



## Xcel Dry Needling Pamphlet

**Dry needling** is the use of a solid needle for the treatment of soft tissue and joint pain, sometimes also known as intramuscular stimulation. Dry needling contrasts with the use of a hollow hypodermic needle to inject substances such as saline solution to the same point. Such use of a solid needle has been found to be as effective as injection of substances in such cases as relief of pain in muscles and connective tissue. Analgesia produced by needling a pain spot has been called the *needle effect*. Acupuncture and dry needling techniques may be similar, but their rationale and use in treatment are quite different.

### Technique

In the treatment of trigger points for persons with myofascial pain syndrome, dry needling is an invasive procedure in which a needle, often an acupuncture needle, is inserted into the skin and muscle directly at a myofascial trigger point. A myofascial trigger point consists of multiple contraction knots, which are related to the production and maintenance of the pain cycle. Dry needling for treating trigger points was first introduced by Czech physician Karel Lewit in 1979. Lewit had noticed that the success of injections into trigger points in relieving pain was apparently unconnected to the analgesic used. Proper dry needling of a myofascial trigger point will elicit a local twitch response (LTR), which is an involuntary spinal cord reflex in which the muscle fibers in the taut band of muscle contract. The LTR indicates the proper placement of the needle in a trigger point. Dry needling that elicits LTRs improves treatment outcomes, and may work by activating endogenous opioids. Inserting the needle can itself cause considerable pain. No study to date has reported the reliability of trigger point diagnosis and physical diagnosis cannot be recommended as a reliable test for the diagnosis of trigger points. Cha Gunn introduced a type of dry needling called intramuscular stimulation in the 1980s that moved away from using trigger points. Baldry developed a version called superficial dry needling in 2005, in which the needle is inserted about 5-10 mm into the tissue above the trigger point.

### Efficacy

A systematic review concluded that dry needling for the treatment of myofascial pain syndrome in the lower back appeared to be a useful addition to standard therapies, but that clear recommendations could not be made because the published studies are small and of low quality. A 2007 meta-analysis examining dry needling of myofascial trigger points concluded that the effect of needling was not significantly different to that of placebo controls, though the trend in the results could be compatible with a treatment effect. One study (Lorenzo et al. 2004) did show a short-term reduction in shoulder pain in stroke patients who received needling with standard rehabilitation compared to those who received standard care alone, but the study was open-label and measurement timings differed, limiting the use of the study. Again the small sample size and poor quality of studies was highlighted.

### Practice

Dry needling is practiced by physical therapist in many countries, including South Africa, the Netherlands, Spain, Switzerland, Canada, Ireland, the United Kingdom and New Zealand. In the United States physical therapists in several states including Virginia, Maryland, Ohio, Colorado, Georgia, New Mexico, and Kentucky perform the technique. Physical therapists are prohibited from penetrating the skin or specifically from practicing dry needling in Hawaii, Tennessee, New York, North Carolina, and Florida, though many states have no regulation on dry needling. Acupuncturists have argued that dry needling by physical therapists is infringing on their practice, but physical therapists argue that they are not practicing acupuncture when dry needling. Whether dry needling is considered to be acupuncture depends on the definition of acupuncture, and opinions vary on whether trigger points correspond to acupuncture points or meridians.

## Dry Needling Resources

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