

NORTHWEST EQUINE VETERINARY ASSOCIATES, INC., P.S.

18403 S.E. 272nd St
Kent, Washington 98042

Phone: 253-639-2909 or 360-825-0746

Fax: 253-639-0449

Email: nw-equine@msn.com

Just a heads up that we will be relocating our office soon to the Maple Valley/Hobart area. We will be sure to keep you informed as our move gets closer - hopefully by mid-February/March!

Northwest Equine's Credit/Payment Policy Has Changed

Northwest Equine Veterinary Associates prides itself in offering the highest quality care available to horses today. Each of our trucks is stocked with state of the art medical equipment enabling us to provide you with 24-hour care, seven days a week.

As in any type of business, managing accounts receivable is critical to the success of our practice. **It is with this in mind that we are implementing a new credit/payment policy effective January 1, 2003.** We will be asking for payment at time of service for all routine visits, such as; dentals, vaccines, non-emergency lameness exams and joint therapy, etc. The following payment options are available to you; personal check, cash, money order, Visa, MasterCard, Discover and American Express.

We realize that you may encounter unexpected expenses and emergencies and we will of course work with you to reach a mutually agreeable payment solution or it may be necessary to seek another means of financial assistance if payment in full is not possible. Unfortunately, we simply can no longer afford to carry large outstanding balances on our books as we

have in the past. We hope that you appreciate the services we provide and understand the need for compensation of services rendered in a timely manner.

Our doctors and office staff will gladly provide you with an estimate for any service you may need, even in the event of an emergency.



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Thank you!



The spring and summer months were extremely busy. All too often, despite our best efforts, we were late for an appointment or found it necessary to reschedule appointments all together. The normal caseload along with emergencies, resulted in unavoidable delays. Almost without exception we found you, our clients, understanding and gracious and we thank you. Please feel free to contact our office if you have not heard from the doctor within 30 minutes of your scheduled appointment. We greatly appreciate your patience!

Welcome Dr. Cheryl Lopate...

Dr. Cheryl Lopate joined the staff of Northwest Equine in December of 2002. Prior to veterinary college she received a Masters Degree in Reproductive Physiology. She graduated from The Ohio State University College of Veterinary Medicine in 1991. Following graduation she was employed in a mixed animal practice in rural Minnesota for 4 years. She then returned to the university to pursue specialty training in theriogenology (reproduction) at Purdue University. Subsequent to passing her specialty board examination in 1997, she continued to teach at Purdue University as a clinical instructor for 2 more years. She then spent 6 months in Australia at a large equine referral clinic in Queensland, where she was involved in the management of a number of large Thoroughbred and Warmblood stud farms, and in the management of the embryo transfer and semen freezing programs at the clinic. She was also very active in the care of the neonates (foals) that were referred to the hospital. Upon returning to North America, she accepted a

position as the sole resident veterinarian for a large Standardbred breeding farm in Ontario, Canada. At this farm, she was responsible for the breeding management of the mares and stallions, neonatal care and the general health care of the 700+ animals residing on the farm. The farm also had an active embryo transfer program. She then left this position and worked at an equine referral clinic near Saratoga Springs, New York, where she was responsible for the breeding management of numerous farms, both large and small, and for the case management of all reproductive and neonatal cases referred to the clinic. Dr. Lopate thoroughly enjoys reproduction, neonatology, medicine and ophthalmology cases. She is adamant about client education and sound preventative health care. Outside of work, she loves to scuba dive, camp, hike, fish, bike, swim and spend time with her two dogs, Madison (an Australian Shepherd) and Hank (a Corgi). She also enjoys reading and needlework.

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NORTHWEST EQUINE VETERINARY ASSOCIATES, INC., P.S.

EQUINE NEWS



JANUARY

2003

The Importance of Equine Dentistry

by Steve Latimer, DVM

Dental disease is a major cause of unthriftiness and poor performance in horses. Major dental problems, which are common, significantly affect growth and performance. According to a North Carolina State University study, approximately 40% of horses have significant dental problems. Even horses never ridden need more examination and dental care than do wild horses. Wild horses are selected for survival, and those with abnormalities die younger and contribute little or nothing to subsequent generations. Since horse breeders do not select or cull on the basis of dental perfection, and since we want our horses to live very long lives, routine dental examination (beginning as a foal) and care is critical.

