

## Piercing the Veil on Dry Needling

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If you were to be so bold as to pose the question, "What is a subluxation?", you know 50 different people would likely give you 50 different answers. Even when institutions make the attempt at some consensus statement, it ends up a fiat-by-word-cloud like: "A subluxation is a complex of functional and/or structural and/or pathological articular changes that compromise neural integrity and may influence organ system function and general health." (Association of Chiropractic Colleges).

Dry needling (DN) has been mired in similar ambiguity as the practice is becoming more and more mainstream, specifically in chiropractic. Recent stabs at answering the question, "What is dry needling?" has been met with a breadth of deference by the ACA, APTA and numerous state PT and DC boards; all with varying latitude as to what tissues are included and for what purpose.<sup>1</sup> Of course, these statements are as consequential as they are non-definitive.

### What It Is and Isn't

As is the case with defining the "adjustment," a number of factors and a thicket of variables make defining the very concept an arduous task. Like the adjustment, the basic components involved in such a definition are much the same: *tools, technique and intent*. There are the tools such as hands, instruments or blocks. We have the technique like an HVLA, or something slower as with SOT blocking or CBP traction. We also have various intentions with each adjustment including restoring joint mobility, restoring alignment, normalizing muscle tone, or affecting the autonomic nervous system.

With DN, the tools are quite simply thin monofilament needles, as opposed to hollow-bore needles, used to deliver agents into the body or remove tissue samples. These needles come in various gauges and lengths, and are often indistinguishable from acupuncture needles. However, DN is not acupuncture, as the intent and techniques used are completely different.

### Techniques and Intent

The technique could include placing a needle in the desired tissue for just a moment before removing it, or simply leaving it in place for a determined length of time. "Pistoning" is another technique whereby the needle is repeatedly inserted, partially withdrawn and inserted again. Needle "twisting" is another technique commonly used.

With each technique comes a different intent. The treatment of a TrP could be accomplished by simply inserting the needle into the muscle and looking for a "local twitch response" (LTR) or reproduction of a referral pattern and then removing the needle. A single or multiple needles may be left in place to create a sustained neurological response in the case of "peri-neural" needling.<sup>2</sup>

"Pistoning" by quickly and repeatedly changing needle depth to cause tissue damage, the subsequent

release of cytokines and the desired affect of increasing local circulation, as well as the aggregation of satellite cells, is a common technique in DN.<sup>3</sup> Stippling the periosteum to stimulate fibroblast differentiation, not unlike the desired result of platelet-rich plasma (PRP) interventions, can be used to heal a tendon or ligament. Recent evidence suggests this technique may also reduce OA pain due to the effect this technique has on pain gaiting and local circulation demonstrated on T2 weighted MRI.<sup>4</sup>

Yet another technique is needle "twisting." As the needle twists, it actually whorls the scar tissue around the needle, causing fibroblast spreading; resulting in reorganization.<sup>5</sup> Imagine a spinning cone within a cotton candy machine as the sugars align and accumulate around the cardboard.

### DN in Action: Case Study

In one such case of a chronic unrehabilitated partial Achilles tear that presented to my office, there was a clear accumulation of scar tissue the size of small marble that was restricting ankle dorsiflexion. The patient reported that the deformity had been present for over two years. I chose an intervention that included multiple dry needles to perforate the scar at five different locations, rotating the needles along their axis bidirectionally for only a few minutes; and followed each session with active and passive ankle dorsiflexion mobilization.

After three weeks and six visits, the scar tissue accumulation was no longer externally visible, and ankle dorsiflexion was symmetrical and within normal limits. While this is merely a single case study, I have to admit it was one of the outcomes that furthered my curiosity into the potential for integrating DN into my chiropractic practice.

### The Case for Dry Needling in Chiropractic

While Western acupuncture has begun to diverge from its *chi* theory roots as it makes its foray into modernity, DN has experienced convergent evolution from its own pedigree. Ever since Dr. Janet Travell began noticing similar outcomes in TrP injections regardless if the lidocaine was ever delivered or not, DN has been a part of physical medicine.<sup>6</sup>

Monofilament needles are merely a tool. Using a knife does not a surgeon make. You are not a chiropractor simply because you utilize joint manipulation. In kind, simply using a needle does not make someone an acupuncturist. Tools do not define a profession; scope does.

If we define DN within the context of not merely the tool or even technique, but rather the scope via the intent of the practitioner, the practice becomes separate and distinct from any other. The chiropractic profession is well-equipped, with its uniquely detailed knowledge of neuromusculoskeletal anatomy and physiology, to utilize this expansion of our scope in all of the ways the peer-reviewed literature continues to illuminate dry needling's efficacy. With DN, we will no longer be relegated, treating a target tissue through the veil of dermis and a myriad of muscle layers, but rather directly and intimately accessing the target tissue in a way we never have before.

### References

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