



Summer Heat Can Be Hard On Horses Too

Monitoring vital signs is a way for you to keep track of the health status of your horse. A change in vital signs can be an early warning sign of illness, as well as a red alert in an emergency. There are differences among individuals and in different situations, so it is important to measure vital signs on a regular basis to get an idea of what is normal for your particular horse.

Your horse should be bright, alert and responsive. Being lethargic, not acting like himself, or not eating could be an indicator that something is wrong.

To check the pulse, arteries can be easily located in the following locations: inside edge of the horse's lower

jaw, just below the chestnut on the front leg, on the inside surface of the cannon bone just below the knee, or in the groove beneath the base of the tail. You may need to practice locating and measuring the pulse, some horses' arteries are more difficult to find than others. It may be easier to locate just after exercise. Heart rate will be affected by exercise, environmental temperature, disease, physical condition, excitement and age. Heart rates over 80 beats per minute for a prolonged period of time, without exercise or excitement can indicate trouble. Normal ranges: 30-40 beats per minute for a resting heart rate. Exercise can elevate the heart rate up to 200 beats per minute.

Respiration should be steady, effortless and produce little noise. Shallow, labored or noisy breathing can indicate illness or exhaustion. Normal ranges: 8-16 breaths per minute for a resting adult horse. Hydration is important to monitor especially when exercising in hot, humid weather. A dehydrated horse's eyes will appear sunken and the mucous membranes will appear dry and sticky. Hydration can be monitored by checking the pliability of skin. A normal horse's skin will return to its original position almost immediately. A dehydrated horse's skin will return slowly, or may stay tented.

Avery County Animal Shelter Remains Open

Last month WSOC TV reported that the Avery County Humane Society may be forced to close at the end of June. It was reported that shelter organizers and volunteers begged the county's board of commissioners to give them more money in order to stay in operation. Only a fourth of the shelter's \$200,000 annual budget comes from the board.

There is no county animal control office, only the Humane Society shelter. Last year the shelter found homes for more than 500 cats and dogs.

As a result of the coverage by WSOC TV, the public rallied with donations to support the shelter, many of which came from the Charlotte area. The donations made it possible for the shelter to remain in operation until the 1st of July – the start of a new fiscal year – and receipt of the allotted budget from the County.

Hyperthyroid Cat Clinic

The Veterinary Teaching Hospital at North Carolina State University's College of Veterinary Medicine has opened the Hyperthyroid Cat Clinic to support referring veterinarians and their clients whose cats have been diagnosed with hyperthyroidism, the most common endocrine disease in older cats.

Hyperthyroidism is caused by a non-malignant thyroid tumor that can be debilitating to the cat and potentially fatal if untreated. Overproduction of thyroid hormone causes an increase in the cat's metabolic rate and can result in weight loss, vomiting and diarrhea, hyperactivity, aggression, unkempt appearance and hypertension.

Owners should consult with their primary veterinarian. A physical exam and diagnostic testing can determine if the cat has hyperthyroidism and is a candidate for the Hyperthyroid Cat Clinic. Patients admitted to the Veterinary Teaching Hospital (VTH) will receive a dose of radioactive iodine administered by a single injection under the skin in a process similar to a simple vaccination. The cat will remain in the VTH for five days following the injection so the radiation level can be monitored. Follow-up examinations are provided at 30 and 60 days. The single injection will cure 95 percent of cats with no need of further treatment for the disease.

In addition to being safe and effective, the radioactive iodine injection is likely to be the least costly and less stressful treatment for hyperthyroidism when compared to the alternatives—twice daily medications over a lifetime or invasive surgery. Contact the VTH Internal Medicine Service at 919/513-6670 for additional information.

New Rules In Effect For Animal Exhibitions

The 11 members of the state Board of Agriculture, the policy-making body for the state Department of Agriculture and Consumer Services, approved rules governing animal exhibitions at agricultural fairs. The rules are designed for reducing the risk of diseases being transmitted from animals to people.

Agriculture Commissioner Steve Troxler said, "Animals are an important part of any agricultural fair, and these rules will help protect fairgoers as they interact with animals at these events."



The requirements include hand-washing facilities, a barrier between animal bedding and patrons to reduce contact with manure, increased signage warning of the risks associated with animal contact, and a prohibition on certain items, such as food, drinks, strollers and pacifiers, in animal areas.

