

Equine Medicine and Surgery

Henry Greenwald, DVM

Raising the Standard in Horse Health

(425) 222-7555 (206) 264-5152

Dental Care - The Importance of Maintaining the Health of Your Horse's Mouth

Routine preventative dental examinations and maintenance insure a healthier more comfortable horse. Horses with a well balanced mouth can use their feed efficiently and may perform better.

The Horse's Mouth

Horses evolved as grazing animals and their teeth are well adapted for that purpose. The sensitive upper and lower lips touch, select, and grasp the food. During grazing the incisors (front central teeth) sever the grass. Once the food enters the mouth, the horse's tongue, palate ridges and teeth work together to chew and move the food bolus to the back of the mouth. The cheek teeth (molars and premolars) with their wide, flat, rough surfaces, grind the feed into a mash before it is swallowed. This occurs by moving the mandible, (jaw), in a sideways elliptical chewing movement, not up and down.

Like humans, horses get two sets of teeth in their lifetime. The first primary incisors may erupt before birth. The last baby teeth come in when the horse is about 8 months of age. These teeth begin to be replaced by adult teeth around age 2 ½. By age 5, most horses have their full complement of permanent teeth. An adult male horse usually erupts 40 - 44 permanent teeth. A mare may have between 36-40, because mares are less likely to have canine (bridle) teeth.

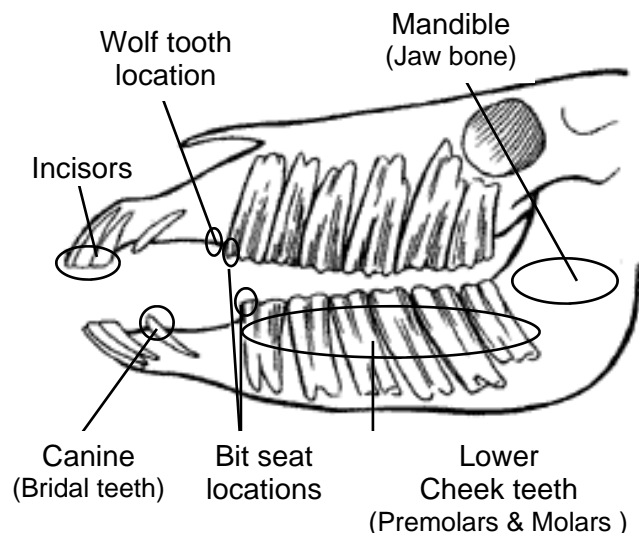
Floating & Healthy Maintenance

The process of grinding and filing a horse's teeth is know as floating or dressing. This is the most common dental procedure veterinarians perform on horses. Floating removes sharp points and can create a more even bite plane. It also helps keep incisors and cheek teeth at a desirable length. Sedation, local anesthetics and analgesics can relax the horse and keep it more comfortable during floating and other dental procedures.

Canine teeth, used for fighting, are generally present in mature geldings, stallions and some mares. They are usually cut off and filed smooth to prevent interference with the bit. This also reduces the possibility of injury to both horse and human.

Wolf teeth are small teeth located in front of the second premolar. They rarely appear in the lower jaw. A horse may have 0 - 4 wolf teeth. While not all wolf teeth are troublesome, they are routinely removed to prevent pain or bit interference. Occasionally, unerupted (blind) wolf teeth cause problems and must be removed.

Bit seat (power steering) describes the rounding of the 1st cheek teeth. This limits the horse's ability to grab the bit or catch tissue between the bit and teeth.



Adult horse's teeth erupt throughout their life. When turned out on pasture, horses graze almost continuously. The silicates in the grass and tooth against tooth abrasion, wear down the teeth. Stabled horses may not give their teeth the same workout. Feedings are intermittent, not continuous, and often include processed feed and hays. Softer feeds require less chewing. This may allow the horse's teeth to become excessively long or to wear unevenly.

Unfortunately, cheek teeth tend to develop sharp points even under normal grazing conditions. Because the horses' lower jaw is narrower than its upper jaw and the horse grinds its feed with a sideways motion, sharp points tend to form along the edges. Points form on the cheek side of the upper teeth and the tongue side of the lower teeth. These points should be removed to prevent injuring the cheeks and tongue.

Floating is especially important in horses who have lost a tooth, or whose teeth are in poor apposition and do not fit together well. Normal contact with the opposing tooth keeps biting surfaces equal. When cheek teeth are out of alignment, hooks can form. If left unchecked, these hooks can become long enough to penetrate the opposing gums or palate.

