Dry Needling

What is Dry Needling?

Dry Needling, also known as Trigger Point Needling, is a cost effective and efficient technique for the treatment of myo-fascial pain and dysfunction.

The approach is based on Western anatomical and neurophysiological principles and should not be confused with the Traditional Chinese Medicine (TCM) technique of acupuncture (Travell & Simons 1999).

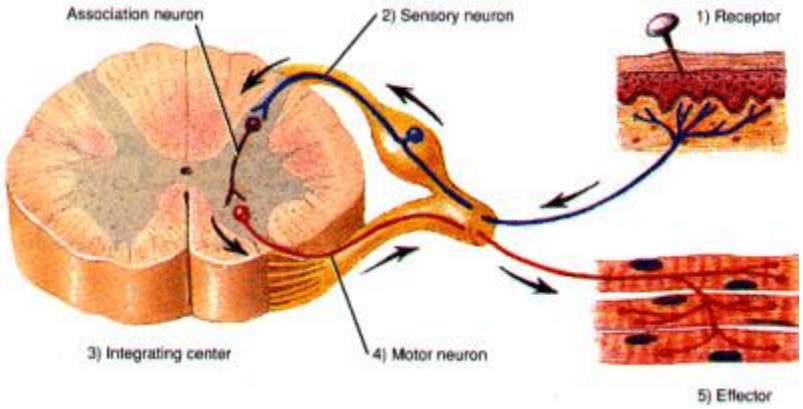
What can Dry Needling help?

Conditions which respond to Dry Needling include:

Headaches
Frozen Shoulder
Tennis Elbow
Muscle Spasms
Fibromyalgia
Sciatic Pain
Hip Pain
Knee Pain
Repetitive Strain Injuries

Myo-fascial Trigger Points (MTrP)

A Myo-fascial trigger point is an area of elevated neurological activity located in muscle/ fascia (connective tissue) that may refer pain in a localized or peripheral manner.

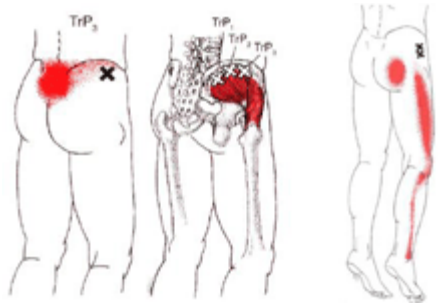


The trigger points feel like lumps in the muscle or connective tissue that are extremely sensitive to pressure. Trigger points often become self-perpetuating once they have taken hold. Releasing trigger points typically requires active treatment.

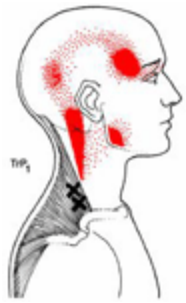
Each specific trigger point on the body has a referred pain or other symptom pattern. Myo-fascial TrPs can entrap the nerves, blood, and lymph vessels, causing a variety of symptoms that confuse doctors and patients alike. Therapy includes direct manipulative techniques externally and internally that will improve abnormal musculoskeletal physiology.

Specific exercises to stretch or strengthen certain muscles or muscle groups may be advised and taught.

Physicians Dr Travell and Simons defined a myo-fascial trigger point as a "Hyperirritable spot in a skeletal muscle".

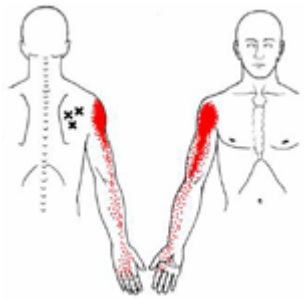


The spot is painful on compression and can give rise to characteristic referred pain, referred tenderness, motor dysfunction and autonomic phenomena.



Myo-fascial trigger points (MTrPs) are commonly seen in both acute and chronic pain conditions.

Hendler and Kozikowski cite Myofascial trigger points as the most commonly missed diagnosis in chronic pain patients.



Over the years it has been shown that it is possible to deactivate TrPs by injecting them with a large number of disparate substances (Lu & Needham 1980) The only reasonable inference drawn from this is that the pain relief obtained is not dependent on the specific properties that the substance may contain but rather on the stimulation of the needle used for the injection itself.

One of the first physicians to employ Dry Needling extensively for this purpose was Dr Karel Lewit of Czechoslovakia . Lewit (1979) reported favorably on the use of this technique in a series of 241 patients with musculoskeletal pain.

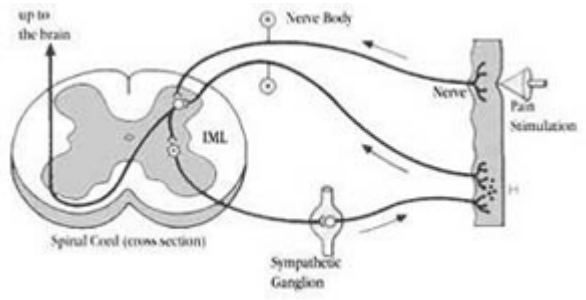
The work of Hong and Jennifer Chu support Lewitt's work and emphasise the therapeutic importance of eliciting a LTR (local twitch response).

