more effective than LI-SS for increasing ROM and decreasing muscle stiffness of plantar flexor muscles following a 4-week training period in young men. However, SS may not increase muscle strength or hypertrophy, regardless of the stretching discomfort intensity.
keyword	ankle plantar flexors; extended-field-of-view; fascicle length; muscle thickness; pennation angle; resistance training; stretch training.

※本データの英文表記は実際の論文上の表記とは異なります。