

## ***Effects of vibration and electrical stimulation on maximal voluntary contraction***

### **abstract**

*This research studies the effects of vibration stimulation on agonist muscle and electrical nerve stimulation of antagonist muscle used separately and simultaneously on the MVC (Maxial Voluntary Contraction). 45 healthy subjects participated in the study, who they were divided into three groups. MVC obtained from lateral gastrocnemius muscle.*

*For the first group, the vibration (100 Hz, 0.8 mm) applied to the Achile tendon about 15 minutes. For the second group, electrical stimulation applied to the proneal nerve (also about 15 minutes) and for the third group, vibration and electrical stimulation applied simultaneously to the Achile tendon and proneal nerve respectively.*

*The results of this study showed that MVC decreased after agonist vibration ( $p < 0.005$ ) while the results after electrical stimulation of antagonist muscle and after dual stimulation didn't change significantly.*

*We concluded that the vibration of agonist muscle decrease MVC more than the other two modalities.*

**Sarfaraz Z. (M.Sc.)**

Instructor of welfare &  
Rehabilitation university

**key words:** Vibration Stimulation / Electrical Stimulation / Maximal Voluntary contraction.