

*Spring is just around the corner! Most of us are hoping that the weather breaks soon, so we can start riding and preparing for the upcoming show season. Everyone will soon schedule their veterinarians to come out to vaccinate or to have a coggins test performed on their horses; but how many of us have an equine dentist come out to do their horses' teeth? Many may not realize that horses need to have their teeth done by a qualified professional at least once a year. I decided to write an article to help inform horse owners the importance of having your horse's mouth balanced before the show season starts. Since we cannot see our horse's teeth, many of us wait until problems arise such as trouble eating, keeping weight on, hard to bridle, less responsive to the bit, and tossing of the head. By that time, your horse usually has a larger problem, which may be costly to fix. As horse owners, we do not wait until the feet are bad before we have the farrier come out. Instead, we usually have them scheduled to come out every six weeks or so to keep their feet maintained. The same is true with teeth. It is important to have a qualified equine dentist come out every 6-9 months for regular check ups and maintenance. I hope you find this article informative and for further information you may contact me via email.*

## **Equine Dentistry 101**

Like the old way of training and riding, man had a mold and the horse was broke and trained to fit that mold. In today's world of equine dentistry, the people performing "dentistry", are also using a mold that they were taught by someone else and attempting to make it fit all horses that they work on. I believe we should tailor equine dentistry to fit the horse and its specific needs and riding discipline. I have found that performing whole mouth equine dentistry includes all the following points:

### **Point 1- Head Symmetry**

The shape of a horse's head differs according to breed. Therefore, special attention should be focused on bone and muscle structure of the horses head. Before a dentist even picks up an instrument, he or she should evaluate the muscular structure of the head to understand how the horse has been chewing. Are there any injuries, broken bones, a twisted pre-mandible or pre-maxilla, or any asymmetries? Is there any swelling or discharge? Are the TMJ joints sensitive to the touch? Such signs can tell me what I can expect to find before even looking in the horses mouth.

### **Point 2 – Body Structure**

Like the horses head, the body is also built differently. Abnormalities in the body can also be a sign of dental problems. Is the horse bending at the neck and flexing at the poll where he should or is he flexing between vertebrae C1 and C2 (indication that the caudal/rostral movement is limited in the mandible and not allowing for the neck and poll to flex)? Are the withers, croup, and flanks rounded with good muscle tone or are they atrophied? Is there unexplainable lameness, especially in the hocks? Are there signs of chronic lameness or severe injury such as bowed tendons, founder, etc.? Lameness can affect the wear pattern in the horses' teeth and will need to be addressed. Even if the teeth were addressed, after only a few months the same problems will reoccur because lameness can be directly related to teeth and vice versa.

### **Point 3 – Check Teeth (Molars)**

After observing the head and body structure, the dentist should now examine the molars. My goal when balancing the molars is to enhance the biomechanical movement of the mandible (caudal/rostral movement) with the least amount of tooth reduction. When the horse lowers its head to eat, the mandible will move forward and the incisors and molars will align. The same thing happens when the horse is asked to perform various tasks. If the horse has a malocclusion, it will not want to round up or collect and this will result in fighting the bit. I have found when balancing the horses mouth and eliminating the malocclusion, the horse will perform excellently. This is also based on yearly dental maintenance. Once the horse is balanced, they will need to be maintained with yearly visits. Regular dentists who come out only to float the sharp points will over look most malocclusions and thus resulting in identifying the horse as stubborn, or in some cases hard to handle, when it should be identified as a horse in pain.

### **Point 4 – Front Teeth (Incisors)**

After balancing the molars, the dentist will need to balance the incisors. Most horses will need incisors reduced prior to balancing the molars, because the horse is not in its natural grazing state as would occur in the wild. In the wild, a horse generally grazes for about fourteen to eighteen hours a day. The abrasive silica in the grass will naturally wear down the teeth. Unfortunately, with today's horses living in unnatural environments (stalls, paddocks, and pastures), natural wear is not possible. Incisors are to be used for prolonged periods of grazing and upon first looking at the horse's incisors, we will often find them excessive in length in older horses, as well as wedged or jagged. In younger horses we often find caps or retained caps. Which brings me to what I feel is very important at this point. That being, after checking the incisors, molars, and observing the pathology of all the teeth, I will then perform the necessary incisor work to correct any problems found. Only when the incisors have been reduced and aligned, the horse will have a 3-point balance (incisor, molars, and TMJ's).

### **Point 5 – Checking Your Work**

When the dentist has finished doing work on the teeth, he or she should manually check the lateral excursion of the mandible and also checking for caudal/rostral movement. When checking the lateral excursion he or she should be checking for the simultaneous occlusion or the contact of all the viable teeth with equal pressure in the molar arcades. This gives a good idea of how well the horse is balanced. However, manually moving the mandible alone does not give you an accurate reading, because the horse could be riding on a high tooth giving the dentist the impression that the horse is balanced. The dentist should back up the all evaluations with visible looking down the horse molar table with a light and look to see if all the teeth in the arcade are meeting at the same time (simultaneous occlusion). This gives you the best and accurate reading when checking for simultaneous occlusion and checking to see if the horse is balanced properly. The bottom line is a dentist should be checking for the natural balance of equal pressure among the incisors, molars and TMJ.

## **Point 6 – Handling Horses**

Horsemanship today involves compassion, understanding the horses' needs, and intent. The horses' needs should come first while doing dentistry, although this is not the norm in dentistry today. Due to today's advancements in dentistry, horses will need to be sedated so that technology can allow us to pin point the problems and address them with minimal amount of tooth lost and time in the horses' mouth. If the speculum (a device that holds the mouth open) is not used, it is not possible to see and feel everything in the back of the mouth or able to address the teeth properly. With the horse properly sedated, it allows the dentist to get in and out in less time with the use of electrically powered instruments, and allows the dentist to be thorough in his work. Performing dentistry on un-sedated horses does not allow the dentist to use powered instruments, a full mouth speculum, and in most cases, not enough time to work on the horse properly. However, with a sedated horse, the horse is less stressed, the experience is a positive one, and there is minimal to no soft tissue damage. In the long run, the horse is happier and in some cases, the horse can be rode in the same day.

I feel that horses today are getting the short end of the crop, so to speak, when it comes to dentistry. The horses tell us that they are uncomfortable, and yet we are unable to read the signs. Educate yourself and know what to look for. Make sure your dentist knows what he or she is looking for and can determine what should be done for the horse's best interest, not only in doing dentistry, but when handling the horse as well. Horse dentistry is just a piece of the whole horse puzzle. There is no "I" in team and we, as horse professionals, need to work together to help the Horse. If you're interested in more information on dentistry or other articles that I have written, feel free to e-mail me and I would be glad to answer any questions that you might have or send out any information that I might have to you.

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