

Equine NEWS

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Equine Clinician Network a valuable tool for practitioners

Regardless of how much education and experience equine practitioners gain throughout their career, there are always times when it can be essential or beneficial to consult with colleagues. Difficult or rare cases, new knowledge from someone with more expertise, or simply a discussion of current trends makes networking invaluable. In the past, equine veterinarians were limited to colleagues they knew, worked with, or could contact by phone.



But taking advantage of the Internet, **Dr. Claude Ragle**, a Washington State University board-certified equine surgeon and associate professor of equine surgery, began the Equine Clinician Network (ECN) to make discussing and sharing information about equine medicine and surgery easier, faster, convenient, and more thorough.

Dr. Ragle initiated the project fifteen years ago, and has single-handedly managed and maintained the network since 1992. Original members included several colleagues and friends in academia who had access to the Internet when it was in its infancy. Today, it is a global network with approximately 2,000 members who log on to discuss and share information.

ECN is only open to equine clinicians and veterinary students, and only distributed to the network members. Network members can submit topics, questions, answers, information, and personal experiences regarding equine medicine and surgery.

"Members can access complete, current published equine information, as well as worthy clinical information that is not published," Dr. Ragle said. "The network can add power to clinical observations, and also foster professional collegiality.

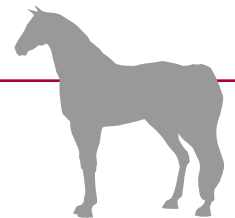
"The main goals of the network are self-education and sharing information," he said. "The network is a professional environment in which we strive to maintain trust, respect, sharing, safety, and the golden rule."

The network is divided into two sections that include a listserv for questions and answers about specific problems or issues, and a Web page for images and video clips.

"The listserv is basically a message exchange in which someone with a horse that has a specific problem can e-mail a question about the case and all members can respond," Dr. Ragle said. "People can also view images and video clips of, for example, a wound, mass, or video of a horse with a certain gait problem or intra-operative surgery. The network is set up that way to benefit members in rural areas of North America and other countries that don't have fast Internet connections, so the listserv is text-only to aid speed."

"ECN is a huge service to equine practitioners and veterinarians in general," said **Dr. Ahmed Tibary**, a WSU associate professor of theriogenology and board-certified specialist in large animal reproduction who has clients and lectures world-wide. "It is one of the leading lists where veterinarians can go to find out about new treatments and tips, disease information, and contacts. The network is very interactive and members get to use a wealth of information that is not published anywhere else. Scientifically, it might not always be hard science, but the number of years of practical experience can be very important when you don't have the science you need. Dr. Ragle has nurtured a very productive and professional list.

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Pain-foal

WSU study results in new guidelines for controlling pain in neonatal foals

For several years, equine researchers at Washington State University have led investigations into new ways to control pain in horses. Recently, **Dr. Marta Gonzalez Arguedas**, a WSU equine medicine resident, completed a clinical trial that for the first time gives veterinarians insights into a drug called butorphanol that is commonly used to treat pain and produce sedation in neonatal or newborn foals. Neonatal pain management is a relatively new area of interest within human medicine, and it is almost non-existent in horses.

"We wanted to extend our studies to look at foals, because our current understanding of equine neonatal pain is minimal," said **Dr. Debra Sellon**, a WSU board-certified equine medicine specialist and professor who has studied pain management in adult horses.

"There have been studies on pain management in older horses, but none of these reports have addressed the difficulties in recognizing, assessing, and treating pain in neonatal foals," Dr. Gonzalez said. "Drugs used for pain management in adult horses cause different physiological, behavioral, and pharmacological effects than in foals. Unfortunately, equine practitioners often have to rely on data obtained from adult horses or other species when administering pain medications in neonatal foals. But extrapolating drug dosages for use in foals from established adult horse doses is often not valid."

Additionally, there are few options when choosing pain medications for use in newborn foals. Classes of drugs like non-steroidal anti-inflammatory drugs (NSAIDs) and alpha-2-agonists can produce more severe adverse effects in sick or compromised foals than in adults. Another class of drug, called opioids, has been the therapeutic mainstay for pain management in neonatal humans, and can control moderate and even severe pain.