The rules require the department's animal health technicians and veterinarians to inspect the petting zoos before they open. Agriculture department officials will also conduct spot inspections at petting zoos and issue permits. Animal Exhibition Sanitation/"Aedin's Law" was passed by the General Assembly last year. North Carolina county fairs voluntarily complied with the exhibit guidelines even before they became law. The regulations go into effect in September 1.

Scientists Coax Nerve Fibers to Regrow After Spinal Cord Injury

Newswise — In tests on rats, researchers at Johns Hopkins and the University of Michigan have developed a treatment that helps spinal cord nerves regrow after injury. The findings will be published in the July 18 issue of the *Proceedings of the National Academy of Sciences*. The study has implications for treating people who may face amputation of an arm after a violent injury in which nerves are wrenched from the spinal cord. The new treatment currently is under study for other types of traumatic spinal cord injury.

The researchers treated experimental nerve injuries in rats with an enzyme - called sialidase - that they isolated from bacteria. Four weeks later, more than twice as many nerves in the spinal cords of sialidase-treated rats grew new nerve fibers compared to untreated rats.

The experimental injury in rats mimicked an injury in humans that may occur during childbirth or in motorcycle accidents when an arm is pulled violently away from the body. This injury causes nerves to be yanked out of the spinal cord. Without these nerves, the arm loses feeling and muscle tone. Without muscle tone, the body cannot support the weight of the arm, and many health problems can develop.

While surgeons can sometimes reattach the yanked nerves to the spinal cord, this treatment is not as effective as physicians or patients would like. This is in part because nerves in the brain and spinal cord, unlike those in the rest of the body, fail to grow new nerve fibers. Nerves in the brain and spinal cord are surrounded by signals from other cells in the injured area that stop them from growing.

“Molecules in the environment of the injured spinal cord are specifically instructing the nerve end not to regrow,” says the study’s director, Ronald Schnaar, Ph.D., professor of pharmacology and neuroscience in the Institute of Basic Biomedical Sciences at Hopkins.

“The brain and spinal cord are extremely crowded with nerves and nerve fibers, which may be why we have developed careful controls that tell cells to stop making new connections. The crowded central nervous system has ways to say ‘OK, we’re done’ to keep nerves from sprouting willy-nilly and making inappropriate connections. But in gaining the ability to crowd nerves close together, we have given up flexibility - the ability to heal after injury.”

“If you sever your finger, it can be surgically reattached, and nerve fibers typically grow back so that you can use your finger again,” says Schnaar. “In contrast, the injured brain and spinal cord are rocky terrain for nerve fiber growth,” he says. “Finding ways to smooth that road might help the nerve fibers to regrow.”

Several molecules in the spinal cord are known to stop nerve fibers from growing. Schnaar refers to these molecules as axon regeneration inhibitors, or simply ARIs.

“Treatments that eliminate ARIs might allow the nerve ends to regain their natural regenerative abilities as they do in the periphery and improve recovery,” says Schnaar.

The researchers looked at the boundary between the spinal cord and the periphery to see if they could coax a nerve end to grow out of the inhibitory spinal cord into a more permissive environment that contains fewer ARIs. They chose to mimic the injury commonly seen in motorcycle accidents, called

brachial plexus avulsion, because it involves nerves at the boundary between the spinal cord and periphery.

The researchers surgically severed nerves that normally extend from the spinal cord to the shoulder of anesthetized rats. They then transplanted a nerve from the hind leg of the same animal into the spinal cord to reconnect the injured nerve ends.

To coax the injured nerve ends to grow fibers and connect to the transplanted nerve, they used an implanted pump to bathe the area with one of three different enzymes known to destroy ARIs. Four weeks after transplantation and enzyme treatment, the researchers injected dyes into the nerves to see whether and how many nerve fibers grew from the injured cells of the spinal cord into the transplanted nerve.

Rats treated with one of the three enzymes tested, sialidase, showed well over twice the number of new nerve fibers than rats treated with saline, which is not expected to enhance nerve growth. Moreover, the researchers saw that the new fibers were made by nerve cells residing in the spinal cord.

“We have established that the enzyme sialidase, which destroys one of the molecules that inhibits nerve regeneration, is sufficient to robustly improve nerve fiber outgrowth from the spinal cord,” says Schnaar.

Surgical transplantation of a peripheral nerve to help nerve fiber growth from the spinal cord has shown limited success in humans. “The addition of a new treatment to enhance our current surgical management of brachial plexus avulsion in people would be welcomed by patients and surgeons alike” says Lynda Yang, M.D., Ph.D., an assistant professor of Neurosurgery at the University of Michigan. Dr. Yang, the study’s lead author, helped pioneer the study of ARIs while a doctoral student with Dr. Schnaar at Johns Hopkins in the 1990s.

