

The Horse's Mouth

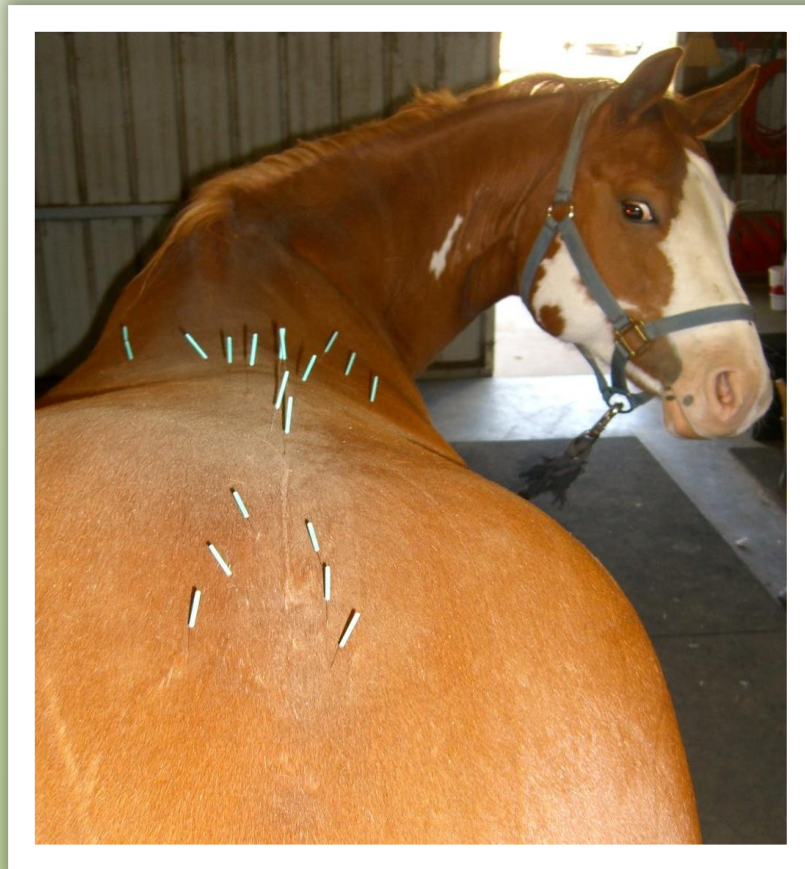
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Equine acupuncture

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This is a 14 year old QH gelding that presented with a heel bulb laceration of the right front. These photos were taken after the wound had begun to heal but the horse was still sore. I placed needles along the path of the palmar digital nerve of both fronts since the left front was at risk of compensatory problems due to abnormal amount of weight shifted away from the painful foot.

Growing acceptance of acupuncture is good news for horses. Acupuncture is minimally invasive, safe, effective and reasonably affordable. In this article I will briefly address the following common questions that horse owners ask me about acupuncture. Is it safe? What happens during a treatment? What are acupuncture's effects? What conditions does it treat? How does it work? Is there any scientific research on equine acupuncture?

Compared to most medical or surgical options for common equine conditions, acupuncture is very safe. Provided you find a veterinarian certified in acupuncture, the risk of harm to your horse is negligible. No medical treatment works 100% of the time. I do not have formal records but my sense is that 80% of horses I treat respond to acupuncture in some obvious beneficial way.

As for which horses are likely to respond, I have not found a way to detect this ahead of time. Therefore when someone asks me if acupuncture is likely to work for a particular horse, all I can say is let's try and we'll find out! The cost of a therapeutic trial is within reach for most owners, and the low risk is additional incentive to try. Several treatments may be needed but you will know within 1 to 3 treatments if your horse responds well to acupuncture.

Most horses tolerate and many even enjoy the treatments. Acupuncture effects can happen immediately after needles are placed. The most common reaction is relaxation. Some horses look like they have just been sedated for a dental or other standing procedure: their head drops, they may drool, their eyes close. But beware because they can wake up very quickly!

Effects of acupuncture are cumulative. Sometimes no effect is seen after the first treatment but after the second you may see changes in comfort, movement, attitude, healing or whatever monitoring parameter indicates change for your horse. For most conditions I treat, some response is seen within the first 3 appointments. If I treat a horse 3 times and no obvious change happens (either something I find on the physical exam or something the owner reports in performance) then I suggest to the owner it may not be worth paying for more acupuncture. Sometimes additional diagnostics are needed. Sometimes the diagnosis is solid but that patient needs a different treatment.

