

Značenje optimalnog impulza elektromišićne stimulacije u fizioterapiji - iz teorije u praksu

IMPORTANCE OF OPTIMAL IMPULZ OF ELECTRO MUSCLE STIMULATION I PHYSIOTHERAPY – FROM THEORY TO PRACTICE

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ABSTRACT:

Electro Muscle Stimulation is widely used in physiotherapy, but there are still many »white spots« in understanding and using the right impulses, right intensities and right frequencies. Especially when it comes to intensities, different impulses designs/forms allow or do not allow activating enough muscle fibres to reach a proper spacial recruitment for reaching therapeutical goals. An Optimal impulse has to respect physiological facts of muscle contraction on one hand, and to be comfortable for the patient, in order to activate enough motoneurons in treated muscle. Lopicque rule and corresponding demands for the most appropriate impulse design, are leading to a rectangular, biphasic, fully compensated impulse. Due to changes in skin resistance, additional electric demand has to be respected: constant current generator. When all above mentioned demands are respected, such an electro muscle stimulation enables physiotherapist to reach therapy goals in the most effective and safe way. Aditionally, knowledge about the physiological responds of slow and fast twitch fibres to an electrical impulse, makes whole procedures and decissions for the types of electro muscle stimulation for specific treatment purpose logic and easy; this is what physiotherapist needs in daily practice.

KEY WORDS:

Optimal impulse, electro muscle stimulation, physiological respond of muscle fibres, therapy goals.
