



**American Association
of Equine Practitioners**

Horse Health Education

DENTAL CARE

**The Importance of Maintaining
the Health of Your Horse's Mouth**

The AAEP horse health presentations are endorsed by the AAEP in its original format.
The AAEP prohibits editing or personalizing them in any way.

www.aaep.org/horseowner



HORSE HEALTH EDUCATION: DENTAL



OVERVIEW

Routine dental care is essential to your horse's health. Periodic exams, corrections and regular maintenance are especially necessary for a number of reasons.



HORSE HEALTH EDUCATION: DENTAL

OVERVIEW



- We have modified the horse's diet and eating pattern through domestication and confinement.
- We demand more from our performance horses beginning at a younger age.
- We often select breeding animals without regard to dental considerations.



HORSE HEALTH EDUCATION: DENTAL

OVERVIEW

Proper dental care has its rewards. Your horse will be more comfortable, utilize feed more efficiently and may perform better and even live longer.



HORSE HEALTH EDUCATION: DENTAL

THE HORSE'S MOUTH

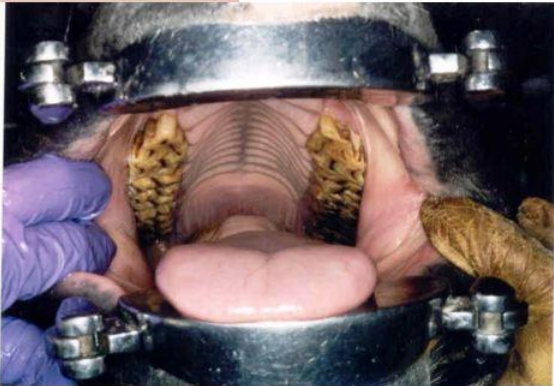


- Horses are grazing animals and their teeth are perfectly adapted for that purpose. The front teeth (incisors) function to tear off forage.



HORSE HEALTH EDUCATION: DENTAL

THE HORSE'S MOUTH



- The cheek teeth (molars and premolars), with their wide, flat, grveled surfaces, easily grind the feed to a mash before swallowing.



HORSE HEALTH EDUCATION: DENTAL

THE HORSE'S MOUTH



10-day-old foal

Horses get two sets of teeth in their lifetime. The baby teeth (deciduous teeth) are temporary.

The first deciduous incisors may erupt before the foal is born.



HORSE HEALTH EDUCATION: DENTAL

THE HORSE'S MOUTH



10-month-old foal



2-year-old

The last deciduous teeth come in when the horse is about 8 months of age. Only the incisors and the first three cheek teeth have deciduous precursors to the permanent ones. These teeth begin to be replaced by adult teeth around age 2 1/2.



HORSE HEALTH EDUCATION: DENTAL

THE HORSE'S MOUTH



5-year-old

- By age 5 most horses have their full complement of permanent teeth.
- An adult male has 40 permanent teeth.
- An adult female may have 36 - 40 teeth since mares are less likely to have canine (bridle) teeth.



HORSE HEALTH EDUCATION: DENTAL

THE HORSE'S MOUTH



Erupted tooth

Keep in mind that there can be significant variations in when teeth erupt in individuals and breeds.



HORSE HEALTH EDUCATION: DENTAL

THE HORSE'S MOUTH

Deciduous (Baby Teeth)

1st incisors (centrals)

Birth to first week

2nd incisors (intermediates)

4 - 6 weeks

3rd incisors (corners)

6 - 9 months

1st, 2nd & 3rd premolars
(cheek teeth)

Birth to first 2 weeks
for all premolars

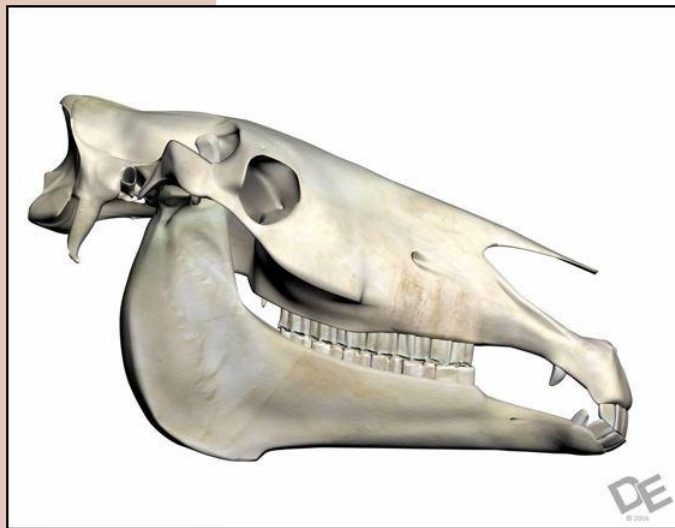


10-month-old



HORSE HEALTH EDUCATION: DENTAL

THE HORSE'S MOUTH



Permanent (Adult Teeth)

