

Equine Dentistry - 2015

During the past 20 years, the field of equine dentistry has changed significantly for the better having seen more advances in equipment, procedures and research than ever before. We have an improved understanding of how different dental irregularities affect the ability to chew, gain weight, and the horse's overall comfort. This information has provided knowledge on how dentistry can enhance performance in all horses.

Anyone conducting an equine dental examination without a speculum and a good light source has a very real chance of missing problems and irregularities. A thorough examination includes looking for any damage from sharp teeth including ulcers in the side of the mouth, and irregularities such as hooks, ramps and waves that are affecting the chewing surface. Molars, premolars and incisors should all be checked for malocclusions such as irregular heights, angles and shapes.

It is often difficult to break free from old ideas and habits that have been around for years. The performance of equine dentistry is very important for your horse and let me explain, as there are a few factors to know to understand the significance. First is "floating", which is rasping or blunting the sharp points that form on the teeth. The points can cut, abrade and pierce the surrounding soft tissue. The horse has an upper jaw that is wider than the lower jaw and so it is offset and has a table or chewing angle of 10-15 degrees.

The second is that the occlusal or chewing surface must be balanced. Hooks, ramps and waves are the peaks, valleys and irregular shapes that have occurred over the months and years of chewing. Most horses do not have a level chewing surface and will need some degree of balancing.

It is very important to remember that a horse has hypsodont teeth that wear and erupt continuously during their lifetime. They start out roughly 4 inches long and are down to ½ inch by the time they are 25-30 years old. The surface of the tooth that wears or chews is called the occlusal surface. So how much tooth do you shape and how much of a reduction do you make on the chewing surface. The fundamental answer is "as little as necessary to reduce the irregularity, provide balance to the mouth and comfort to the horse". It is also important not to round or dome the tooth since it is difficult to chew roughage with a cue ball. The chewing surface should be even with rounded edges. There are certainly instances of those doing equine dentistry taking off too much tooth (it is the operator, not the tools that cause this) as well as those who don't take off enough to balance, which is why good visualization and equipment is essential.

The third factor is correct jaw movement. There are 3 main areas of interest which are the incisors, the premolars/molars and the TMJ or temporomandibular joint. The TMJ is where the lower jaw or mandible hinges on the head to be able to graze and chew. For the mouth to be balanced, there must be even contact between all of the teeth including the incisors. I have seen proper floating of the rear teeth and no attention to the incisors; this often leads to the incisors sliding across without any molar contact. If the incisors are reduced too much this can create strain on the TMJ ligaments causing soreness. It is important to make sure that all 3 areas are working together in unison.

So, now that you have some guidelines for understanding equine dentistry, let's look at some commonly asked questions. At what age should I have my horse evaluated and how often should the dentistry be done? The first age to check the teeth is within the

first 2 weeks of life since the newborn will erupt 16 baby teeth in that period. It is uncommon that any dental procedures would be done at this time, but if a deformity such as an under bite or over bite “parrot mouth” are discovered, then a plan of action for correction can be established. It is important to have the horse examined prior to biting and training (usually 18-24 months) to balance the mouth and remove any wolf teeth. These deciduous “baby” teeth can get incredibly sharp which can definitely have an effect on the comfort with the bit and reining. Add a tie-down or any other training aid that causes the cheek to be pushed against these sharp teeth and it’s no wonder head tossing becomes a constant problem.

Horses will begin losing baby teeth at approximately 2 years 6 months of age. This natural progression starts with the central incisors, followed by the 2nd and 3rd premolars (referred to as the #1’s, 6’s & 7’s in dental terminology). This adds up to 12 deciduous teeth, in a 6-month period, that are being pushed up out of the gum by the permanent teeth. These deciduous teeth are now referred to as “caps” which sit on top of the permanent teeth until the tooth is completely released from the gum. The “cap” often stays attached to a portion of the gum until the tongue or chewing pushes it free. Some “caps” don’t release but are loose and packed with decayed feed material and must be removed manually. As the #6’s come into wear, the rostral or front edge is rolled and is referred to as a bit seat.

Older horses frequently have the most severe problems and unfortunately their dental care is often neglected. All the dental irregularities that exist in their mouth have possibly been there since the permanent teeth erupted and have ground against each other for years, which exaggerates the irregularity.

These older horses as with all horses need to be maintained on an annual basis. Dentistry should be considered a regular part of your horse’s oral care just as the farrier is a regular part of your horse’s hoof care. Remember that you don’t wait for the shoes to fall off before you call the farrier, so don’t wait until the problems arise before you call a dental professional.

I hope you can now better understand why those of us who choose equine dentistry as a specialty and not as a sideline are so interested in this field. The amount of research that is currently being conducted and the level of interest in dental care within the equine community are at an all-time high. The technology is improving with the development of even better and safer equipment. Through research and technology you have available the latest and best treatments for your own teeth. I believe that your horse will also benefit through technology to be healthier and happier as a result of proper equine dentistry.

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