"Because we didn't know much about the use of opioids and pain management in neonatal foals, I did a lot of research and reading about pain assessment and management in infants," she said. "Hopefully, the years of study and research on neonatal pain in humans can be used by equine neonatologists as a framework for further research in equine neonatology. The clinical situations are

similar because newborn infants can't communicate with words that they are in pain, so their doctors have to interpret what they are feeling."

The original clinical trial conducted at WSU was designed to evaluate the behavioral and physiologic effects that butorphanol, an opioid drug, had on neonatal foals. It was also designed to observe the pharmacokinetic effects, or how long it took the drug to be absorbed, distributed, metabolized, and excreted from a foal's blood after it was administered either intravenously or intramuscularly. Butorphanol has been determined to be an effective drug in treating pain in adult horses. But it can cause them to display excitement or become more active.

"We were surprised with some of the effects butorphanol had on foals," Dr. Gonzalez said. "It caused them to become sedated, rather than more active, and also increased their appetite and caused them to spend more time nursing than our control group. It didn't cause much change in their heart rate or respiratory rate, which is good for foals that are already sick because it doesn't compromise them."

Butorphanol is a narcotic and only available for use by a veterinarian or under the direct supervision of a veterinarian.

"This study will provide veterinarians with better information and data on when and how much butorphanol to give neonatal foals," Dr. Sellon said. "Dr. Gonzalez will present these findings at the annual American College of Veterinary Internal Medicine conference in Seattle in June.

"It is hard to know for sure if a foal is in pain, but there are a lot of medical conditions that we expect to cause pain, such as any type of injury, joint infections, or surgery," she said. "The results of this study were very helpful, and we are now studying the effects of other drugs in foals."

The study will be submitted for publication this year. The project, which began in 2005, was funded by the Morris Animal Foundation and the WSU Mary V. Schindler Equine Research Endowment. For more information about pain management options for horses and foals, contact Dr. Debra Sellon at dsellon@vetmed.wsu.edu, or the WSU Veterinary Teaching Hospital at 509-335-0711. 📍

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"I see it as a big advantage for busy veterinarians, veterinarians in single practices, and those in developing countries that don't have access to information another way," Dr. Tibary said. "ECN is a big achievement that is really associated with WSU. It is a great way to cross-pollinate veterinary knowledge and experiences that are too often segregated by geographical boundaries. I know many veterinarians in academia have drawn into the list comments and experiences of practitioners to develop research ideas."

Because ECN has been such a success over the years, Dr. Ragle has received several awards as its founder and moderator, including the American Association of Equine Practitioners' prestigious "Distinguished Service Award" last December and the General Wayne O. Kester/AAEP "Tip of the Hat" Award.

"ECN is a great forum for exchange of professional experience and information," Dr. Ragle said. "Each day, I see really intelligent and helpful colleagues communicating in a most efficient manner. We have some very experienced and highly credentialed people who contribute, and nobody gets paid. I learn something every day from the list. I consider it part of WSU's mission of continuing education, and it gives members the opportunity to share and respond not only with a large group, but also when they have time."

ECN and other forums for veterinary practitioners and specialists may be found at netvet.wustl.edu/vetmed/list.htm. For more information about ECN, contact Dr. Claude Ragle at ragle2@vetmed.wsu.edu. To subscribe, go to listserv.vetmed.wsu.edu/read/all_forums/subscribe?name=ecn. 📍

First Aid for wounded horses

Patching up a wounded horse is an inevitable part of horse ownership and care, and requires preparation for an emergency. Horses can get wounded in a variety of ways and from a variety of things, such as a kick from another horse, fence cuts, scraping against loose tin or nails off a building or scrap, or stepping on broken glass or other sharp objects.

Wounds can range from profusely bleeding gashes, punctures or deep penetrating wounds to lacerations, fractures, or simple scrapes and abrasions. Appropriate wound management depends on the location, depth, length, position, and severity of the injury. Surprisingly, large wounds are often not as serious and may heal better than small puncture wounds to certain areas like joints or tendon sheaths. Deep penetrating wounds can easily become infected, and in some cases, deadly.

