

Geriatric horse care: Dental care

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While the relationships between humans and their domestic pets are varied and complex, the connection between horse and owner is unique in that it often spans years to decades. While the horse has a prolonged lifespan, often 20 to 30 years, in nature this lifespan is limited by the degenerative changes that accompany advanced age. With advancements in veterinary medicine and the shift of the horse's role in society from beast of burden to a valued companion, more horses are reaching geriatric age (>20 years). To promote healthy longevity, early recognition and treatment of the special needs of geriatric horses are important tasks for both you and your veterinarian. There are three major components to caring for the geriatric horse: dental care, management of osteoarthritis, and management of pars pituitary intermedia dysfunction (PPID). This article will cover geriatric horse dental care in detail.

Most horse owners understand that adult horses have premolars and molars ("cheek teeth") that continuously erupt over their lifetime. However, the entire adult premolar/molar is fully formed within the bones of the jaw (maxilla and mandible) and only a portion of the tooth is visible (picture an iceberg). This un-erupted tooth is called the "reserve crown" and may be up to 4 inches long. Starting in their late teenage years/early 20's, a horse may start to run out of reserve crown on any given tooth. This tooth may be called "expired" to signify that the horse has not lost the tooth but it has simply run out of reserve crown.

Aside from the natural expiration of teeth, geriatric horses are also prone to dental disease that can result in teeth falling out or being extracted by a veterinarian. Because each set of premolars and molars erupts at a different age, they also expire at different ages. These can lead to gaps between teeth (diastemas) and teeth of varying heights ("wave mouth") which causes abnormal chewing patterns and uneven wear on the teeth. These variations in dentition, combined with the rough nature of forage and the natural bacterial population of the mouth, can lead to secondary infections of the teeth below the gum line, at the tooth root. Bacterial tooth root infections typically result in loose, and/or fractured teeth. If the tooth is an upper molar, the infection may also spread in to the maxillary sinus and cause a secondary bacterial sinusitis. While dental infections rarely lead to systemic disease, dental abnormalities or tooth root infections often result in ineffective or painful chewing which results in decreased feed intake, weight loss, and increased risk of esophageal obstruction ("choke").

Key facts for dental care of your geriatric horse include signs of dental disease, oral examinations, dental floating (occlusal equilibration), and nutrition. Signs of equine dental disease include dropping feed, malodorous or bad breath, nasal discharge, and/or weight loss. If these signs are observed, schedule an oral exam as soon as possible as these may be signs of dental disease. Geriatric horses should have an oral exam every 6 months. A sedated oral exam using an oral speculum should be utilized at least once a year as it is the only way to properly evaluate for fractured or loose teeth, especially molars. Prior to being a teenager, your horse may only need their teeth floated every 1 to 2 years. While they may be "routine" floats, establishing a preventative dental care program will help your horse transition in to old age.

A dental float should be performed by a veterinarian at least once a year once horses reach geriatric age. This is the best way to identify dental abnormalities prior to the development of secondary complications. Only a veterinarian should be used for dental care, as only a

veterinarian is trained to (and legally allowed to) appropriately sedate your horse and properly diagnose and treat disease.

The more missing or expired teeth a horse has, the more difficult it will be for the horse to sustain their body weight on hay alone. The development of complete pelleted feeds have revolutionized our ability to maintain geriatric horses that cannot get what they need from hay alone. Your veterinarian may recommend that a complete pelleted feed be your horse's primary diet, with or without supplemental hay. Your veterinarian may recommend a fat supplement to provide additional calories if your horse still has difficulty maintaining their weight. An equine nutritionist should work with your veterinarian if weight loss becomes an issue for a geriatric horse.

Frequently asked questions about geriatric dental care:

1. Is sedation safe for geriatric horses?
 - Adequate sedation is crucial not only for a high quality float, but also for the safety of your horse and your veterinarian.
 - Sedation in geriatric horses is generally safe, but it can be more difficult to achieve appropriate sedation due to the presence of chronic or painful dental conditions. The procedure may also take longer, which will influence the sedation protocol.
 - One way to ensure that your veterinarian can use the lowest amount of sedation needed to perform their job safely and effectively is to establish routine dental care early in your horse's life. Not only will your horse be more comfortable with the procedure, but since every horse responds to sedative drugs differently, your veterinarian will know what combination of drugs works best for your horse.
2. Won't the speculum hurt my horse's jaw?
 - A prolonged dental procedure can result in stress on the temporo-mandibular joint (TMJ), which is especially common in geriatric horses.
 - To avoid jaw discomfort, your veterinarian should only open the speculum wide enough to get the procedure done safely and effectively.
 - If the procedure is prolonged, your veterinarian may give your horse's jaw a "break" and close the speculum for a short period of time before continuing.
 - If your horse has been previously diagnosed with temporohyoid osteopathy (THO), ensure that your veterinarian knows this information, since additional care will be required when using the oral speculum.
3. Will my horse need pain medication after a dental procedure?
 - There should be no pain or inflammation after a routine dental, so medications are not typically prescribed.
 - If your horse has a prolonged or more invasive dental procedure, such as needing a tooth extraction, your veterinarian may prescribe a short course of a non-steroidal anti-inflammatory drug such as phenylbutazone.

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