Unlike other domestic animals, horses must grind their food into a finely masticated bolus before swallowing. The composition, eruption pattern, and wear of the teeth results in a constantly changing grinding surface. In common with other animals that grind from side to side, the horse's upper jaw is wider than the lower. This configuration is efficient but results in unequal wear of the contact surfaces. The outer enamel margin of the upper teeth (against the cheek) and the inner margin of the lower teeth (against the tongue) are not worn at the same rate as the rest of the tooth resulting in the formation of extremely sharp enamel edges. These edges hinder efficient chewing and may lacerate or ulcerate the cheeks and tongue. Since deciduous (baby) teeth are softer than adult teeth, the sharpest enamel edges are found in two to five year old horses.

The adult horse has six upper and lower incisors, used for grasping food. Between the incisors and premolars lie the canines, two upper and two lower. The canine teeth in mares are usually small or absent. The first teeth past the canines are the first premolars or "wolf" teeth. Wolf teeth are rarely found in the lower jaw. The second, third, and fourth premolars and the first, second, and third molars lie beyond the wolf teeth. Each row of teeth is termed an arcade. The twenty-four large cheek teeth are responsible for efficient digestion.

Foals are born with their deciduous (baby) teeth just under the gum or barely erupted. The first incisor is present at birth or within the first week. The second incisor erupts within four to six weeks, and the third incisor does not appear until six to nine months. The premolars erupt between birth and one month. There are no deciduous molars. The wolf teeth erupt at about six to twelve months.

Between the ages of two and five tremendous changes occur in the mouth. All of the deciduous incisors and premolars are shed and replaced by their permanent counterparts. In addition the permanent molars erupt.

The most common sign of dental discomfort or disease is decreased athletic performance. In young horses this is often perceived as stubbornness or resistance. Other signs include head-tilt, difficulty chewing, head-tossing, bit-chewing, tongue lolling, tail-wringing, bucking, drooling and bad breath. Weight loss and spillage of grain are inconsistent and often unreliable indicators of early dental discomfort and are more indicative of chronic neglect of routine care.

A dental examination must include inspection, both visually and palpably (by hand) of all the teeth (incisors, canines, pre-

molars, and molars). Incisors must be evaluated during every dental exam. Incisor abnormalities are common and include retained deciduous teeth, long incisors, uneven alignment, parrot-mouth (overbite) and sow-mouth (underbite). Second, many veterinarians skip or neglect incisor examination. This often results in the progression of minor easily correctable defects into significant pathology and disease.

Canines, if present, should be examined and evaluated. If overly long or sharp, they may be reduced and rounded by up to 50% of their original size. Unless fractured or infected, canines should not be extracted.

Wolf teeth may be fractured from bit pressure or may cause persistent riding discomfort. If present, they should be extracted from all horses except career broodmares and pasture ornaments.

Most importantly, the cheek teeth, (premolars and molars) should be individually palpated for abnormalities (yes, all 24 of them, one at a time). Retained or impacted baby premolars will be present between two and one-half and four years of age. Fractured and loose or infected teeth can occur at any age. Large hooks or spikes typically occur on the upper second premolars and lower third molars. These hooks interfere with biting and cause significant local jaw pain.

Once the major problems have been identified, they must be corrected. Prior to the mid-1990's, this work was performed by hand with molar cutters, chisels, wire saws, and specialized rasps (or floats). This typically resulted in insufficient correction of the abnormalities. In addition, many horses sustained significant oral trauma and tooth fractures. In recent years, specialized training, state of the art power equipment, and rapid cutting solid carbide floats have enabled interested veterinarians to provide the best quality dental care in the history of veterinary medicine.

The correction process includes removal of hooks and spikes, rounding and smoothing of sharp edges against the cheeks and tongue, restoration of the normal grinding surface angle, and correction of incisor abnormalities. In addition, younger horses may require removal of deciduous and wolf teeth. Riding horses experience improved comfort and bit acceptance if the second premolars are rounded and smoothed into a "bit seat".

The average riding horse should be floated every six to twelve months, although individual variation is extreme. There are some horses we float every three months and some we float every two to four years.

