

## **Electrical Muscle Strengthening and Electromyographical Analysis**

### **abstract**

*A common form of therapy in physicaltherapy is the strengthening of muscles. As regards the probability of increasing muscular strength by electrical stimulation, we have tested the effect of that on muscle strength and endurance. 34 healthy male students of rehabilitation sciences college (29-31 old) were subjected to two weeks of interferential current stimulation program, consisting of 7 session per week, each of 15 minutes duration.*

*The stimulation was a 40-60 Hz beat with 25 seconds on and 35 seconds rest time . We were tested all of subjects before and after the program.*

*Assessment parameters were : 1)Maximum circumference of right arm at rest (cm) 2)Max. circumference at max. isometric contraction 3)Max. time (sec.) that he can hold a constant weight. 4)Integral of interference pattern at Max. contraction ( $\mu$ v.s) 5)Amplitude of the M.responce (mAmp) 6)Duration of the M. responce (ms.) T-Pair test employed to data processing, confirme significant changes on 1)rest arm circumference 2)contracted arm circumference 3)Muscle Endurance 4)IEMG 5)M. response Dur. In conclusion we can develop muscle strength and endurance by specific program mentioned above.*

**Key words:** Electrical Stimulation / Muscle Strength & Endurance / Electromyography / Interferential current

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