EQUINE DENTISTRY REVIEW:

Proper care of a horse's teeth is important for proper digestion of feed. This is critical to maintaining healthy body condition, as well as to reduce the risk of choke and colic. It also maximizes their athletic potential under the bit. The horse's teeth, unlike ours, are continually erupting; that is, there is a finite amount of tooth the horse will have for the rest of their life that consists of a crown (the visible portion of the tooth), a reserve crown (the portion of the tooth that is in the socket that will become the visible portion as it erupts), and the root. As the tooth erupts, its comes into occlusion or contact with the tooth it opposes. This intimate relation between opposing teeth is what allows them to digest forage such as grass and alfalfa. Throughout their life span, these teeth will naturally wear down; during this dynamic process both normal and abnormal wear patterns can occur. The result can be either pain or premature wear out of the teeth. It is this finite life span of the teeth and the discomfort that can result from even regular wear patterns that makes annual dental exams important for the horse.

A common misconception is that dental exams and floats are only for adult horses. In fact, one of the most important times to evaluate a horse's teeth is in the juvenile stage; the period from birth to 5 years of age. Similar to humans, the juvenile stage of life presents problems of malocclusion (improper alignment of the teeth) or abnormal development of teeth. If caught early, these problems can often be corrected; this will prevent problems later in life. In some instances, braces may be prescribed, just as for humans.

Another problem associated with the juvenile horse is the retention of deciduous (baby) teeth. Retention of deciduous teeth can cause early wear to the opposing teeth and can also be a painful process as these deciduous teeth loosen. These teeth have very sharp edges that can puncture the surrounding gingival tissue. During this time of their life, juvenile horses are beginning training and learning to accept the bit. If their mouth is painful from these retained caps, they will be reluctant to accept the bit. This important phase of their training will then be a negative and painful experience for them.

The next period of the horse's life is that of an adult horse in the age range of 5-20 years. During this period, the horse's permanent teeth are set and with proper care as a juvenile, the teeth should be functioning as a strong unit. As previously discussed, the developing teeth are under continual stress and wear. Typical wear patterns of these teeth that we manage include the formation of sharp enamel points on the cheek side of the upper cheek teeth and on the tongue side of the lower cheek teeth. These points can cause ulceration and laceration to the mucosa of the cheeks and tongue, making it painful for the horse to eat. Another point of normal wear results in the formation of sharp hooks on the cheek teeth associated with the bit and in the back of the mouth. These particular wear patterns, referred to as rostral and caudal hooks, can cause the horse to throw their head in response to pressure from the bit and reduce their athletic potential. These abnormalities are simple to correct with regular maintenance.

Patterns not related to normal wear include types of malocclusions (mis-aligned teeth) or abnormal tooth wear down. Malocclusions can result in early wear down of teeth and predispose horses to periodontal issues (disease of the tissue surrounding the tooth) such as a diastama,

which is a widened space between teeth where feed can become trapped. Malocclusions can also result in endodontal disease (disease of the tooth itself), such as a cavity, which is degeneration of the tooth itself. Both periodontal and endodontal disease, if caught early, can in many instances be treated. However, if such conditions are allowed to persist, they can require tooth removal.

The last stage of the horse is the geriatric period; over the age of 20 years. At this point in the horse's life, the finite amount of tooth they have is no longer undergoing significant eruption, that is the tooth the horse has had for its entire life has worn down to the point there is no more reserve tooth to drop down into wear with the opposing tooth. The importance of early and continuous dental care becomes very evident during this stage of the horse's life, as abnormalities not addressed early often result in problems that may no longer be correctable. In either case, the goal in the care of the geriatric horse is to maintain comfort to help prevent problems such as weight loss, choke, and colic. Frequently during this stage, teeth wear out, diminishing a horse's ability to digest forage. These horses may require a mash diet to allow them to meet their metabolic demands. Such mash diets reduce the natural rhythmic chewing cycle of the mouth and can result in exaggerated sharp enamel points and ulcerations to the cheeks. These horses may require oral exams and dental floats every 6 months to keep them comfortable.

In summary, the condition of a horses' mouth influences their overall health. Each horse has a finite amount of tooth that must serve the horse throughout its life, but needs regular maintenance. By closely monitoring the horse's teeth, early abnormal changes can be caught and in several instances corrected without requiring removal of the tooth. The loss of teeth can pose major challenges later during the geriatric stage of their life when every tooth is important in maintaining their body condition through proper digestion of feed. Several treatment options are available to treat more advanced diseases such as cavities in order to save diseased teeth; we would be happy to discuss these options with you if they arise.