1 st incisors (centrals)	2 1/2 years
2 nd incisors (intermediates)	3 1/2 years
3 rd incisors (corners)	4 1/2 years
Canines (bridle)	4 to 5 years



HORSE HEALTH EDUCATION: DENTAL

THE HORSE'S MOUTH

Permanent (Adult Teeth)

Wolf teeth (1 st premolars)	5 to 6 months
2 nd premolars (1 st cheek teeth)	2 1/2 years
3 rd premolars (2 nd cheek teeth)	3 years
4 th premolars (3 rd cheek teeth)	4 years



HORSE HEALTH EDUCATION: DENTAL

THE HORSE'S MOUTH

Permanent (Adult Teeth)

1 st molars (4 th cheek teeth)	9 to 12 months
2 nd molars (5 th cheek teeth)	2 years
3 rd molars (6 th cheek teeth)	3 1/2 to 4 years



HORSE HEALTH EDUCATION: DENTAL

COMMON DENTAL PROBLEMS



The most common dental problems include:

- Sharp enamel points forming on the cheek teeth, causing lacerations of the cheek and tongue
- Retained caps (deciduous teeth that are not shed)
- Discomfort caused by bit contact with the wolf teeth



HORSE HEALTH EDUCATION: DENTAL

COMMON DENTAL PROBLEMS



- Hooks forming on the upper and lower cheek teeth
- Long and/or sharp canine (bridle) teeth interfering with the insertion or removal of the bit
- Lost and/or broken teeth
- Abnormal or uneven bite planes (wave mouth or step mouth)



HORSE HEALTH EDUCATION: DENTAL

COMMON DENTAL PROBLEMS

- Excessively worn teeth
- Abnormally long teeth
- Infected teeth and/or gums
- Misaligned/poor apposition (bite) – can be due to congenital defects or injury
- Periodontal (gum) disease



HORSE HEALTH EDUCATION: DENTAL

RECOGNIZING DENTAL PROBLEMS

Horses with dental problems may show obvious signs such as pain and irritation. However, they may show no noticeable signs at all.

This is due to the fact that some horses simply adapt to their discomfort.



HORSE HEALTH EDUCATION: DENTAL

RECOGNIZING DENTAL PROBLEMS

Indications of dental problems may include:



- Loss of feed from the mouth while eating, difficulty with chewing or excessive salivation
- Loss of body condition
- Large or undigested feed particles (long stems or whole grain) in manure
- Accumulation of balls of forage between the cheek teeth and cheek.



HORSE HEALTH EDUCATION: DENTAL

RECOGNIZING DENTAL PROBLEMS



- 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 or even bucking



HORSE HEALTH EDUCATION: DENTAL

RECOGNIZING DENTAL PROBLEMS

- Foul odor from mouth or nostrils or traces of blood from the mouth
- Nasal discharge or swelling of the face, jaw or mouth tissues

Note: There may be no clinical sign/indication with initial dental disease.



HORSE HEALTH EDUCATION: DENTAL

PREVENTATIVE MAINTENANCE

An oral exam should be an essential part of an annual examination by a veterinarian.

Every dental exam provides the opportunity to perform routine preventative dental maintenance.

The end result is a healthier, more comfortable horse.



HORSE HEALTH EDUCATION: DENTAL

PREVENTATIVE MAINTENANCE



Floating removes the sharp enamel points and can help create a more even bite plane.

Occlusal equilibration is the term now used to describe smoothing enamel points, correcting malocclusion, balancing the dental arcades and correcting other dental problems.



Hand tools or power floats are certainly acceptable depending upon your horse's current dental health. A complete oral exam should precede any dental procedures.



HORSE HEALTH EDUCATION: DENTAL

PREVENTATIVE MAINTENANCE



Because the horse grazes almost continuously, picking up dirt and grit in the process, this, along with silicate in grass, wears down the teeth.