The major problems we see with dentistry in horses is that it is still very hard work which requires specialized ongoing training and equipment. Equine dental education and training in veterinary schools is severely lacking. U.S. veterinary colleges devote only a few hours of dental training throughout their four year programs. Also, the majority of well informed horse owners realize the importance of routine dental examinations and treatment but a few are shocked when we mention floating once yearly or floating a horse prior to seven or eight years of age.

Preparing for the Upcoming Breeding Season...(continued)

Mares that were either problem, repeat or barren the previous year should be worked up for their infertility and treated if necessary. If no treatment is necessary, the breeding plan for the following year should be devised and may include uterine flushing, oxytocin therapy, post breeding treatments or a myriad of other potential treatments. It is very important to determine the plan prior to the breeding season, rather than waiting until you have trouble again to decide to workup the mare.

For those mares that will be bred prior to the end of April or May (the start of the mare's natural breeding season), artificial lighting will result in early cyclicity. Mares must be exposed to light for 16 hours a day, beginning 60 days prior to the onset of the desired breeding season. This means, that if you want to breed your mare in mid-February, you must start the lighting program by December 15. A standard 60 - 100 watt bulb in a 12 x 12' stall will provide adequate light. A general rule of thumb is that if you can read a newspaper in every corner of the stall, then the lighting is adequate. The lights are usually placed on a timer and turned on at 4 pm and off at 12 am. The lighting system should be checked daily, because a failure of the system for just a day or two can result in the requiring the priming process to start over again.

A place for palpation and insemination (AI) should be established. Palpation will generally require an ultrasound machine, so a sturdy table or hay bales and electricity will need to be available. Palpation and AI can be performed in a stock, through the doorway of a stall or along a wall. The mare, especially maidens or new mares on the farm, should be taught to stand in the manner they will have to in this predetermined area. Mares should be walked through and placed in the stocks, or backed up through the stall door and stood still, or held along a wall quietly and then rewarded for good behavior so that when it comes time to work on the mare, she will at least be used to the positioning. This allows the palpation experience to be less stressful on the young or inexperienced mare.

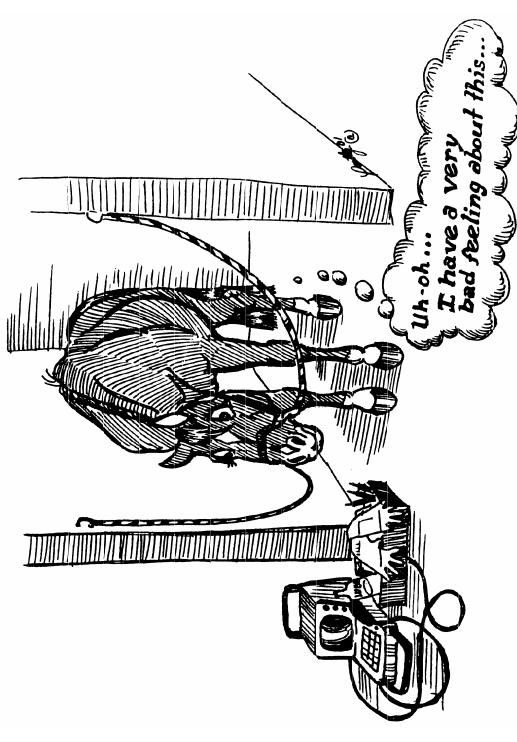
If you are breeding or foaling out outside mares you should have a checklist for owners regarding what vaccinations, deworming, Coggins testing, and hoof trimming you require prior to arrival at your farm. Be firm, stick to the list, and let outside owners know that if the mares are not properly cared for, your regular veterinarian will get them up to speed on arrival, at the owner's expense.

Stallions:

Feeding, vaccination, hoof trimming/shoeing and deworming of stallions should be similar to that of the non-pregnant mare. Additionally, all stallions being bred naturally and any stallion either being used in or potentially being used in the future in a frozen semen program should be tested and vaccinated for equine viral arteritis (EVA). Following vaccination, the virus is shed venerally for 2 - 3 weeks, so as a general rule, stallions are not allowed to cover mares or enter the breeding shed for 1 month after receiving the vaccine.

A routine collection and evaluation of semen should be performed prior to the onset of the breeding season. Usually, the stallion will need to be collected or bred a few times prior to this evaluation to clear the reproductive tract of any dead spermatozoa accumulated in the "off season". This early evaluation will allow booking estimates for the year to be determined and warn of any obvious abnormalities that may be present in the ejaculate. Young stallions should be trained to be collected artificially even if they will be used for natural service to allow routine semen evaluation to be performed and for collection of semen for freezing if desired.

