

# Tacoma Equine Hospital

3112 – 156<sup>th</sup> Street E. Tacoma, WA 98446 ♦ 253.535.6999

## CHIROPRACTIC

*Dr. Diana Rawstrom recently became certified by the International Veterinary Chiropractic Association (IVCA) to perform Animal Chiropractic. She traveled to Kansas multiple times last year to attend the “Options For Animals” College of Animal Chiropractic to learn the theory and practice of this powerful modality, which can enhance both the performance and overall health of your horse. She is very excited to add this to the services that she can offer to you and your horse. The following is a brief explanation of what animal chiropractic is, how it is performed, and what its potential benefits are.*

### **What is Animal Chiropractic?**

Animal Chiropractic is a manual therapy focused on restoring and maintaining the health of the nervous and musculoskeletal systems. The science and philosophy of chiropractic focus on the intimate relationship between the spine and the nervous system, as well as the role of the spine in biomechanics and movement. The basic premise of chiropractic theory is that biomechanical dysfunction of the spine inhibits the function of the nervous system and, since the nervous system controls all functions of the body, adversely affects both coordination of movement and overall health.

Chiropractic certainly does not replace traditional veterinary medicine; however, it is an additional means of diagnosis and treatment for spinal problems as well as musculoskeletal problems related to biomechanical disruption. Chiropractic can often eliminate the source of acute or chronic pain syndromes.

### **The Spine**

An animal’s spine is a complex structure consisting of bones, ligaments, muscles and nerves. It performs multiple functions, the importance of which is often underestimated. The spine provides a framework of support for the body, flexes and extends to allow the body to move, and protects the spinal cord and the internal organs.

The horse’s spine begins with bones called vertebrae. In the horse, there are 52 vertebrae and nearly 200 joints. Joints are held together and supported by a vast number of ligaments, tendons, and muscles.

The purpose of a joint is to allow movement—if that weren’t the case, the spine would be a solid, inflexible bony structure. Each joint in the horse’s spine moves only a few millimeters, but when added together these small movements sum to allow the horse the flexibility to jump over four-foot fences, bend around a barrel at high speed, or scratch his rump with his teeth.

The star of this show is the spinal cord, which runs through the spinal canal in the center of the vertebrae to connect the body to the brain. Nerves branch off from the spinal cord and leave the spinal canal in pairs. These nerve branches (called spinal nerves) leave the spinal canal through

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small spaces formed by adjacent vertebra. Nerves transfer information between the brain, spinal cord, organs, muscles, and other parts of the body. As the central nervous system monitors and controls all organ and tissue function, the transmission of information to and from it must flow freely to allow proper function.

## **What is a vertebral subluxation complex (VSC)?**

The simplest way to think of a vertebral subluxation complex (VSC) is “stuckage”. Two vertebrae in the spine are not moving as well as they should be in relation to each other—hence, they are stuck.

The result of a VSC is that the animal loses normal flexibility in that portion of his spine. He must compensate for this lack of movement by overflexing a different part of his spine. This causes him to use more energy and engage different muscles than he would if his spine were working properly, which can result in muscular tension and stiffness. If the vertebrae remain stuck in this fashion, over time this will ultimately negatively affect the horse’s performance and lead to more VSC’s and subsequent compensations.

Additionally, reduced mobility at a VSC can affect the nerves that leave the spinal cord between these adjacent vertebrae, interfering with the flow of sensory information to or output from the brain and spinal cord. In turn, this can affect the animal’s coordination, causing the animal to be unable to perform at his best and putting him at risk for missteps that can cause injury.

## **Common Causes of VSC’s**

VSC’s are caused by numerous events that a horse may encounter in her daily life, such as:

- ❖ Trauma
- ❖ Conformation, particularly long backs
- ❖ Lack of movement from stall confinement
- ❖ Performance, e.g. quick turns and stops vs. jumping over obstacles
- ❖ A crooked seat or poorly balanced rider
- ❖ Poor saddle fit
- ❖ Accumulation of small traumas to the spine with age
- ❖ Poor hoof care or incorrect shoeing
- ❖ Birthing difficulties

## **What are the signs of VSC’s?**

Animals with back pain and VSC’s can show their discomfort in many different ways, ranging from decreased performance and subtle personality change, to tail swishing or bucking a rider out of the saddle. The signs the animal shows depend on the location of the pain, the intensity of the pain, and the horse’s personality and work ethic. One rider may notice that her horse is having more difficulty than usual flexing at the poll, while another may notice her horse has difficulty working long and low – either of these may be manifestations of a VSC.

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## **How can a VSC be corrected?**

When an animal chiropractor identifies a VSC during an examination, he or she aims to restore mobility to the vertebral joints. To put it quite simply, the chiropractor makes “stuck” joints “unstuck”.

Correction is made via a quick, short thrust along the plane of the joint. This is called an adjustment. The adjustment moves the affected joint past the point where it is stuck, but NOT outside the normal anatomical range of motion of that joint.

## **Is Animal Chiropractic safe for my horse?**

Veterinarians and chiropractors certified by the IVCA (International Veterinary Chiropractic Association) or the AVCA (American Veterinary Chiropractic Association) have gone through extensive training courses where safety of the horse is a primary concern. They are taught to adjust using primarily “short-lever” techniques in which the hands are placed directly on the affected vertebra and the adjustment is aimed in a very specific plane for that joint. The doctor is more likely to hurt herself than to hurt your horse if she is not properly set up for the adjustment.

In contrast, “long-lever” techniques are less safe because they are non-specific, can affect several joints at a time, and are much more likely to take a joint beyond its anatomical range of motion. IVCA and AVCA-certified doctors are not taught to adjust using long-lever techniques or with any tool other than their hands.

## **What can I expect from a chiropractic appointment?**

The chiropractic examination will start with a discussion of your horse’s medical history, your concerns about his current performance, and your expectations for him. The musculoskeletal system will then be evaluated for symmetry, heat, swelling, pain, and muscle atrophy. The animal will then be motion-palpated to identify VSC’s, which will each be treated with a chiropractic adjustment.

All animals respond differently to chiropractic treatment. Many will show improvement almost immediately, while others will take 24-48 hrs before they achieve full benefit from the adjustment.