HORSE HEALTH EDUCATION: DENTAL

PREVENTATIVE MAINTENANCE



Stabled horses may not give their teeth the same workout. Feedings are more apt to be scheduled and include processed grains and hays.

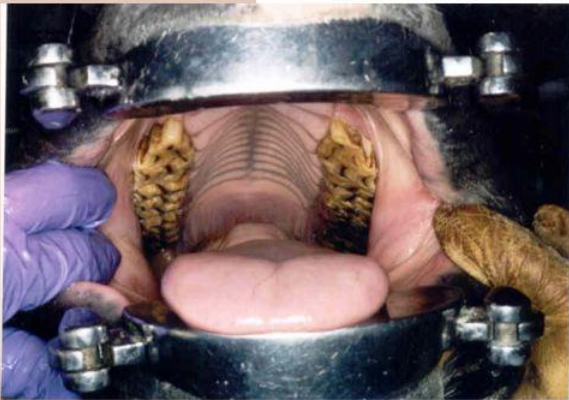
Softer feeds require less chewing. This may allow the horse's teeth to become long or wear unevenly.

Adult teeth erupt throughout life and are worn down by chewing.



HORSE HEALTH EDUCATION: DENTAL

PREVENTATIVE MAINTENANCE



Because the horse's lower rows of cheek teeth are closer together than the upper rows of cheek teeth and the horse chews with a sideways motion, sharp points form along the outer edges of the upper cheek teeth and the inner edges of the lower cheek teeth.

These points should be smoothed to prevent damage and ulceration of the cheeks and tongue.



HORSE HEALTH EDUCATION: DENTAL

PREVENTATIVE MAINTENANCE



When cheek teeth are out of alignment, hooks or other malocclusions may develop. Left untreated, these hooks can become long enough to penetrate the hard or soft palate. Other malocclusions may lead to interference with mastication or lead to periodontal disease.

Small hooks or other malocclusions may be corrected with hand instruments.



HORSE HEALTH EDUCATION: DENTAL

PREVENTATIVE MAINTENANCE



Tall malocclusions may be corrected with motorized instruments, but may require several treatments spread over 12 to 18 months.

Motorized instruments have replaced molar cutters and chisels since there is less chance of tooth damage.



HORSE HEALTH EDUCATION: DENTAL

WOLF TEETH

Wolf teeth are very small teeth located in the front of the second premolar.

A horse may have one to four or no wolf teeth.

Note: Wolf teeth should not be confused with the canine (bridle) teeth.



HORSE HEALTH EDUCATION: DENTAL

WOLF TEETH



While not all wolf teeth are troublesome, they are routinely removed to prevent pain or interference with the bit.



HORSE HEALTH EDUCATION: DENTAL

THE AGE FACTOR



The age of a horse affects the degree of attention and frequency of dental care required.

- Foals should be examined shortly after birth and periodically during the first year to diagnose and correct congenital dental abnormalities (existing from birth).
- Yearlings have been found to have enamel points sharp enough to damage cheek and tongue tissue. Floating will make them more comfortable.



HORSE HEALTH EDUCATION: DENTAL

THE AGE FACTOR

- Horses going into training for the first time, especially 2- and 3-year-olds, need a comprehensive oral examination. Teeth should be floated to remove any sharp points and checked for retained caps. Caps should be removed as is appropriate.





HORSE HEALTH EDUCATION: DENTAL

THE AGE FACTOR

- Horses 2 to 5 years old may require more frequent dental exams than older horses. Deciduous teeth tend to be softer than permanent teeth and may develop sharp enamel points more quickly.
- Twenty-four deciduous teeth will be shed and replaced by 36 to 40 adult teeth, with the potential for 12 to 16 teeth to erupt simultaneously. Horses in this age group may need to be examined twice yearly, and any necessary procedures should be performed.



HORSE HEALTH EDUCATION: DENTAL



THE AGE FACTOR

- Mature horses should be examined at least once a year to maintain correct dental alignment and to diagnose dental problems as early as possible.
- Senior horses (17+) are at a greater risk for developing periodontal disease. It is important to maintain an even bite plane during a horse's teens in order to ensure a functional grinding surface beyond 20+ years.



HORSE HEALTH EDUCATION: DENTAL



THE AGE FACTOR

- Beyond the age of 20, tooth surfaces may be worn excessively and/or unevenly and dental alignment correction may be impossible.
- Horses 20+ years should receive dental evaluation and nutrition counseling at least annually in order to maintain their conditioning and quality of life.
- With proper and routine dental care, many horses will maintain functional dentition into their third and fourth decades of life.



