Effects of an Electrostimulation Training Program on Strength, Jumping, and Kicking Capacities in Soccer Players

In this French study, a Compex Energy device was used to investigate the effect of a 5-week electrostimulation (EMS) training program on muscular strength (Quadriceps), kicking velocity, sprint, and vertical jump performance in soccer players.

• 20 male soccer players were randomly divided into two training groups: one group (EMS group) received electrostimulation on the quadriceps muscles during 5 weeks (3 sessions of 12 minutes per week) and soccer training, the other group (control group) only had the soccer training.

• On the Compex device the ‘Strength’ program was selected at level 5.

• The athletes were tested after 3 and 5 weeks training and at both assessments, they showed significant improvements in Quadriceps muscle strength parameters as well as in ball speed performance, while these improvements were not seen in the control group.

The authors recommend the use of EMS to complement traditional training for soccer, as it appears to be a viable means for improving force and specific soccer tasks. It can also infuse variability into the training program, which might enhance the motivation of some players. Furthermore, the authors also recommend its use for injured athletes to attenuate or eliminate detraining effects.