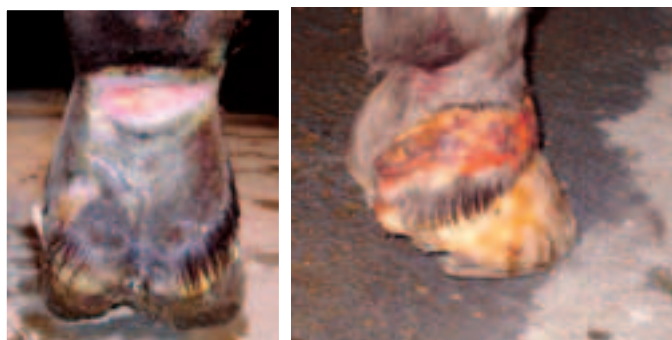
"Large, gaping wounds to the chest or higher up on the leg often look gory, but usually heal up very well," said **Dr. Julie Cary**, a WSU board-certified equine surgeon and clinical instructor of equine surgery and emergency care. "Wounds of major concern are wounds that are spurting blood, or are near or into tendon sheaths or joints or any place where the leg bends. It only takes a short period of time for bacteria to get into a joint. Treatment often requires intensive management, and if left untreated, will cause severe arthritis."

One of the first steps to take after discovering a horse is injured is to move it to a safe place if possible and calm it down to prevent further injury to itself or others. Moving is only a good idea if it can be done safely. It is also important to attempt to stop any bleeding by applying pressure on a wound. Once pressure has started, the dressing should not be removed to see if it has stopped. This disturbs any clot present and may make bleeding resume. When first aid is completed, owners should evaluate how serious the injury is, and if necessary, call a veterinarian.

A veterinarian should be contacted if the horse is acting very lame, even if the wound is small, if a fracture is suspected, or if a wound is bleeding heavily. A joint wound often will not result in lameness until it seals. Joint wounds are best treated before sealing occurs.

"Owners need to take immediate action if there is spurting blood. If a horse's mucous membranes turn white or pale, that means the horse has lost a lot of blood," Dr. Cary said. "It is important to stop the bleeding, and the best way to do that is to take a kitchen towel or similar item and wrap it around the area that is bleeding. Tightly secure the towel with duct tape, but don't get the tape on the animal's leg or body. Once the towel is in place, don't remove it and call a veterinarian."

If a horse has a fracture, the owner or rider should try to minimize additional tissue damage surrounding the fracture by holding the horse in place, and apply supportive first aid, such as



Above left: This is a photo of a pastern laceration. Wounds to this area are problematic because there is a tendon sheath located there, and it is a high-motion area. This makes the wound more difficult to heal without immobilization, such as a cast or splint. A case like this should be seen by a veterinarian immediately.

Above right: This is a photo of a heel bulb laceration shown three weeks after injury. The original wound penetrated into the coffin joint, causing the horse lameness while walking. With aggressive treatment, the infection was resolved and the horse is currently doing well. Regardless of joint involvement, these types of wounds can have problems healing because of constant movement. If left unattended, scar tissue builds that is larger and weaker than normal tissue, resulting in an area that can break open and become a problem any time it is lightly traumatized.

a split. Horses with fractures should not be moved until veterinary help arrives.

"It is critical to protect the soft tissues that cover the bone so that the sharp ends don't damage the tissue, nerves, or blood vessels in that area any further so that we have a chance to repair the fracture," said **Dr. Kelly Farnsworth**, a WSU board-certified equine surgeon and assistant professor of large animal surgery.

A veterinarian can help with this critical first aid, and can get the horse ready to travel to a clinic or referral center for treatment. Other reasons for calling a veterinarian include if the wound has foreign material lodged in the wound, if a joint or tendon is involved, or if the wound is gaping or more than two inches long and needs to be sutured.

"A veterinarian may also want to bandage anything below the knee or hock because wounds left open in these areas often develop 'proud flesh' or exuberant granulation tissue which can prevent the wound from healing properly and result in cosmetic problems because it produces nasty, fleshy-looking scars," Dr. Cary said. Proud flesh can even develop into benign tumorous masses that may require surgical removal.

For optimal wound healing, a veterinarian should treat a wounded horse within six to eight hours after the injury occurred to control bacterial contamination. Regardless if a veterinarian is called, essential first aid for injured horses includes minimizing wound contamination and subsequent infections from bacteria, dirt, or other objects.