Early preparation of all breeding animals and equipment for the upcoming breeding season allows for an easy transition period into this very busy time of the year. Please call the office or your regular veterinarian for any questions you might have in regards to your breeding farm setup.



Dr. Lopate will be speaking on this topic at the Black Diamond Community Center Saturday—February 1, 2003 at 10:00 am. Please contact our office to reserve your space.

“Preparing for the Upcoming Breeding Season”
Black Diamond Community Center
31605 ~ 3rd Avenue
Black Diamond
(360) 886-1011

Saturday ~ February 1st, 2003
10:00 am to 12:00 noon

The Importance of Equine Dentistry...(continued)

As Dr. Merrilat wrote in his text on veterinary surgery: "The principal object of dentistry is to promote the general health by improving mastication and by relieving pain. Animal dentistry must respect the horses mouth as the "seat of the bit" as well as the mechanism of mastication. Animal dentistry owes its existence to a single major physical defect—sharp enamel points. Since few mature horses escape enamel points, cutting and floating is the principal work of the animal

dentist." Do you find it interesting that Dr. Merrilat's textbook was written in 1921?

Northwest Equine has been providing advanced dental care since 1996. As dental knowledge continues, we are continuing to learn advanced techniques such as bite correction with orthodontic appliances, therapy for periodontal disease, and preservation of infected teeth.

Preparing for the Upcoming Breeding Season

*By Cheryl Lopate MS,DVM
Diplomate, American College of Theriogenologists*

With January fast approaching, it is time to begin thinking in earnest about the upcoming breeding season. Preparations for the arrival of new foals and the subsequent rebreeding of the mares; for the early breeding of those mares that were either left open or were barren last season; for maiden mares; and for stallions should begin in December.

Mares Due To Foal:

Mares should be placed on an increasing plane of nutrition between the seventh and eighth month of pregnancy. Their grain consumption and the percent protein in their diet should be increased. Protein content should be slowly changed from 10% (maintenance) to 14% to allow for the rapid increase in fetal size which is occurring during late gestation (pregnancy). Access to free choice clean water and trace mineral salt should be provided at all times. The mare's feet should be trimmed every 6 – 8 weeks. Deworming, which should be done every 6 – 8 weeks routinely, should be performed 1 month prior to foaling along with a full set of vaccinations. This set of vaccinations may need to be divided into 2 sets depending on the combination and number of vaccines administered. At a minimum, encephalitis, tetanus, rabies and rhinopneumonitis should be administered. Recommended, but not absolutely required, vaccines include Strangles, Influenza, West Nile encephalitis and Potomac Horse Fever. Other vaccines which may be tailored for a specific farm include rotavirus, botulism toxin and other autogenous vaccines.

The place where the mare is to foal should be determined. If the mare is due to foal early in the breeding season (rainy season) then she should foal inside. A 12 x 25' stalled is preferable. It should be stripped completely and disinfected as thoroughly as possible. A dilute bleach solution (10%) placed in a pressure sprayer works well for disinfection. Masks, gloves and protective clothing should be worn during disinfection and adequate ventilation should be provided during the disinfection process. Persons with asthmatic conditions should avoid exposure to aerosolized disinfectants. Rubber mats can then be placed on the floor of the foaling stall. All mares should foal in clean straw bedding. Sawdust should be avoided completely as certain bacteria (ie. Klebsiella species) live in sawdust and can easily infect the navel (umbilicus) of

West Nile Virus Update...

As of December 2002, Nebraska leads the nation with 1096 cases of equine West Nile Virus. There are now over 12800 cases in 2002, compared to 783 cases in 2001. A few cattle have been diagnosed with West Nile but authorities are not concerned about it being a significant threat to cattle. West Nile has also been diagnosed in 9 dogs (Louisiana, Illinois, Nebraska). Safety trials for a bovine and canine vaccine are being considered. Although crows and jays were some of the first bird species affected by West Nile, the CDC has now reported more than 110 species of affected birds.

