

# Invasive techniques in physical therapy: A literature review

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Rev Fisioter Invasiva 2019;2:125.

## Abstract

**Background** Invasive techniques in physical therapy is a term used to refer to a group of techniques in which the physical agent used for the treatment of different pathologies crosses the skin barrier. The aim of this study was to examine the scientific evidence on the invasive techniques that are most used in physical therapy, by reviewing the literature available on this subject.

**Material and Methods** A literature search was performed on the EBSCOhost, PubMed, Web of Science (WOS), PEDro and TRIP databases. The selected studies were: randomized clinical trials (RCTs), systematic reviews of RCTs and meta-analyses of RCTs. Studies had to be published between 2008 and 2018, conducted on men and women over the age of 18 and in English or Spanish.

**Results** In total, 64 studies were retrieved, which were read and scrutinized to confirm whether they were relevant for the present study. Finally, after the various screening processes, a sample of 21 articles was obtained. The level of evidence was analyzed as well as the level of recommendation according to the Oxford scale, together with an impact index according to the Journal Citation Reports (JCR). Seventeen of the studies were meta-analyses and systematic reviews of RCTs, and one systematic review of cohort studies was included.

**Conclusion** After the analysis of the selected articles and the conclusions, invasive techniques in physical therapy are confirmed to be relatively safe and effective for different pathologies, especially when performed in depth and when the local twitch response (LTR) is sought.

## Keywords

- dry needling
- acupuncture
- percutaneous needle electrolysis
- myofascial trigger points
- myofascial pain syndrome
- infiltration
- needles
- effectiveness
- physical therapy
- safety