"If a wound is not bleeding profusely, clean it up, and wash it out," she said. "It is ideal to use a saline solution, but water is okay if that is all you have. Owners should also be careful not to put irritating substances in the wound like soap, detergent, or other scrubs. It is all right to use chlorhexidine or betadine solution, but these antiseptic cleaners should be very watered down and diluted." Water-soluble wound gels, also called hydrogels, can be

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applied to reduce bacterial contamination, keep the wound clean and moist, and may speed healing.

“Once the wound is clean, it should be covered with a non-stick dressing like telfa pads and wrapped until a veterinarian can examine the horse,” Dr. Cary said. “Even if a wound does not seem serious, a veterinarian can thoroughly examine the wound, check the tendons, and make sure a horse’ tetanus shots are up to date.”

First aid kit components

Preparation for wound management and other emergencies requires having a first aid kit handy for both the horse and the rider. Veterinary contact information and a cell phone should be included if possible. It is also important that horses be kept up to date on tetanus vaccinations. Once a horse has been initially



- gauze squares for bandaging
- non-stick wound dressing pads
- cling gauze
- cotton rolls
- adhesive tape
- cohesive bandages
- antibacterial ointment
- antiseptic soap
- antiseptic solution like Betadine
- sterile saline

- Hydrogel
- bandaging scissors
- latex exam gloves
- leg wraps
- duct tape
- permanent marking pen
- hemostats and forceps
- pliers to pull nails
- clippers

vaccinated for tetanus, it should receive an annual booster.

“When riding, horse owners can use a first aid kit designed for people that includes basic bandaging supplies and scissors, but bigger bandages should be purchased,” Dr. Cary said. The WSU College of Veterinary Medicine recommends the list of supplies below be included in a more complete first aid kit for horses:

First aid kits should be kept in clean, dry, and easy-to-reach locations, such as stables, trailers, or vehicles. It is also necessary to replace outdated products at regular intervals. Owners should contact

their veterinarian for syringes, needles, and prescriptions they would like to include in their kits.

For more information on first aid kits or emergencies, contact the WSU Veterinary Teaching Hospital at 509-335-0711. 📞

- 6-inch PVC tubing cut vertically in half for emergency splints that are 1.5 to 3 feet in length
- rectal thermometer
- stethoscope (if knowledgeable in its use)
- flashlight and spare batteries
- first aid information
- horse transportation phone number
- local veterinarian’s phone number and alternate veterinarian’s phone number

Third Annual Ride for Research Event

The Washington State Horse Council and member organizations are hosting the third annual Ride for Research event to benefit the Washington State University College of Veterinary Medicine’s equine research programs.

The benefit will take place Friday through Sunday, July 6–8 at the Evergreen Sportsmen’s Club on 12736 Marksmen Rd., near Littlerock, Washington, in close proximity to Olympia. Events include a Friday evening social from 6:30 to 10:00 p.m., a prize ride beginning at 8:00 a.m. on Saturday, followed by an evening auction and barbeque dinner. An open ride caps off the weekend on Sunday. Camping is free during the weekend. Entry fees for the prize ride are \$20 for adults and \$15 for youths 13-years-old and younger. Additional tickets for the ride cost \$5. Previous top prizes for the ride included saddles, bridles, saddle blankets, and veterinary services. Supporting organizations for the event include Backcountry Horsemen of Washington, Washington State Horsemen, Woodbrook Hunt Club, and the John Wayne Pioneer Wagons and Riders.

The WSU College of Veterinary Medicine leads in many areas of equine research, including sports medicine, pain management, joint disease, advanced medical imaging, and new techniques in laparoscopic surgery. Additional work is also being pursued on

equine digestive and infectious diseases, as well as the immune responses of horses and foals to disease. The college recently added a new equine research barn that is critical for research into equine infectious diseases, as well as a large animal reproduction teaching barn that will house the college’s breeding, reproductive research, and teaching program.

The WSU College of Veterinary Medicine is staffed with many outstanding equine clinicians and researchers. It is one of the only veterinary colleges in North America currently equipped with magnetic resonance imaging equipment capable of evaluating lameness and neurological disorders in horses. WSU’s Veterinary Teaching Hospital also features a linear accelerator, one of the most advanced machines in the world dedicated to cancer treatment in animals. While most commonly used for dogs and cats, it has also been used to treat cancer in horses. Other sophisticated diagnostic and treatment technologies are available as well, including CT scan, ultrasound, endoscopy, and arthroscopy.

