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## The effect of myofascial trigger points treatment on muscle elasticity, strength and function

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**Introduction:** The appearance of Myofascial Trigger Points (MTrPs) on human body can cause variety of changes, such as inflexibility, loss of strength and dysfunction of the intramuscular mobility. MTrPs are separated in active and latent MTrPs and they can be created by many direct and indirect causes. Therefore, each MTrPs category creates specific symptomatology and it can affect in different ways the daily life of the human body. Thereby MTrPs can be treated with different interventions, which namely present different action mechanism but all of them have similar results.

**Purpose:** The purpose of the review is to illustrate through the contemporary arthrography the effect of the different ways of treating MTrPs and whether the treatment of the points affects the elasticity, strength and function of the muscles.

**Method:** The review was primarily based on clinical trials or randomized clinical trials that were conducted over the last five years to validate existing knowledge. For the computer search, online databases of PubMed and Google Scholar were used to retrieve articles. Studies that used children, elderly and animals were excluded.

**Results:** Dry Needling seems to reduce the level of pain and hypersensitivity. Moreover, the effects of this treatment over the short term appear to be long-term. Shockwave therapy has significant results (1500 pulse, 2 times per week), may help reduce MTrPs and in the long run can reduce pain and increase the range of motion. Therapeutic ultrasound (3 Hz, 0.132 w/cm2, 4 h) can be applied at local MTrPs with successful pain reduction, but this success seems to be as effective as placebo treatment. Ischemic pressure reduces local pain levels while increasing the range of motion of the involved joints. It is important to note that the effects of ischemic pressure are not only short-term; however, it has long-term results as well. The Ergon-IASTM technique of peritoneal release seems to be an effective tool for pain management and treatment of MTrPs, because after their application they appear to reduce pain levels and increase the range of motion. The same results appear to be with the application of a roller (Foam Roller).

**Conclusion:** Several ways of managing MTrPs have emerged from time to time, However, through contemporary articles; the most effective tools are Dry Needling, shockwave, Ischemic Pressure, ERGON and Foam Roller. More studies of high methodological quality are needed in the future to examine the most effective form of treatment.

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