



## **Introduction to Acupuncture:**

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Acupuncture; the word usually induces a raised eyebrow and skeptical look however the benefits of this treatment modality are numerous. Acupuncture, like all medicine, has been evolving over the last 3000 years and is currently used along with Western Medicine throughout much of the world. It gained the most recognition in the United States after Richard Nixon's visit to China in the 1970's. During this visit an American journalist traveling with him developed appendicitis and had to have the offending appendix removed. The interesting and impressive factor to this surgery was that the anesthesia was performed using only acupuncture. Due to recent public awareness, there has been an increase in research and thus an overall understanding of the physiologic mechanisms of acupuncture.

### **Where to start:**

The Diagnostic Acupuncture Exam (DAPE) is a thorough exam evaluating the entire horse from head to toe. Combined with our western physical/lameness exam, DAPE provides a very comprehensive examination in determining the most beneficial treatment plan. Acupuncture is an excellent compliment to Western Medicine for providing additional overall pain control, enhancing management of chronic diseases and speeding the healing time from acute injuries as well as post-operative recovery.

### **Why Stick Needles to Improve Pain:**

How can a few tiny needles placed in apparently random spots in the body possibly help healing or pain? It is a curious question to most of us. However if one studies anatomy and nerve pathways, acupuncture points start to make more and more sense.

Acupuncture provides neuromodulation of sensory nerves. Points are identified as locations where nerve bundles penetrate fascia, locations where nerves come up through the muscle (closer to the skin) in close proximity to blood vessels or as trigger points. When a needle is placed into one of these areas it causes micro-trauma and induces a neurovascular reaction, capillary dilation and tissue repair activation. This reaction stimulates the local nerve branch which communicates to the central nervous system telling it to heal along the nerve and to the site of the needle stick. In doing this, the nerve is also sending impulses to every one of its branches (to specific muscles and organs for example) increasing their neuroactivity and stimulating the brain to release various hormones and transmitters which affecting the body by reducing pain, inflammation and normalizing circulation.

Acupuncture treats pain in three ways:

1. Release of endogenous opioids,
2. Improving circulation and oxygen delivery through vasodilation
3. Inhibition of pain pathways.



Trigger points are areas of marked pain in the myofacial layer caused by prolonged muscle tension, spasms, or are the result of inflammation. Trigger points are easily palpable as a hard, painful nodule or knot. Trigger points weaken and prevent full lengthening of the muscle. This decreases the amount of blood in capillaries, decreases the amount of oxygen delivery and causing tissue hypoxia (lack of oxygen). This is a painful condition, but one that can be treated in a few sessions or less.

### **Techniques:**

There are many ways to stimulate acupuncture points. Among the most common are dry needling, electro-stimulation and aquapuncture. Dry needling is the insertion of needles augmented only by manual manipulation. Electro- stimulation is applying a mild electrical current to dry needles in order to influence deeper pain fibers and structures. Aquapuncture is the deposition of small amounts of vitamin B12 or sterile saline into the area of an acupuncture point. This allows for constant stimulation of the point and is often used in more chronic pain treatments.

### **How does it feel and is it safe:**

Having had acupuncture myself I can tell you the feeling varies on where the needle is placed. The actual placement of the needle can feel as strong as a pin prick or go completely unnoticed. Certain horses will react differently depending on their personality and degree of pain. The sensation of the needle after placement can be a dull ache or mild cramping and a sensation of an impulse "traveling" up the nerve. The needles used are sterile, very thin (0.2-0.3mm) and side effects are extremely rare. The number of treatments required will depend on the medical condition and how long it has been present. Each treatment is between 5 and 30 minutes.

It should be mentioned that acupuncture is not always a treatment modality on its own, but an adjunctive treatment that in combination with Western Medicine can often improve the outcome considerably. One should always first pursue a good diagnosis prior to or during an acupuncture exam.