For more information about the event and directions, contact the Washington State Horse Council at 360-352-5883. For those who cannot attend but are interested in supporting the equine research programs at the WSU College of Veterinary Medicine, contact Lynne Haley at 509-335-5021 or lhaley@vetmed.wsu.edu. 📞

Why bring your horse to WSU's Veterinary Teaching Hospital?



Every day, veterinarians at Washington State University's College of Veterinary Medicine provide state-of-the-art medical care for animals and return them to their caring owners. From horses, dogs, and cats, to parakeets, cattle, alpacas, llamas, and iguanas, animals from all walks of life are treated in our world-class clinical teaching facilities.

WSU's Veterinary Teaching Hospital (VTH) is open to the public without a referral 24 hours a day. It is a full service hospital serving the Pacific Northwest and western Canada. The teaching hospital is also part of the Department of Veterinary Clinical Sciences, one of three academic departments in the College of Veterinary Medicine. The hospital offers services to both large and small animals, as well as some nearby livestock units.

The VTH is a state-assisted \$38 million facility that opened in September 1996. Each year, about 15,000 animals are treated here. The nearly three-acre facility encompasses the hospital, clinical laboratory, and epidemiological surveillance service, all under one roof. The central core provides space for surgery suites for small and large animals, clinical pathology, seminar rooms, administrative areas, reception, special medicine and diagnostic areas, and the state's only pharmacy dedicated exclusively to animals.

The VTH enjoys the finest medical imaging capabilities available to veterinary medicine worldwide. WSU is one of the most advanced veterinary hospitals in the world with such sophisticated systems as magnetic resonance imaging (MRI), computerized tomography (CT scan), and nuclear scintigraphy (bone scanning). In addition to these services, ultrasound, endoscopy, arthroscopy, laser surgery, and therapeutic technologies including surgery, medical management, and radiation therapy are available.

Specialized medical treatments in certain areas are also available at the VTH. These include cancer treatments that involve advanced surgical techniques, radiation therapy provided by the college's \$2 million linear accelerator, chemotherapy, and palliative care.

Client animals are treated by renowned specialists who are in the process of training compassionate and capable future veterinarians. Faculty in the Department of Veterinary Clinical Sciences conduct research to enhance current knowledge of diseases, diagnostics, and treatment. WSU veterinarians lead in many areas of equine research, including sports medicine, pain management, joint disease, and new techniques in laparoscopic surgery. Additional work is also being pursued on equine digestive and infectious diseases, as well as the immune responses of horses and foals to disease.

Appointments and Hours

Equine appointments can be made at the WSU Veterinary Teaching Hospital by calling 509-335-0711. No referral is necessary.

- Equine medicine appointments are scheduled on an individual basis.
- Equine surgery consultation appointments are scheduled on an individual basis to be performed later in the week.
- Equine theriogenology appointments are scheduled on an individual basis at a time most convenient for both the animal owner and the clinician.

Appointments may be scheduled directly by individual service areas. A 24-hour emergency service is also available for both small and large animals. Please call 509-335-0711 if you are bringing in an animal as an emergency so our veterinarians can prepare for your arrival.

What to expect

A trip to the WSU Veterinary Teaching Hospital is unlike a trip to most veterinary practices. Upon arrival, clients register at the admissions desk. A senior veterinary student, or in some cases an intern or resident, obtains a complete medical history from the owner or caretaker and performs an initial physical examination.

More than one graduate veterinarian will likely examine your horse while it is at WSU. Most of the equine services at WSU function in a team configuration with a senior clinician, intern, and resident—all veterinarians—present, so examinations and treatments generally take more time than they would in the private sector. Since WSU is also home to some of the world's best equipment, most notably medical imaging, there are often delays due to previous scheduling of diagnostic and therapeutic procedures. As with any medical facility, horses with true medical and surgical emergencies take priority over regularly scheduled appointments. In most cases, the hospital staff can give a reasonably accurate estimate of the approximate time necessary to adequately evaluate your horse and provide service. Because teaching is an integral part of the services we provide, most people accept some delays in order to obtain the most thorough and comprehensive examination for their horses that is available anywhere in the world.

