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Raising the Quality
of Veterinary Care
for Your Horse

Care of the Equine Mouth

The horse has existed for over 55 million years. As diet changed from soft leaf to tougher grazed grasses the horse dentition evolved to its present grinding efficiency some 15 million years ago.

Humans have brachydont teeth which have small enamel crowns and short “roots.” Equine teeth are hypsodont and have a 4 inch long reserve crown hidden below the gum line. As grinding wears away the upper surface, the reserve crown continues to erupt approximately 4mm per year to accommodate the loss. Thus, despite continual surface erosion, the teeth are designed to last about 20 years. However, as horses are living well into their late 20’s and even 30’s routine dental examination and care are crucial to maintain a high quality of life in the senior horse.

Horses, like people, have baby (deciduous, cap) teeth and permanent teeth. Foals have 12 incisors and 12 premolars that erupt from birth to 6 months. The permanent teeth consist of 12 incisors, 12 premolars and 12 molars. In addition some horses have wolf teeth (the first premolars) and most males and some females will have canine teeth. So the final count can range from 36 to 44 teeth which erupt from 6 months to 4 years. Just between the age of 2 ½ and 5 there are 24 teeth being shed and up to 32 new teeth erupting into the mouth!

Prehending and chewing (mastication) is a complex process involving the lips, jaw, the muscles of mastication, teeth, tongue, salivary glands and saliva all working in harmony. As the head is lowered to the ground, the lower jaw slides forward aligning the incisors for efficient clipping of the grass while avoiding tearing up roots along with dirt and grit. (Horses can pull up grass with just their lips if they have lost all their incisors!) The tongue then directs the food to the deeper areas of the mouth for grinding. Chewing is a cyclic, rhythmic, 4 phase process in which the jaw opens, slides sideways, closes to oppose the teeth surfaces, then grinds those surfaces sideways to return to the starting point. The process is repeated until the food is fine enough to form a wad or “bolus” for swallowing. In the horse the saliva does not start “flowing” until chewing begins so the Pavlov dog experiments with salivation would not have worked with the equine. These initial steps in feeding set the stage for the rest of the digestive process; any pathology within the mouth that alters this process will upset the digestive balance and affect the horse’s ability to properly nourish itself. In addition, anyone who rides is aware that a sore mouth can adversely affect performance under saddle.

Proper oral care therefore must address this entire process; it can not be limited to the standard practice of “floating”. There are 5 areas that require thorough examination. First is an external exam of the head looking for muscle health, head symmetry, abnormal growths or swellings, proper jaw hinge mechanics and any signs of pain on palpation. The remainder of the exam should be performed under sedation with a speculum and dental halter in place to optimize visualization, palpation and mirror examination. Secondly the soft tissues (gingiva, mucosa, tongue and palate) are examined for color, ulcers or abrasions. Next the grinding (occlusal) surfaces are inspected both visually and digitally noting any sharp points, missing teeth, the levelness of the table angle top and bottom, abnormal staining, and proper occlusion. Then, the periodontal tissues are examined for inflammation, evidence of food packing or draining tracts denoting deeper tooth root abscessation. Finally an endodontic exam looks for cracks or cavities that may compromise the integrity of the tooth.

Only now can a diagnosis and treatment plan be formulated. Treatment may include a routine dentistry to level sharp points and correct a poor occlusal angle but may also include radiographs, extractions, medication to address pain or infection and dietary changes/restrictions. Lastly as in any medical endeavor, documentation is crucial to map progress, to determine if treatment plans are working and to share information between doctors, owners, trainers and riders.

At Finger Lakes Equine Practice we recommend starting regular oral care prior to biting the horse or at 2½ years of age. Because of the multitude of changes occurring in the mouth and the fact that many horses are “in training” at this age we recommend dental exams every 6 months until the age of 5. After the 5th year, the permanent dentition should be in place and the dental exams can be reduced to annually. Horses over 15 years of age are considered seniors and may require more frequent examinations once again depending on the condition of their mouths but that frequency would be determined on an individual basis. It is an old wives tale to say that horses over 20 do not need dental care. Perhaps the old wives had no teeth!

Much controversy has arisen over who should perform dental care for the horse. Non veterinary equine floaters may legally perform a “float”. They may not sedate. They may not diagnose or treat any other condition of the oral cavity. The complexities of both the oral cavity and the process of chewing as well as the long term implications from pathology therein, dictate that medical oral care be entrusted to someone who is trained to treat the entire patient. Dr. LaPoint has extensive advanced training in equine dentistry. He served as a consulting veterinarian for equine dentistry at the equine veterinary teaching hospital at Cornell for many years with operating privileges at that facility. Please consider Finger Lakes Equine as you plan the necessary and deserved oral care for your equine companion.