Having shown here that sialidase can increase the number of spinal cord nerve cells that extend fibers into a transplanted nerve, Dr. Yang now is testing if the nerves re-establish muscle control. “We’re very interested in seeing how much function you can get back,” she says.

According to Schnaar, there is some evidence that this transplant technique coupled with sialidase treatment can coax other, nearby nerve cells within the spinal cord to grow out as well. “Once you rewire, then the brain does an amazing job of sorting it all out,” he says.

Having established the ability of sialidase to improve spinal nerve regeneration into transplanted peripheral nerves, Schnaar and his research team at Hopkins are testing the same treatment to see whether it will help nerve regeneration in other types of spinal cord injuries.

“Even a small improvement might mean a lot. People with spinal cord injuries generally are not looking to play football,” says Schnaar, “but to regain basic functions. A modest improvement in nerve regeneration might make a big improvement in a patient’s quality of life.”

The researchers were funded by two branches of the National Institutes of Health: the National Institute of Neurological Disorders and Stroke and the National Heart, Lung, and Blood Institute, and by the Department of Neurosurgery at the University of Michigan.

Authors on the paper are: Yang of the University of Michigan, and Ileana Lorenzini, Katarina Vajn, Andrea Mountney, Lawrence Schramm, and Schnaar all of Johns Hopkins.

Coyotes in Carolina

Coyotes first appeared in the western part of the state in the late 1980's, and can now be found in all 100 counties. The coyote's territory is usually 2 to 3 square miles. They have earned a bad reputation because they sometimes attack domestic cats and dogs, as well as livestock. Biologists say that despite their reputation coyotes generally avoid humans and pose little threat of attack.

According to NCSU Wildlife Extension coyotes often include many items in their diet. Rabbits top the list, but rodents, deer, fawns, insects, as well as livestock and poultry are also consumed. Coyotes are opportunistic and generally take prey that is the easiest to secure. Coyote predation on livestock is generally more severe during early spring and summer than in winter.

Coyotes are most active at night and during early morning hours (especially where human activity occurs), and during hot summer weather. Where there is minimal human interference and during cool weather, they may be active throughout the day.

As development takes over once-wooded areas, coyotes are moving into residential areas. The animals are being attracted to neighborhoods and back yards by easy food sources, such as pet food, scraps, and small dogs and cats.

Recently, a small dog was killed by a coyote in Mount Holly; in Forsyth County a dog was attacked but survived. Two attacks have been reported last month in Guilford County: a man was bitten while having lunch in the park and a woman's dog was attacked while being walked. Warning signs are now posted at Guilford Courthouse National Military Park.

If you spot a coyote on your property and decide that the animal is causing a significant concern, the NC Wildlife Resource Commission recommends the following steps:

- Remove food sources, cover materials or vegetation, overhanging tree limbs, or other means of access that initially attracted and is now holding wildlife in your location.
- Establish protective structures or barriers to prevent wildlife from entering and damaging property.
- Humanely remove wildlife from buildings and grounds. If trapping, transporting or killing wildlife is involved, a Wildlife Depredation Permit will be needed.
- Permanently repair buildings to prevent re-infestation.
- Monitor buildings and grounds periodically for recurring problems, taking appropriate, immediate attention to control and prevent damage.

If you are looking for someone to help remove animals, then a Wildlife Damage Control Agent can help. A list of local WDC agents is available by calling your local Extension office.

Due to a growing concern among landowners and farmers regarding damage by coyotes, the NC Wildlife Resources Commission approved changes beginning July 1 2006 to allow hunting of coyotes at night using red or amber lights during a time that does not coincide with existing deer seasons

Reports of coyotes may be increasing, but they are still not that prevalent. It is always advisable to be alert as anything can happen when you push them out of their habitat.

SELECTING A PET CAVY

As with any animal, obtaining a healthy cavy is the first step to a satisfactory experience! Choosing a breed, determining the disposition, and finding your preferred color or pattern are almost as much fun as actually getting the cavy!

Health: All the traditional measures of a good health apply, but particular to cavies is the fact that blinking is rarely observed and deep sleep when you are present is not expected behavior. (Ones housed with constant commotion such as a pet store may eventually become used to the environment and be seen sleeping.) A baby cavy should be at least 4 weeks old before being sold or adopted. The size of a baby this old varies with genetic and environmental factors. Expect it to be 10 – 16 ounces. Cavies do not require vaccinations or deworming.