Age Factor

The age of a horse affects the degree of attention and frequency of dental care. Primary teeth tend to be softer than permanent teeth and therefore develop sharp points more quickly. Youngsters usually need floating to prevent damage to cheek and tongue tissues. It is important to understand a young horse's teething discomfort. The last large cheek tooth erupts at 4 years of age - between two other large teeth.

Knowing eruption times will help you understand unusual behaviors and training problems. Young athletic horses are trained and introduced to the bit during their mouth's most active time. Horses between 2 and 5 years old should be examined twice yearly, and any necessary procedures performed. There is an extraordinary amount of dental maturation during this period. Twenty-four teeth will be shed and replaced and 12 to 16 additional teeth will be erupting. Potentially, 12 to 16 teeth may erupt simultaneously.

Maintaining an even bite plane during a horse's entire life helps to ensure a level grinding surface into its 20's and 30's. Waiting too long usually increases the difficulty and expense of dental procedures. Depending on the condition of your horse's teeth, more than one visit may be required to get a mouth into better working order. Inadequate dental care may severely impact your horse's health and longevity. Excessive uneven wear may make alignment impossible.

Caps are the primary cheek teeth that are pushed out by the emerging adult teeth. They may need to be removed if they have not been shed. After the caps have been shed the adult tooth will be in wear and sharp in 3 – 6 months.

Primary (Baby / Deciduous Teeth) Eruption Times

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| • 1 st incisors | (centrals) | Birth or 1st week |
| • 2 nd incisors | (intermediates) | 4-6 weeks |
| • 3 rd incisors | (corners) | 6-9 months |
| • 2 nd , 3 rd & 4 th premolars | (cheek teeth) | Birth or first 2 weeks for all premolars |

Permanent (Adult teeth) Eruption times

• 1 st incisors	(centrals)	2 ½ years
• 2 nd incisors	(intermediates)	3 ½ years
• 3 rd incisors	(corners)	4 ½ years
• Canines	(bridle)	4-5 years
• 1 st premolar	(Wolf teeth)	5-6 months
• 2 nd premolars	(1 st cheek teeth)	2 ½ years
• 3 rd premolars	(2 nd cheek teeth)	3 years
• 4 th premolars	(3 rd cheek teeth)	4 years
• 1 st molars	(4 th cheek teeth)	9-12 months
• 2 nd molars	(5 th cheek teeth)	2 years
• 3 rd molars	(6 th cheek teeth)	3 ½ -4 years

Common Dental Problems

Horses may suffer from many dental problems. The most common include:

- Sharp points on cheek teeth cause lacerations, ulcers, & erosions of cheeks and tongue
- Retained caps (primary cheek teeth that are not shed) may cause uneven wear patterns
- Wolf teeth may cause discomfort by bit contact or just being loose
- Hooks form on the upper and lower cheek teeth from poor alignment of dental arcades
- Hooks on corner Incisors limit front to back travel of the jaw
- Long and/or sharp canine (bridle) teeth interfere with tongue movement and bit insertion
- Lost and/or broken teeth
- Abnormal or uneven bite planes
- Excessively worn teeth or abnormally long teeth
- Infected teeth and/or periodontal (gum) disease
- Misalignment / poor appositions (can be due to congenital defects or injury)

Recognizing Dental Problems

Horse with dental problems may or may not show obvious signs. Many horses simply adapt to dental abnormalities because of their gradual onset.

Indicators of dental problems include:

- Loss of feed from mouth while eating, difficulty with chewing, or excessive salivation
- Loss of body condition – not a common sign
- Large or undigested feed in manure - fiber length should be less than 3/8"
- Head tilting or tossing, bit chewing, tongue lolling, fighting the bit, or resisting bridling
- Poor performance, such as lugging on the bridle, failing to turn or stop, even bucking
- Foul odor or discharge from mouth or nostrils, or traces of blood from the mouth
- Heat, pain or swelling of the face, jaw, or mouth tissues
- Quidding – holding a bolus of feed between the teeth and cheek

Developing a Greater Awareness

If a horse starts behaving abnormally, dental problems should be considered as a potential cause. It is important to catch dental problems early. Serious dental conditions can develop, such as infections of the teeth and gums, long hooks on the cheek teeth, lost or fractured teeth. Loose teeth are generally unhealthy teeth and may need to be extracted to reduce chance of infection or additional problems. These conditions may require surgical treatment and/or extraction. I will work with you to understand your treatment options.