20-year-old



HORSE HEALTH EDUCATION: DENTAL

DEVELOPING GREATER AWARENESS

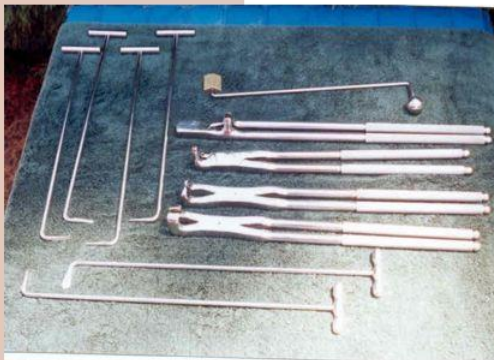


- If a horse starts behaving abnormally, dental problems should be considered as a potential cause.
- Abnormalities should be corrected and teeth should be floated and maintained as indicated.



HORSE HEALTH EDUCATION: DENTAL

DEVELOPING GREATER AWARENESS



- Wolf teeth are routinely extracted from performance horses to prevent interference with the bit and its associated pain.
- Sedatives, local anesthetics and analgesics relax the horse and keep it more comfortable during floating and other dental procedures. *Such drugs should be administered by a veterinarian.*
- If a loose tooth is found, extraction may be the best alternative. This may reduce the chance of infection or other problems.



HORSE HEALTH EDUCATION: DENTAL

DEVELOPING GREATER AWARENESS



- Canine teeth may be slightly smoothed to prevent injury to the horse's tongue and to hands. Canine teeth should not be cut off and rounded or the enamel penetrated as this can cause a pulp infection.
- Depending on the condition of the horse's teeth, more than one visit may be required to get the mouth in prime working order.



HORSE HEALTH EDUCATION: DENTAL

DEVELOPING GREATER AWARENESS



- As in humans, regular oral examinations will detect dental disease sooner and improve treatment success.
- Most equine dental procedures irreversibly change the horse's teeth and therefore are most appropriately performed by a veterinarian.



HORSE HEALTH EDUCATION: DENTAL

Photos courtesy of

Eric Devos, DVM • www.equineU.com

Amy Grice, VMD


Rhinebeck Equine, LLP • Rhinebeck, New York

Leroy Hoversland, DVM • Ronan, Montana

Duncan Peters, DVM • Lexington, Kentucky

**Larry Wadsworth &
Texas A & M University,
College of Veterinary Medicine**

**B.A. Rucker, DVM
Lebanon, Virginia**



Equine Photography by Lourie Zipf

www.louriezipf.com
louzieann@aol.com

- *specializing in equine portraits and sports images*
- *also available for editorial work*

Loveland, CO
970.663.4322



HORSE HEALTH EDUCATION: DENTAL

The AAEP would like to thank our partners for their support of the AAEP's Owner Education Programs.



Boehringer
Ingelheim

LUITPOLD
ANIMAL HEALTH

IDEXX
LABORATORIES



MERCK
Animal Health



NUTRAMAX[®]
LABORATORIES, INC.



Nutrena[™]

PLATINUM
PERFORMANCE[®]
Where good nutrition meets good medicine™



PURINA[®]

zoetis[™]

the **HORSE**
YOUR GUIDE TO EQUINE HEALTH CARE

EQUUS

www.aaep.org/horseowner



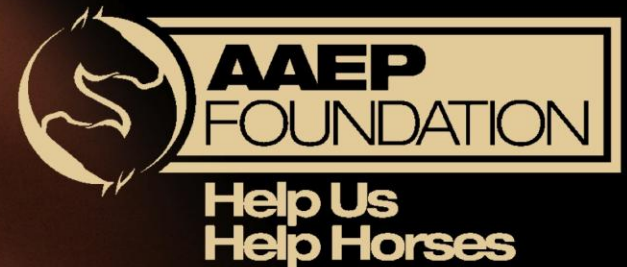
MAKE AN IMPACT ON THE WELFARE OF HORSES EVERYWHERE

Join your veterinarian in support of the AAEP Foundation to Help Us Help Horses.

The AAEP Foundation's mission is to improve the health and welfare of the horse through the support of:

- Equine Research
- Education
- Benevolence
- The Equine Community

To make a donation or learn more about the AAEP Foundation, visit www.aaepfoundation.org





For more horse health information,
visit our Web site:

www.aaep.org/horseowner