

## **Electrovibrostimulation applied to Improve Muscle Strength**

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Former studies showed the effectiveness of electrovibrostimulation on the functional condition of muscles : increase of the strength in the active insufficiency zone and increase of the elasticity in the passive insufficiency zone, consequently improving joint strength and mobility. Such effects may also be helpful to improve muscle strength during post-operative rehabilitation. In the present study the effects of electrovibrostimulation training were compared with classical powertraining, in a group of 18-24 years old healthy sportsmen. Twenty-six subjects were divided randomly into 3 groups: an electrovibrostimulation group, a placebo group, and a reference group which continued its usual training. The study design was approved by the Committee for Medical Ethics of the University of Hasselt, Belgium.

After four weeks of electrovibrostimulation, applied twice a week, there is a significant increase of isometric strength in the electrovibrostimulation group. The isometric strength is not significantly increased in the placebo group and the reference group. In the average values of flexibility in the three groups there is no significant modification. As for the explosive strength, a significant increase is noticed in the electrovibrostimulation group. The explosive strength is not significantly increased in the placebo group and in the reference group.

### **REFERENCE**

*Zinkovsky A.V., Zoubova I.A., Schmidt K.P., Van Zwieten K.J. (1998) Training of the skeletal-muscle apparatus of sportsmen through electrovibrostimulation. Tijdschrift voor Fysische Therapie, 4, 9-11.*