研究業績 英文表記

和文	
表題	アイシングとストレッチングが筋硬度に及ぼす影響の検討
著者名	中村雅俊, 平林怜, 大箭周平, 青木孝史, 鈴木大地, 菊元孝則, 伊藤渉, 中村絵美, 高林知也, 江玉睦明
所属	新潟医療福祉大学
英文	
Title	Effect of static stretching with superficial cooling on muscle stiffness
Author	Nakamura M, Hirabayashi R, Ohya S, Aoki T, Suzuki D, Shimamoto M, Kikumoto T, Ito W, Nakamura E, Takabayashi T, Edama M.
Affiliation	Institute for Human Movement and Medical Sciences, Niigata University of Health and Welfare
Abstract	This study aimed to clarify the acute effect of static stretching (SS) with superficial cooling on dorsiflexion range of motion (DF ROM) and muscle stiffness. Sixteen healthy males participated in the cooling condition and a control condition in a random order. The DF ROM and the shear elastic modulus of medial gastrocnemius (MG) in the dominant leg were measured during passive dorsiflexion. All measurements were performed prior to (PRE) and immediately after 20 min of cooling or rested for 20 min (POST), followed by 2 min SS (POST SS). In cooling condition, DF ROM at POST and POST SS were significantly higher than that at PRE and DF ROM at POST SS was significantly higher than that at PRE and the shear elastic modulus at POST was significantly higher than that at PRE and the shear elastic modulus at POST SS was significantly lower than those at PRE and POST. However, there were no significant differences in the percentage changes between PRE and POST SS between the cooling and control conditions. Our results showed that effects of SS with superficial cooling on increases in ROM and decrease in muscle stiffness were no more beneficial than those of SS alone.
keyword	range of motion; shear elastic modulus; stretch tolerance; superficial cooling