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## Dentistry

The teeth of a horse do not actually continually grow, rather they have very long roots and slowly erupt over the course of their life. This type of tooth (long root, slow eruption) is called “hypodont”. Additionally, horses are anisognathic, meaning that their upper jaw (maxilla) is wider than their lower jaw (mandible). Horses have incisors, canines, premolars and molars just as other mammals. The average horse has 12 incisors (six on the top, six on the bottom), 12 premolars (six on the top, six on the bottom) and 12 molars (six on the top and six on the bottom). Geldings often have 4 canines as well. Canines are not typically found in mares. Some horses also may have up to four additional “wolf teeth”. Wolf teeth are actually the first premolar, and are typically removed prior to breaking and first biting.

### Eruption and aging:

Deciduous, or baby, teeth erupt over time, with all baby teeth in place by about 9 months of age. Adult teeth begin erupting at about 9 months of age with the first molar, and by 5 to 6 years old all adult teeth should have erupted.

Aging is based on the physical appearance of teeth. Up to 5 years old, it is fairly easy to accurately age a horse (in years). The incisors erupt in a predictable pattern at predictable times. As a horse ages past 7 years, it becomes increasingly difficult to age a horse. Often, we are only able to age your horse to a range, rather than an exact age. Additionally, horses that wear their teeth excessively—especially horses that grind their teeth, crib and/or rub their teeth on bars may prematurely wear their teeth, making aging more difficult.

### Dental care:

Due to the anisognathic nature of the horse’s mouth, they chew in a figure eight pattern. This results in the formation of sharp enamel points on the cheek side of the upper cheek teeth and the tongue side of the lower cheek teeth. These can cause ulceration of the cheeks and tongue if not treated appropriately.

Treatment of sharp enamel points is called “floating”. Traditionally, this was performed using hand floats or files. Now we use the motorized equipment, called the PowerFloat. In the hands of a skilled practitioner, it allows for more controlled, efficient and safe reduction of the enamel points. All dental work done by the HVA veterinarians is performed with the patient lightly sedated. This is to create a safe experience and minimize the stress of dental work. It allows for placement of the full mouth speculum, facilitating thorough tactile and visual examination of the teeth by the veterinarian. It also allows for the owner to visualize their horse’s teeth as well.

The goals of floating is to reduce the sharp enamel points. Floating should not overly reduce the tooth. In addition to potentially killing the tooth, reduction of the grinding surface results in malocclusion and discomfort of the horse. When too much tooth or any grinding surface is removed, it can take months to years for this to be corrected, and the horse’s mouth may never be the same. Additionally, very rarely we encounter horse’s that have had the front of the mouth floated, but the rear of the mouth still has sharp points. This is often associated with horses that had floating while not sedated. Inexperienced or incorrect floating can result in broken teeth and other damage to the horse’s mouth.



## Common Dental Diseases:

**Retained caps:** retained baby teeth. Require removal for proper eruptions of the adult tooth. Sometimes, horses will pack feed material in between the cap and the adult tooth, creating a place for abscessation and/or infection.

**Hooks & Ramps:** Malocclusion can result in the formation of ramps and hooks. They are typically seen in the upper first cheek teeth and lower last cheek teeth. When the hooks and/or ramps increase in size they further disrupt occlusion, and can eventually make it difficult and painful for the horse to chew appropriately. Treatment involves reduction of the hooks and ramps, which is done over a period of time so as not to damage the tooth and maintain comfort in the horse.

**Abnormal bite planes:** when the alignment of the cheek teeth is abnormal

*Wave mouth:* the most common abnormal bite plane we see. The teeth develops a characteristic wave. Depending on the severity other changes maybe seen and treatment may or may not be warranted.

*Step mouth:* most commonly due to broken and/or missing teeth. This results in excess eruption of the opposing tooth, causing a high tooth to develop. Without reduction of the taller tooth, the bite is disrupted and it is more difficult, even painful to chew.

**Malocclusions:** when the teeth do not line up appropriate—examples include over bites and under bites but this is as varied as it is for people. Some are correctable, some not and most require very routine, sometimes more frequent, attention to allow the best occlusions possible and prevention of further problems.

**Tooth root abscesses:** these can occur with broken teeth, lost teeth or tooth death. Due to the fact that the cheek teeth roots extend into the sinuses, abscessation can result in nasal discharge, foul smelling breath (nose or mouth), in addition to the expected difficulties chewing (not always noted). Treatment involves removal of the remaining tooth and root, which sometimes requires surgery. Antibiotics can help, but will not solve the underlying problem and the drainage and smell will come back once the antibiotics are stopped.

Recognizing dental problems: there are common signs associated that you should monitor for

- Dropping feed—hay (also known as quidding) or grain
- Malodorous (bad smelling) breath from the mouth or nose
- Unable to maintain weight
- Whole feed particles or hay in manure
- Issues with biting, bridling and/or riding
- Purulent nasal discharge
- Swelling of the face or cheeks

We also recommend routine monitoring by your veterinarian. We typically check your horse's teeth at least once to twice yearly, and most commonly do this at the vaccine appointment. At this time we can make recommendations for further dental attentions.

Remember: routine monitoring or maintenance of your horse's teeth is as important to their health as taking care of your teeth is to yours. Floating is only to remove the sharp enamel points on the outsides of the teeth. Grinding surface should never be removed from a normal horse. There are many common dental conditions that may not cause overt signs of distress, but correction will make your horse more comfortable. Finally, just as you monitor manure production and the attitude of your horse, monitoring appetite and ability to eat is important.