

UNIVERSITI TEKNOLOGI MARA

**THE EFFECTIVENESS OF JOSTLING MASSAGE
TECHNIQUE ON MUSCLE STIFFNESS AND
ATHLETE PERFORMANCES TOWARDS CYCLING
ATHLETE**

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ABSTRACT

The purpose of this study is to investigate the effectiveness of jostling technique massage on muscle stiffness and athlete performances towards cyclist. A total of eight subjects (N=8) from Uitm Negeri Sembilan were selected through purposive sampling. The study compared the differences between muscle stiffness with and without massage. Sample Paired T-Test was used as this study included pre- and post-test using the group of subjects. During pre-test, all subjects performed plantar flexion test using goniometer without any application of jostling massage. After a minimum intervention of 24 hours, they performed the same test with the application of jostling massage. Based on the Sample Paired T-Test result, there were significant difference between muscle stiffness without jostling massage and muscle stiffness with jostling massage ($p = 0.036$) and ($p=0.003$) for both calves. The overall result also indicated that muscle stiffness without jostling massage for right calf (M = 59.00 SD = 1.792) was inferior to muscle stiffness with jostling massage for the right calf (M = 60.68, SD = 1.462) while for the left leg the muscle stiffness without jostling massage left calf (M = 58.31, SD = 1.556) was inferior to muscle stiffness with jostling massage for the left calf (M = 59.87, SD = 1.663). To conclude, this finding suggests jostling massage technique does have affect muscle stiffness and athlete performance toward cyclist athlete and it does give positive mental effects for them to perform better.

KEYWORDS: Cycling, Sport Massage, Jostling, Performance, Muscle