

## **What Can “Physical Therapy” Do For My Horse?**

Got your attention? Great, but first I need to clarify that the American Physical Therapy Association (APTA) does not approve of the use of the term “physical therapy” to be applied to any other animal other than humans. Nor can that term, we’ll shorten it to the acronym of “PT”, be utilized by any other professionals other than a licensed Physical Therapist. So now that I have gotten that out of the way, I will refrain from using the term “PT” and refer to myself in the treatment of equines with therapeutic approaches as a **Certified Equine Rehabilitation Practitioner (CERP)** performing equine rehabilitation services.

Horses have similar physiology to humans allowing them to experience tissue breakdown, inflammation, pain responses and the ability to heal. The healing process is a very complicated biological process of multiple systems all working towards minimizing damage, containing the area of involvement, sending chemical mediators to control infection, and the rebuilding of tissues. The problem is that often the healing scenario does not go smoothly. It can be complicated with infection, development of excess tissue build up (known as “proud flesh”), scar tissue adhesions, and overall deconditioning of the animal's general health, with less than favorable outcomes. Often the general treatment for many equine injuries is providing the horse with immediate first aid, pain medications, and stall rest with occasional walking in hand for many weeks, putting the horse and owner in a frustratingly expensive situation with very slow progress.

This is where a CERP can help. The **goal of rehab is to *increase the rate of healing and have the end result turn out as close to the pre-injury condition as possible.*** To achieve this, the CERP can use a multitude of **modalities** such as heat, cold, ultrasound, electrical stimulation and LASER, along with hands-on manual techniques and exercise programs. The knowledge a CERP brings to this scenario is the ability to understand the phases of the healing, knowing when each intervention is appropriate and necessary. Often, by controlling the healing process, excess collagen formation can be limited, reducing the complications of excess scar tissue and undesirable adhesions that form between tissue interfaces that prevent the tissues from gliding.

The variety of tissues (skin, tendon, muscle, ligament, bone) have different healing rates with different tensile strengths throughout their individual healing processes. For example **suspensory ligament** strength goes through a period of healing, followed by a period of weakness when it is most vulnerable to rupture, before it proceeds on to regaining its close-to pre-injury strength. Unfortunately, studies have shown it is never as strong as it was prior to injury.

Controlled exercise has been shown to play a significant part in strengthening tissue while healing. **Bone**, for example, is known to grow according to the forces that are applied to it, hence the reason behind many walking cast on humans these days. The stress of partial weight bearing actually helps remodel the bony callous and promote realignment, adding strength to the fracture site as it heals; think of Barbaro with all the metal screws in his leg bones with external casting. When animals are immobilized and non-weight bearing, fractures heal poorly with less than favorable bone density results.

The same is true for healing of soft tissue structures. Many of them, **muscle, tendon and skin** for example, are known to have contractile properties. These are prone to becoming shortened and contracted if proper stress or weight bearing is not applied. Often this can become a crippling scenario. For example, damage to the **flexor tendons** causes the horse to shift weight off the affected leg, to unload the injury, allowing contracture or shortening of the tendons. If bandages are too tight or improperly wrapped, the tendons can shorten even more. The toe goes down, the heel curls under, and eventually the horse will not put weight on the limb. If this scenario is not addressed early, further (surgical?) intervention may be needed. A CERP can treat the horse with weight shifting techniques along with educating the owner and barn staff in these exercises to prevent contracture of the healing tissues during this phase.

Here are a few things to keep in mind:

- This is a developing field. Those that have ventured into it are considered pioneers with the goal of finding better ways to rehabilitate equines faster. The aim of rehab is to promote the best recovery potential possible while doing no harm to the animal.
- Respect for the size and power of equines is maintained at all times to avoid trauma whether it be physical or psychological while applying treatment.
- Most treatments approaches are non invasive. The modalities of laser, therapeutic ultrasound, heat, and cold are all tolerated well by equines.
- **Equine massage, acupuncture and chiropractic** are all great treatment approaches to utilize in conjunction with or as a compliment to the rehab protocols.
- **Under the law, a CERP must work under the supervision and awareness of a veterinarian, therefore before a horse can be treated by a CERP a vet evaluation and referral is a must!! Ideally the vet and CERP agree on the diagnosis, treatment and desired outcomes.**
- Equine rehab practices are **reimbursable by most equine insurances.**
- A CERP may not know all the answers, but will try to find the answers for the questions that arise.