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The Equine Report

EQUINE DENTISTRY

The practice of equine dentistry is a significant part of a horse's health maintenance program. Commonly known as "floating," dentistry is essential for a good health and performance. Horses young and old benefit from routine, professional dental care to maintain overall health, improve feed efficiency and reduce the incidence of colic.

Equine teeth continue to erupt throughout the animal's lifetime. They continue to grow as they wear due to grazing. They are known as hypsodont teeth. Normal wear can create problems as the upper and lower arcades, or rows of teeth, wear against each other during the process of chewing.

The average adult mare has 36 teeth and the average stallion/gelding can have up to 40. The anatomy of a horse's mouth is designed to graze almost continuously. Their front teeth, or incisors, are designed to shear grass and to control how much the molars engage. Behind the front six incisors is an empty space at the bars of the mouth where canines can be found in males and rarely in females. These are the canines, or fighting teeth, not to be confused with wolf teeth that are remnants of the first premolars. Wolf teeth are routinely removed during early dental exams to prevent discomfort with the bit during training; they are commonly found in males and sometimes in females. They are located just in front of the premolars on the upper arcades and may also rarely be found in the lower arcades.

The premolars and molars, known as the cheek teeth, are aligned as a flat, wide, rigid surface to grind feed particles. They are positioned to allow the horse to have a table-like surface to breakdown hay particles in a side to side and front to back chewing motion. As these teeth grind against each other and because the horse's lower jaw (mandible) is narrower than the upper jaw (maxilla) they tend to create sharp enamel points on the edges of the teeth. The upper jaw creates points on the outer edges while the lower jaw creates points on the inner edges. Depending on the alignment of the jaws, larger hooks can also develop on the front or back molars. These points and hooks interrupt the proper movement of the

molar arcades and cause significant damage to the horse's cheeks and/or tongue that causes pain, decreases performance and alters the horse's normal chewing motion. This leads to further tooth damage and misalignment, over-wearing and subsequent decay and death of the tooth. Once permanent damage is caused or teeth are lost, the opposing tooth will overgrow having nothing to wear against. This causes a vicious cycle that requires routine dental work to maintain good dental health.

Horses have two sets of teeth in their lifetime: deciduous, or baby teeth, and permanent teeth. Foals are either born with their first sets of incisors or they erupt within the first week of life. As the foal grows, deciduous teeth erupt until about 8 months of age when all of the baby teeth have come in. These will start to be replaced by permanent incisors at about 2 ½ years of age. Deciduous premolars, also



known as "caps," are shed and replaced by permanent premolars between 2 ½ and 4 ½ years of age. By five years of age, most horses will have their full set of adult teeth. During this period, their mouths are dynamic, changing rapidly. The teeth also have not fully hardened allowing for excessive wear that can lead to permanent problems if not carefully monitored. As horses mature and their teeth harden, a full mouth will settle and any conformational problems can be addressed and correction attempted to achieve the best possible adult mouth. Horses in their late teens and early twenties start to experience excessive wear and expired teeth that can lead to overgrowth, gingivitis and tooth decay.

While the process of tooth eruption and wear can be used to get a rough estimate of age, this practice is widely considered inaccurate. The variation in eruption times and the even wider range in wear patterns allows for too much variation to accurately age the animal. Techniques exist utilizing incisor surface wear pattern and shape, but all techniques will provide, at best, an estimate of a horse's age and should never be considered an exact science.

Most dental problems begin with no obvious external signs and develop gradually over time. A slight resistance to the bit or subtle decrease in performance may be all that an experienced rider will notice indicating some discomfort in the horse's mouth. Most horse owners assume that if the horse is still eating or maintaining its weight there is no problem with his/her teeth. In cases of severe dental disease, the owner may report that the horse is having problems eating, dropping feed, quidding or hyper-salivating. There may also be noticeable bad breath, significant weight loss, colic and choke.

When routine dentistry is performed as part of a maintenance program most horses will only develop mild to moderate points that can easily be corrected with a conservative amount of work. The process requires sedation and a full mouth speculum to open the mouth and evaluate every tooth and identify any abnormalities. Hand tools that "float" over the enamel points have been replaced by motorized equipment that is carefully manipulated to correct abnormalities. In experienced hands, these tools are used effectively and efficiently with significantly less trauma to the patient.

In the state of Oregon, the practice of equine dentistry is considered part of veterinary medicine and can only be performed by a licensed equine veterinarian. Veterinarians go through additional training and continuing education to perfect techniques and use the knowledge to correct any medical problems, dental or otherwise, that may arise during the process.

Most horses should have a thorough dental exam at least once a year starting as yearlings or just before they begin training. Routine exams are essential to correct any abnormalities and prevent more permanent dental disease that can affect performance and overall health.

Mare Care Stallion Evaluation Lameness Surgery Chiropractic Advanced Dentistry

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**LET'S CELEBRATE
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All routine dental procedures
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EAGLE FERN EQUINE HOSPITAL
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Clinic Hours:
Monday-Friday 8:00 AM — 6:00 PM
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24 hour emergency service
7 days a week.
After hours call (503) 721-4384.



VITAMIN E AND SELENIUM

Oregon is a Vitamin E and Selenium deficient state. These two are really important for muscle health and proper function due to their antioxidant properties. Deficiencies can be fatal. Many horses in this area are deficient, but don't show clinical signs until levels are critically low. Vit. E and Se levels can be evaluated on a blood sample. To prevent muscle damage it is critical to supplement Vit. E and Se daily. The recommended daily intake of Vit. E is 1.5-4.4 mg/kg of natural Vit. E. Daily intake of Se should be 1mg per day. It's preferred to feed a constant daily level, rather than Vit. E and Se injections. Multiple supplements can be found in your local feed store that are formulated for our Vit. E and Se deficient area, like Northwest Equine Supplements. Consult with your veterinarian to determine if your supplements are adequate in Vit. E and Se or if your horses should be tested to prevent a deficiency.

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