Dry Needling may mechanically disrupt the integrity of the dysfunctional endplates within the trigger area - resulting in mechanical and physiological resolution of the TrPs. A fascinating new study by Jay Shah shows biochemical changes in the TrP following twitch elicitation. This was done by real time blood micro-sampling of the TrP as it was needled.

Many years of work by Drs David Bowsher and Peter Baldry show a strong pain inhibitory role played by Opioids released by needling stimulation of A Delta receptors.

Dr Chan Gunn in his I.M.S. approach and Dr Fischer in his segmental approach to Dry Needling strongly advocate the importance of clearing TrPs area in both peripheral and spinal areas.

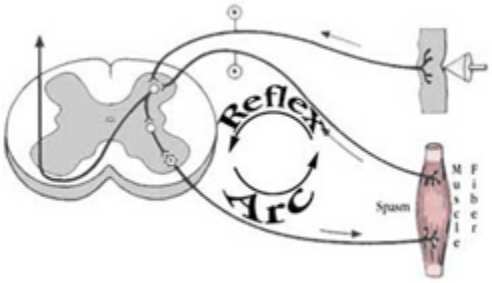
Today many Medical doctors, Physical Therapists, Chiropractors and Acupuncturists are using Dry Needling effectively and extensively within their practices for the treatment of Myo-fascial Pain and Dysfunction.



How does Dry Needling work?

1. Something causes pain. If it happens often enough or if the trauma is great enough, the pain signal may return through the Sympathetic Ganglion and activate Primary Afferent Nocioceptors (H) which will feedback to the spinal cord.

This will cause pain to continue instead of fade. It's called a Reflex Arc.



2. At the same time motor neurones may become stuck in a feedback loop/ reflex arc, facilitating muscle spasm. In some cases the reflex arc continues for years, even decades.

3. Introducing a new stimulus (i.e. the needle) impedes the reflex arc and has the effect of relaxing the muscle.

How does Dry Needling stop this cycle?

Putting a needle into a spasmed muscle causes the muscle to relax. This can be seen with an electromyogram.

Activity in a spasmed muscle reduces in amplitude and becomes regular instead of sporadic.

A spasmed muscle becomes a damaged muscle. Spasm reduces blood flow in the muscle. This means less oxygen and food to the muscle. Muscle fibres die off and get replaced by fiberous scar tissue. This in turn holds the muscle tight, prevents muscle metabolytes from leaving the muscle and causes continued spasm and pain.

What does Dry Needling feel like?

Most people's experience of needles is of those used in injections and blood tests.

Thin, Filament Needles which are used in Dry Needling bear little resemblance to hypodermic needles. They are much finer and are solid rather than hollow. When the needle is inserted, the sensation is often described as a tingling or dull ache.

Needles are inserted either for a second or two, or may be left in place a little longer, depending on the effect required. During treatment, patients commonly experience heaviness in the limbs or a pleasant feeling or relaxation.

The benefits of Dry Needling frequently include more than just relief from a particular condition. Many people find that it can also lead to increased energy levels, better appetite and sleep as well as an enhanced sense of overall wellbeing.

Are there any side effects?

As long as the practitioner understands anatomy sufficiently there are very few side effects. Side effects are very rare but when they do happen the most frequent and the most serious is that of a pneumothorax. This is where a needle pierces the lung leading to its partial or full collapse. This happens mostly when a needle is inserted into the Trapezius muscle in a certain way and too deeply.

Is Dry Needling the same as Acupuncture?

No. Acupuncture is based on the ancient Chinese philosophy of the balance of Yin and Yang. Needling certain points along 'meridians' aid this process.

Intramuscular Dry Needling is a method of reducing chronic pathological muscle shortening using needles.

Where is Dry Needling helpful and how does it work?

Many painful symptoms are caused by the development of myo-fascial trigger points within muscles and the connective tissue of the body. These can develop as a result of imbalances in the optimum functioning of the spine and peripheral joints, as a result of overuse or incorrect use of parts of the body, or as a result of a direct injury. These trigger points are capable of becoming a source of both local and referred pain.

Following the identification of these points, Dry Needling techniques are capable of deactivating them and thus reducing the pain associated with them. Occasionally, as a result of injuries and particular spinal injuries severe muscle spasm can develop. Not only can this cause additional pain in itself, but it can also present the body from returning to its healthy state.

Dry Needling is capable of releasing this spasm, thus allowing the body to return more quickly to normal and also to allow further treatment to be carried out. Sometimes pain arises as a result of chronic irritation and strain to structures of the body. With "Tennis Elbow" for example, there is chronic irritation at the attachment of the tendons to the bone. Inflammation and pain develops with the result that the muscles tighten and shorten. This causes further strain and a self-perpetuating cycle ensues. In this instance Dry Needling of the affected tissues can stimulate local healing processes as well as releasing trigger points and shortened muscles.

For more information please email us at **info@fusionbodytherapy.com**