

Dental Care of the Older Horse

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Dentistry is an essential and important part of the health care of your horse. This is especially true for the more veteran equine. Your horse's teeth should be examined at least once a year. In some individuals, particularly for those with dental abnormalities, dental work may be required more frequently. As qualified veterinary surgeons we are able to provide sedation, pain relief and local anaesthesia as required during dental work, allowing a more thorough examination and treatment and less pain and stress to your horse. This can also be safer for the horse, veterinary surgeon and the handler.

Why do old horses have specific dental problems?

During the course of evolution, horses' teeth adapted to chew grass and fibre, but in doing so the teeth wear down at a rate of 2 to 3mm per year. This wear is balanced by eruption at an equal rate, until the horse reaches its mid to late twenties, when all of the reserve crown will have erupted. With improving management and veterinary health care our equine friends are now living longer. It is now not unusual to find horses and ponies living into their mid 30's and beyond. This 'wearing' out of dental tissue presents us with a particular challenge to provide dental care and dietary management.

The grinding surface of the equine crown is a complicated arrangement of folds of enamel, dentine and cement. These structures vary in hardness and wear down at different rates (enamel being the hardest); this ensures the surface of the tooth is a rough grinding surface. It is this rough surface that makes the equine tooth so efficient at chewing fibre and grass. With age the crown is lost as it wears out, leaving the root of the tooth in the mouth. The root of the tooth has no central folds of enamel, only a simple rim, the centre is mainly softer dentine and cement (figure 1). This makes the root smooth centrally and therefore, much less efficient at grinding fibre.

The molar and premolar (cheek) teeth are tightly



Figure 1. Worn cheek teeth with little enamel and poor grinding ability



Figure 2. Displaced back tooth with food packing in diastema

packed together so the row of teeth act as a single grinding surface. Equine teeth are narrower at the root and as such, as the horse gets older and teeth erupt gaps start developing between the teeth. These gaps (or diastema) allow food to become trapped between the teeth and can lead to very painful gum disease (periodontal disease) (figure 2). Signs of which include bad breath (halitosis), quidding (dropping food), weight loss and pouching of food in the cheeks. Affected horses are also more likely to develop choke and impaction colic due to poor chewing of fibre.

As teeth wear down towards the root, teeth may become loose and displace into the soft tissues causing ulcers. They can become so loose that they may actually fall out. When a horse has diastema (gaps between the teeth), the periodontal disease can damage the ligament holding the teeth in place, and the loss of teeth may be accelerated. When examining older patients, it is common to identify movement in many or most of the teeth due to the limited root anchoring the tooth in place. Many of these teeth do not require extraction and should only be removed after careful veterinary assessment (figure 3).



Figure 3. Old teeth worn to roots with ulceration

If a tooth falls out there will be a gap in the gum and the tooth opposite this will have no tooth to grind against. Without the normal wear caused by grinding, this tooth will grow tall into the gap. After a few years this tooth may grow into the gum and cause damage.

These problems of wear and gum disease can also affect the incisor (front) teeth (figure). Loss or damage of these front incisors may affect the horse's ability to graze, especially on short grass. Although horses are able to manage without these incisors very well provided their cheek teeth are in reasonable condition and with correct dietary management.

Older horses can be affected by a disease of these incisors that may be related to chronic gum infection. The disease known as Equine Orthodontic Tooth Reabsorption and Hypercementosis (EOTRH) involves a destruction of the tooth enamel and reaction around their roots (figures 4

and 5). The gum around the incisor teeth may be swollen with severe gingivitis and marked tartar formation.

This is a painful disease and may require incisor tooth extraction or antibiotics.



Figure 4. X-ray of EOTRH with destruction of tooth enamel



Figure 5. EOTRH with severe gum disease and loose teeth

Approach and aims of dentistry in old horses

Dentistry in the geriatric equine requires a sympathetic approach and careful management. As a general rule a little work to specific areas is the best approach. Correction of overgrowths such as wavemouth or large hooks may not be appropriate as such reductions are likely to remove areas of teeth that are functioning in grinding fibre.

Work carried out should involve:

- reduction of any sharp enamel points that are likely to cause soft tissue injury/ulcers;
- examination of focal overgrowths and correction only if causing injury or affecting, or likely to affect, the horse's ability to eat;
- assessment of loose teeth and removal only if required;
- examination for the presence of diastema (dental mirror may be required) and appropriate treatment.

Although the amount of dental work required may be relatively minimal, it is essential the older horse or pony has regular and careful dental assessment. The intervals between dental care will depend on the dental health of each patient and you should discuss this with your vet.

Dietary Care

As horses and ponies get older and their teeth become worn down, their ability to chew and eat long fibre, such as hay, will reduce. Many older horses will not eat hay or long fibre at all, or if they do, may not chew it effectively.

This inability to chew long fibre will have a serious effect on older horses, especially over winter when there is no grass or grass of little nutritional value.

Dietary care is essential for these older ponies and must be considered alongside routine dental care.