You might want to know if acupuncture helps a particular condition such as colic, laminitis, insulin resistance, heaves, or reproductive issues. Acupuncture is not a condition-specific treatment (except maybe for pain, more on that in a moment). Acupuncture can help the body maintain homeostasis and therefore is appropriate when used as part of multi-modal treatment for various conditions. Simply put acupuncture can help the body regulate itself better.

It is common for patients receiving acupuncture to heal faster than they would without acupuncture. Patients with chronic conditions that require medication may do well on lower doses of medication.



The left shoulder had excess myofascial tension from altered weight bearing so needles were placed in the shoulder and triceps trigger points.

Acupuncture works on many different levels in the body by influencing the central, peripheral and autonomic nervous systems, which are involved in all physiologic functions. Because acupuncture has such widespread effects, there are multiple mechanisms for how it improves homeostasis. But the most well documented mechanisms that have been reported in the literature involve pain relief and anti-inflammatory effects.

Therefore regardless of the disease condition, if pain or inflammation is involved, acupuncture is likely to help to some degree. Since many disease processes involve pain and inflammation, acupuncture can have beneficial effects in many conditions. Acupuncture improves

gastrointestinal function and can therefore be useful in colic cases that are non-surgical. If you search for publications on acupuncture for almost any medical condition you will probably find some information.

Depending on the disease condition, you may find only a few case reports or you may find many scientific studies on humans or rats. What you will not find is much research on horses! But the mechanisms of pain and inflammation modulation are similar across species. Therefore it is logical to assume that acupuncture works on horses the same way it does on rats, humans, and other animals studied.

Research on equine acupuncture has investigated its use for gastrointestinal [1], pulmonary [2] and reproductive conditions [3]. Some equine pain research has been done on experimental visceral pain [4], experimental lameness [5,6] and on naturally occurring back pain [7,8].

In my practice I use acupuncture on horses for different conditions and I find it particularly well suited as part of multi-modal treatment for laminitis. Because laminitis, regardless of the underlying cause is painful and involves inflammation, acupuncture is appropriate for symptomatic treatment. If the underlying cause is known, acupuncture can sometimes help with that too. In addition to treating foot pain, acupuncture can be effective at relieving musculoskeletal pain in the rest of the body by treating myofascial trigger points.

Myofascial trigger points are abnormal areas of muscle and/or fascia that are stuck in a chronic contractile state. You have seen laminitic horses with altered posture. When horses stand or walk with abnormal tension patterns they develop muscle "knots"; you can sometimes palpate them in the neck, shoulders and over the topline and hind end. These areas of muscle undergo an energy crisis so they cannot relax. It takes energy to relax a muscle, and the acupuncture needle placed in (or even just near) this area of abnormal muscle can normalize muscle physiology allowing it to relax. To understand something about myofascial trigger points, think for a moment about what happens to muscle tissue after death. It develops rigor mortis because the dead body no longer has energy to relax.

A myofascial trigger point is not "dead" muscle but it is in a state of ill-health and does not have enough energy to function normally. So when a needle is advanced into this tissue, the microdamage stimulates a local immune response. Fresh blood delivers needed nutrients and the muscle tissue can normalize or at least move towards normal. There is more to the mechanisms of trigger point acupuncture, including what happens within the spinal cord segments that innervate the tight muscle as well as what happens in the brain that ultimately results in improved muscle tone. But the blood flow changes to local area around the needle are one part of the mechanism that is easy for people to understand. Even if you have never had acupuncture you know just from cutting or scraping yourself that the local immune response to injury involves changes in blood flow.

Horses with chronic laminitis invariably have some myofascial trigger points that are likely to be relieved with acupuncture. But even healthy sport horses can develop muscle holding patterns that can benefit from acupuncture.

I have regular clients whose horses are healthy but the owners like them to have maintenance acupuncture treatments a few times a year or sometimes before and after performance events. There is no way to be sure if acupuncture in these cases contributes to health or not. Anecdotally many owners believe their sport horses do better overall when getting regular acupuncture compared to how those same horses did in previous seasons before acupuncture was part of their routine. But as readers of this journal know, that is not proof of anything.

Regardless of the lack of proof for using acupuncture as health maintenance, there is evidence of its use for treating pain and disease in humans and other animals. The limited research on horses suggests it is equally effective in our favorite species too. As more research is published on equine acupuncture clinicians will have more specific guidelines for evidence based treatment protocols. In the meantime acupuncture is still a modality worth exploring for your beloved equine companion.

To learn more about veterinary acupuncture see articles on the CSU Integrative Pain Medicine website: <http://csuvets.colostate.edu/pain/articles.htm>

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