Breed: There are 13 "recognized" breeds in the US, as well as the inevitable mixtures. Being able to know the breed will be helpful in determining future coat needs, because if you buy baby long haired pig or crossbreed of them, they can quickly grow a coat of hair that sends you to the yellow pages looking for "guinea pig groomers." Of course there is no such business, but brushing, trimming and bathing are all things you can do yourself. Show animals whose coats are encouraged to grow, are maintained in soft rollers for protection and tidiness. There are many breeds whose coats do not grow long, and while grooming them is good (and possibly a yearly bath), the coat will not require maintenance.

Disposition: Nearly any cavy will run from your touch with these exceptions: it is in a very confined area, it is sick, or it is extremely tame and docile. Running from the hand is a natural instinct, and most cavies will be much calmer once you have picked them up and held them quietly. Put them down and the process will begin again, as if they learned nothing! Frequent gentle handling will pay off with a calmer pet. Don't over do it with very young ones or if it is hot. Bottom line - don't reject one if it does not hold still for you to stroke it in the pen, and don't automatically choose one who doesn't move.

Biting is an abnormal behavior which must be evaluated with a critical eye. If you are considering a cavy who tries to bite (flesh, not just clothes), it may be due to: food smell on your hand; mange, scurvy, or an injury that is causing pain; extreme mishandling in recent past; or a radical departure from the normal cavy disposition which cannot be corrected.

Colors: If you have a pre-conceived notion of a special color or markings you desire, you will probably need to find a breeder and may be put on a waiting list. Naturally this will also enable you to be sure of the breed you are getting. Since the other factors are more important in a pet guinea pig, you could find that "the perfect pig" is dressed in any color!

Do consult books and on-line references for other important information on housing, nutrition, handling, breed/color descriptions, medical issues, and cavy organizations. Be prepared! Enjoy your cavy!

*Margo Purdy
NC Cavy Breeders Association*

Breed Specific Legislation

Attempting to identify one breed as more "dangerous" than another is meaningless, because from year to year the breed of dog responsible for the most serious bites and attacks often changes in proportion to the popularity of the breed. In addition, accurate bite statistics are difficult to obtain due to lack of reporting and inaccuracy of breed identification, and unavailable statistics on dog breed populations in a given area. Any dog, regardless of breed if not properly raised, cared for, trained and controlled is capable of inflicting harm on a person in certain situations. However, in cities, towns, and counties across the nation one or more of about two dozen breeds are still banned.

In Prince Georges County Maryland 800-1,000 "pit bulls" are killed each year. 80% were family pets, pit bulls and look-a-like mixes, reported to animal control by neighbors, taken from their families and destroyed.

In Denver, Colorado the number is nearing 1,000 pit bulls confiscated and destroyed since the ban was enacted last year. Recently 38 pit bulls were destroyed while a rescue organization was on its way to Denver to adopt them.

FROM DOG POLITICS ~ MY DOG VOTES EVENTS

Light A Candle, Save A Life - Join The Annual My Dog Votes Worldwide Candlelight Vigil Against Breed Bans

Please join thousands of dog owners worldwide on Sunday, August 20th, 2006 at 8 PM EST, to remember the victims of breed bans in the 2nd Annual My Dog Votes Worldwide Candlelight Vigil Against Breed Bans.

We're asking dog owners everywhere to help by holding local candlelight vigils and stand in solidarity with dog owners in affected communities.

Light a candle to shed light on breed discrimination and help save the thousands of innocent dogs who will be put to death because of breed bans.

Light a candle and remember the innocent dogs killed in the Province of Ontario. Light a candle and remember the innocent dogs in California, in Massachusetts, in Prince Georges County Maryland, in Mobile, Alabama.

Light a candle and save a life. No matter where you are, no matter what breed of dog you own, tell your friends and neighbors. Tell every dog owner you know about this vigil, and ask them to join you to stop the spread of fear and hate.

My Dog Votes asks you to show your support and solidarity for innocent dogs by creating a candlelight vigil in your community - do it for the dogs.

My Dog Votes is asking that you gather peacefully in your local park or on the steps of your municipal building with signs and candles at 8 PM EST on Sunday, August 20th at 8 PM EST.

http://dogpolitics.typepad.com/my_weblog/2006/07/light_a_candle_.html

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