Owners may stay with their horses during most initial examinations and some diagnostic procedures. However, there are some procedures, such as radiographs, nuclear scintigraphy, and surgery, where owners are not permitted because of safety, sterility, or infection control concerns. Daily visitation is allowed for hospitalized horses, but the timing and length of the stay may be limited and should be scheduled with the attending clinician. In some instances in which a horse is in intensive care or an isolation unit, owners are not allowed to visit except with special arrangements through the hospital staff for the same reasons noted above. All visitors need to check in at the front desk at the time of arrival.

Payment Policy

Fees comparable with private practices are charged for all services provided by the VTH, with payment due in full at the time of service. Clients with animals treated as outpatients will be given an estimate of the cost before the service is provided, with payment due upon completion of the visit.

Clients with hospitalized animals will also be given an estimate, with prepayment of half the estimate due upon admission. The other half is due when the animal is discharged.

Directions

The WSU Veterinary Teaching Hospital is located on the Washington State University campus in Pullman off Stadium Way



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and Grimes Way across from Lightly Student Services Building. To get to the hospital, turn right off of Stadium Way, heading east onto Grimes Way. Then take the second right hand turn heading south on Ott Way where a brown sign on the corner says “Veterinary Hospital.” Maps to the WSU College of Veterinary Medicine can be found at www.vetmed.wsu.edu/maps. Washington State University campus maps can be found at www.wsu.edu/campusmap.

Transportation and the Horse Van

Horse owners often choose to bring their horse to the WSU Veterinary Teaching Hospital themselves. But for convenience, WSU also offers a horse van service that transports horses to and from western Washington to the Veterinary Teaching Hospital in Pullman on a weekly or bi-weekly basis. The main pick-up point for horses west of the Cascade Mountains is at Donida Farms, with directions posted on the WSU Equine Web site at www.vetmed.wsu.edu/depts-equine/directions.asp#Donida. For more information about this transportation option, contact the Veterinary Teaching Hospital at 509-335-0711.

Parking

Space for short and long-term parking is available at the hospital for all sizes of horse trailers and vans. Agricultural animal and equine owners may pull their trailers through the security gate to park on the east side of the hospital. If parking for several hours, clients will be directed to a “longer term” lot. For those with RVs, parking is not allowed overnight, but the receptionist in the front lobby can recommend an appropriate place to park on campus.

Those having business with the VTH can park in the lot directly in front of the main entrance. Clients must sign in at the reception desk during regular business hours when parking in this lot.

Self-Referrals or Veterinarian Referrals


Owners may seek treatment for their horses without a referral. If a private veterinary practitioner refers a client, he or she should call WSU and speak to the accepting service regarding their client’s physical condition, where the client is coming from, anticipated arrival time if an emergency, and any other information pertinent to the client. If the case is not an emergency, the accepting veterinarian may transfer the caller to make an appointment.

We welcome referrals from our colleagues in private practice for a variety of reasons, but most importantly because it is an invaluable part of our professional veterinary education program. Referring practitioners are encouraged to keep updated on the progress of the animals they refer to our hospital, and there are a number of ways this can be done.

Want to know more about our equine clinical services, research, and accomplishments, or receive our quarterly newsletter online?

Check out our equine Web site at www.vetmed.wsu.edu/depts-equine, or the WSU Veterinary Teaching Hospital site at www.vetmed.wsu.edu/depts-vth/equineServices.aspx.

To subscribe to the online newsletter, go to www.vetmed.wsu.edu/depts-vth/EquineNews/online.aspx.

Also feel free to call 509-335-0711 for **equine appointments** or **emergency care.** 

WSU Veterinary Teaching Hospital Switchboard

Main Hospital Switchboard and Emergencies:.....	509-335-0711
Equine Appointments	509-335-0711
Agricultural Animal Appointments (Non-Theriogenology).....	509-335-5377
Theriogenology (Equine and Ag Animal).....	509-335-0741
Small Animal Appointments.....	509-335-0751/509-335-0752
Dean’s Office	509-335-9515

Department Chair.....	509-335-0738
VTH Fax Number	509-335-3330
Billing	509-335-0711
Pharmacy	509-335-0736
Pet Partnership Program	509-335-4569
Pet Loss Hotline	509-335-5704