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## Equine Dentistry

Equine dentistry is an important part of your horse's routine health care. Problems that originate in the horse's mouth can cause a diverse range of detrimental behavioural abnormalities. This is largely because a horse's teeth, unlike in humans, continually erupt throughout the horse's life. Horses that are ridden or driven should have a routine dental examination every 12 months. Some horses will require more frequent examinations, especially in the young horses, old horses, those competing regularly, and those that have been diagnosed with a recurrent dental abnormality.

### Oral Examination

A thorough oral examination is essential to maintaining a healthy mouth and teeth. An oral exam using a dental speculum includes a visual exam, feeling every tooth, and even smelling any trapped forage. A light source and dental mirror allow us to inspect every part of the mouth, including cheeks, tongue, and teeth. Picks and probes allow us to evaluate periodontal pockets or dental cavities.

### More than just Rasping or "Floating" Teeth

Unlike humans and carnivorous animals, equine teeth erupt continuously over approximately 25 years, until there is no tooth left. As the cheek teeth erupt, grinding action causes sharp points to develop on the outside edges of the upper teeth, and on the inside edges of the lower teeth.

For the vast majority of horses, routine care comprises of removing sharp enamel points. Historically, this was performed using hand rasp; however, the modern approach using motorised dental equipment is more effective by allowing us improved access to the entire mouth, and the ability to safely and effectively reduce hooks, waves, and ramps. Correcting these abnormalities can improve the way a horse chews, and can lead to improved comfort and performance when wearing any type of bridle.

### Sedation

Sedation allows a thorough examination and treatment to be performed in a manner that is safe for owner, the veterinarian, and especially for the horse.

At the back of the mouth we commonly find sharp points and ulcers in the cheeks and tongue. To reduce these points adequately requires time. Horses naturally resent the noise and vibration of the procedure and are inclined to move their heads. Having your horse sedated makes dentistry a more relaxing experience for your horse, allows the veterinarian to complete the procedure accurately and effectively, and reduces the risk of trauma to the soft tissues of the mouth. Sedation also makes the process much quicker, which results in your horse's spending less time with his mouth held open. Where ulcers in the cheeks or tongue may cause the horse to react to the dental procedure, the veterinarian can apply local anaesthetic to numb the area.

## **Diastema**

A diastema is an abnormal gaps between horse's teeth. Other than the large gap between the front teeth and the cheek teeth, horses should not have gaps between their teeth. Large gaps are not usually a problem, as the food flushes through naturally. Smaller gaps, however, become impacted with food which rots and causes gum inflammation (gingivitis). This is known as periodontal disease.

Periodontal disease can lead to recession of the gums and spread of infection including to the surrounding bone and tooth roots, resulting in early tooth loss. A diastema with associated with periodontal disease is thought to be one of the most painful conditions of the mouth.

The treatment of a diastema depends greatly on its shape, position, and underlying cause. Some can be widened using a motorised burr to aid the food in flushing through the gap. In others, temporary or permanent packing may be used to fill the gap and prevent food becoming impacted. In some cases, extraction of a tooth may be the best option.

## **Infundibular Caries (Cavities)**

Infundibular caries are cavities that we can identify with a mirror in the enamel of the cheek teeth. Cavities become impacted with food which rots and causes the cavities to become larger. Advanced infundibular caries predisposes the tooth to fractures and to tooth root abscesses.

Unlike human tooth enamel, the enamel of equine teeth extends well below the level of the gums and into the bone of the jaws. There is as yet no evidence that filling cavities in equine teeth is helpful, probably because fillings would be worn away by grinding as the tooth erupts. Instead, we carefully monitor cavities at each dental examination to determine if they are progressing to the stage where extraction is advisable. Many shallow cavities do not seem to progress.

## **Extractions**

Some teeth have such advanced dental disease that they cannot be saved, and the horse would be more comfortable without them. Such teeth must be extracted. Extraction equipment and techniques have advanced greatly in recent years. Many cheek teeth can be extracted orally with the horse standing under sedation.

## **Diagnostic Imaging**

As in human dentistry, we may need advanced imaging to fully evaluate a tooth, as only a small percentage of the tooth is visible in the mouth. Radiographs (X-rays) allow us to evaluate parts of the tooth we can't see in the mouth (the unerupted crown and tooth roots), the sinuses, and the bones of the upper and lower jaws. In some cases, we will refer the horse to the Ontario Veterinary College, University of Guelph for further evaluation using Computed Tomography (CT). This builds a 3D image of the horse's skull and allows detailed evaluation of the hard and soft structures of the teeth, surrounding bone and sinuses.

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## **EOTRH**

Equine odontoclastic tooth resorption and hypercementosis or EOTRH for short is a newly characterised dental condition which tends to affect the incisor teeth (and canines of geldings and stallions – mares rarely have canines). Currently, the cause of this disorder is unknown but may involve a complex autoimmune condition in which the horse’s own immune system attacks the tooth.

EOTRH is characterised by chronic gum inflammation and infection resulting in recession of the gums and exposure of the un-erupted crown. Chronic inflammation leads to resorption of the tooth, compromising the sensitive tissues. In a bid to try and save itself, the tooth produces ever increasing amounts of cementum, a normal component of equine teeth. This “hypercementosis” is the tooth’s last stage before it dies.

Many treatments have been tried for EOTRH, currently, however, extraction of the affected teeth is the only effective treatment when the condition is advanced. Horses suffering from advanced EOTRH often experience considerable pain while eating. After extraction, these horses often eat better and put on weight.

EOTRH horses often have abnormal gaps between the incisors (diastema) which become impacted with forage which can rot and cause gingivitis. It is advised that owners regularly remove any food which becomes trapped with a brush and salty water. This could help reduce the progression of the disease and negate the need for extraction.

## **Equine Dentistry – A Veterinary Procedure**

In Ontario, only a licensed veterinarian may perform floating of teeth or other dental procedures. Veterinarians are the only people qualified to prescribe drugs for sedation and to accurately assess the need for dental procedures, including floating. Equine dentistry is an area of active scientific research. At Central Ontario Veterinary Services, our veterinarians continually update their knowledge of equine dental disorders and procedures by studying recent scientific developments and attending courses and conferences.

Please contact our office on 707-722-3232 or by email to [info@centralontariovet.com](mailto:info@centralontariovet.com) if you have questions about equine dentistry or to arrange a dental appointment for your horses.