As many of you have now heard, there have been two dead birds found in our state that were infected with the West Nile Virus (in Spokane and Snohomish). Soon after this, the first confirmed case of West Nile Virus in a horse in Washington State was documented. This horse resides on Whidbey Island and had just received his second booster when signs were identified. He is now doing fine. It is important for horse

What is Videoendoscopy and How Can It Help Your Horse?

By Sarah Sampson, DVM

A videoendoscope is an instrument which contains a tiny video camera that can be passed into areas we would otherwise be unable to see. This enables us to recognize several disorders of the respiratory tract, esophagus, stomach, urinary tract, and uterus.

Respiratory Tract: Endoscopy provides an invaluable means of assessing the upper and parts of the lower respiratory tract of horses. It is helpful in establishing the origin of respiratory noises seen with many upper airway problems, but also for localizing the site of exudates (discharge) or hemorrhage (bleeding) that might originate from problems in the guttural pouch, nasopharynx, or lungs.

Esophagus: Endoscopic exams of the esophagus are important to diagnose obstruction (choke), stricture (a narrowing of structure due to previous damage caused by obstruction, or trauma, or as a congenital problem), compression from structures around the esophagus, esophagitis (inflammation caused by gastric reflux), perforation of the esophagus, esophageal diverticulum (outpouching), neoplasia (cancer), and megacosophagus (loss of muscular control of the esophagus). These horses and foals can present with any of the following signs: inability or trouble swallowing, excess salivation, nasal discharge containing food particles, frequent choke episodes, inappetence, and/or depression.

Stomach: Disorders of the stomach of horses and foals are now being diagnosed with increasing frequency because endoscopes have now been developed that can reach into the adult horse's stomach (a distance of up to 3 meters). Gastric ulceration is now known to exist in at least 25-50% of foals, young horses in training, high level performance horses, and possibly even higher in racehorses. We also see a significant number of pleasure horses with gastric ulcers. The gastro-scope enables diagnosis by visual inspection of the stomach lining where ulcers can be seen and graded on severity and

owners to understand that even though your horse has had its two West Nile boosters, full immunity is not achieved until approximately five weeks after the second booster. This means your horse is still at an increased risk of contracting West Nile disease for a minimum of two months after its first shot. We are recommending a two booster series, with the shots being administered 3-4 weeks apart. The series should begin now and then a third booster can be given in six months when we are in peak mosquito season. If you are in or going to a mosquito-dense area, it may be beneficial to give horses that are over 20 or immune compromised in any way (eg. Cushings horses) a three booster series, with each shot 3-4 weeks apart, and then a fourth booster in six months. The vaccine is then to be given yearly, according to labeling directions, for all horses. We will keep you informed of changes to this protocol as we know them. Please feel free to call our office with any questions you have at any time.

location. It is also important to rule out gastric neoplasia (cancer). The horses and foals with gastric ulcers can present with any of the following signs: colic (especially recurrent colic episodes), inappetence, bruxism (teeth grinding) or abnormal head movements or yawning, poor weight gain and/or poor condition, poor performance, and/or behavior changes. Diagnosis can only be made definitively with gastroscopy. It is important to note that signs of gastric ulceration can be subtle and infrequent, so if you are at all concerned please contact one of our doctors to discuss this. Gastric ulcers are very treatable with a product called Gastroguard® and can heal completely thereby saving your horse from multiple colics and improving performance quickly.

Urinary Tract: Endoscopy of the urinary tract is an extremely useful diagnostic aid when the complaint is abnormal urination. Visualization of the urethra and bladder can help to diagnose abnormalities in structure or function as well as stones in the bladder or urethra, or neoplasia of the bladder. These horses present with signs that may include: frequent, short urinations, hematuria (blood in the urine), inability to urinate (can look colicky because they strain to urinate), and/or interrupted urine streams.

Uterus: Uteroscopy is now being done to evaluate cysts within the uterine lumen and determine feasibility of their removal, to locate, evaluate, and biopsy masses; and to visualize the oviducts at openings and cervix. Definitive diagnosis of the above disorders involving these structures is very important in determining treatment options that will produce the best chances of fertility. Many of these problems have excellent outcomes with fast and effective intervention.

At Northwest Equine we have several different sizes and types of endoscopes that enable us to diagnose these multiple disorders in your horse. We welcome your questions regarding any problems you are concerned your horse may be experiencing.

By Sarah Sampson, DVM