

Acute Effects of Neural Mobilization and Static Hamstring Stretching on Multi-joint Flexibility in a Group of Young Adults

Ben Curtis¹, Tim Retchford², Kinda Khalaf³ and Herbert F. Jelinek^{4,5*}

¹*The Sports Medicine Centre, Turner, ACT, Australia*

²*School of Community Health, Charles Sturt University, Albury, NSW, Australia*

³*Department of Biomedical Engineering, Khalifa University, Abu Dhabi, UAE*

⁴*Department of Cardiology, Australian School of Advanced Medicine, Macquarie University, Sydney*

⁵*School of Community Health, Charles Sturt University, Albury, NSW, Australia*

***Corresponding author:** Herbert Jelinek, School of Community Health, Charles Sturt University, Thurgoona Drive, Albury, NSW 2640, Australia, Tel: +61 2 60519219; E-mail: hjelinek@csu.edu.au

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Abstract

Neural tension has been proposed to be a factor influencing multi-joint movements such as sprinting, kicking and bending to pick up an object. Neural mobilizations have been demonstrated to increase range of motion in one joint, however the effect on flexibility across multiple joints has xas,¾

T e

		Percentiles		
		25 th	Median	75 th
Neural mobilization	Pre-test	-127.50 [*]	5	96.25
	Post-test	-91.25	35.00 ^a	121.25
	Change	10	22.5	41.25
Static stretch	Pre-test	-18.75	45	90
	Post-test	-3.75	70.00 ^a	111.25
	Change	5	25	41.25

^{*} measures in millimetres (mm). ^a indicates significantly different result compared to pre-test ROM (p<0.01).S

Table 2 Effect of interventions on toe touch distance.

		Percentiles		
		25 th	Median	75 th
Neural mobilization	Pre-test	12.875 [°]	25	31.5
	Post-test	12.375	18.25 ^a	24.75
	Change	0.125	3	7.125
Static stretch	Pre-test	12	17.25	24.5
	Post-test	12.25	15	23
	Change	-1.625	0.75	4.125

[°] - degrees from full extension; ^a indicates significantly different result compared to pre-test ROM (p<0.01).

Table 3 Effect of interventions on slump test.

of interventions on passive knee M

similar neural mobilization technique [17]. It is worth noting that despite using a greater total treatment time, the neural mobilization intervention used in the current study did not result in greater changes in the slump test than that observed by [17].

This suggests that there is little value in increasing the repetitions of tensioner style neural mobilisations past the amount used by [17], as more repetitions did not appear to increase the effect following a single session of neural mobilisation.

The results of this study support the expectation that the static stretch intervention would have no effect on neural mobility. Static

