

Equine Emergencies and First Aid

If you have owned a horse for a period of time, chances are you have or will encounter a situation in which veterinarian attention is necessary. When this time comes, you must be able to assess the situation and determine if it is an emergency, or can the situation wait for a scheduled visit from your veterinarian. To determine if the situation truly is an emergency, it is first important to know what is normal for your horse. The following table lists the normal vital signs for an adult horse.

Temperature	99-101.5 °F
Pulse/Heart Rate	28-40 beats per minute
Respiration Rate	20 breaths per minute
Mucus Membrane Color	Pale pink
Capillary Refill Time	< 2 seconds

It is a good practice to check your horse's vital signs regularly so that you can quickly recognize when something is abnormal and react to the situation in the appropriate manner. If you do encounter an emergency situation gather the following information before you call the veterinarian. Vital signs such as temperature, pulse, respiration rate, mucus membrane color and capillary refill time, will inform the veterinarian on the seriousness of the injury or illness. Be prepared to list specific details such as the location and nature of the injury, the horse's attitude (agitated/depressed), the time that the injury has occurred, and if the horse is lame and the degree of lameness.

There are several situations that are true emergencies and require immediate veterinary attention. Below is a list of the most common emergencies, but of course the list is not inclusive.

Injury with profuse bleeding	Obvious or Suspected Fractures	Cut that requires sutures
Nail in the Hoof	Sudden Lameness	Respiratory distress
Choke	Seizures	Tying Up
Eye Injury	Colic	Allergic Reaction

Injuries with Profuse Bleeding

Due to the horse's natural instinct to flee from scary situations, they tend to run into (or through) sharp objects such as fences, tree branches, and metal doors. These injuries tend to bleed profusely. The good news is that horse's can lose up to 10 liters of blood before any major circulatory damage is done. If you do encounter an injury that is bleeding profusely, you should take certain steps as you are waiting for the veterinarian to arrive. First apply pressure to the wound with a clean dressing to slow down the bleeding. The dressing may be secured in place with a bandage if possible. The bandage should be secured tightly enough to slow down the bleeding, however be sure that it is not too tight and cuts off the circulation. The use of a tourniquet is not recommended because these often do more damage than good. If the wound is severely dirty, first gently rinse the wound with cold water. Do not use too much water pressure or scrub the wound, because it may cause the wound to bleed more. If there is a chance that the wound can be sutured, it is best to do as little as possible to the injury before the veterinarian arrives. Do not apply any medication, disinfectant or ointment to such a wound. These materials may cause tissue damage that can interfere with suturing and the healing process. In such cases, the less that is done to these injuries before the veterinarian arrives the better.

Fractured Limb

If you suspect that your horse has a fractured limb it is very important to call the veterinarian immediately. Report the horse's vital signs to the veterinarian. Often times these horses will go into shock due to the pain and immediate action is critical for the life of the animal. Attempt to keep the horse calm and do not administer any medication unless directed by a veterinarian. Certain tranquilizers can lower the blood pressure of the animal and cause them to go into circulatory distress. The injured limb should be stabilized to prevent further injury. A splint can be made out of PVC pipe that is split lengthwise. It is important to pad the injury well before applying the splint. A temporary splint can be made out of a pillow and several rolls of elastikon tape, Vet-wrap, or duct tape. If the horse needs to be transported it is important to protect them during the hauling procedure. If the injury is on a front limb, it is best to haul the horse backwards, so that if a sudden stop is to be made, the horse will be putting more pressure on his hind limbs rather than the injured limb. It is also important to wrap the uninjured limbs to give the horse extra support to the remaining three legs. Unfortunately horses were not designed to distribute their weight on less than

four limbs. Therefore, with a severe injury such as a fracture, often times the supporting limb may experience a bowed tendon due to the excessive weight bearing.

Eye Injury

Due to the large, protruding eye on the side of the head, eye injuries are common in horses. The most common injuries include foreign bodies (gravel, dirt, twig, hay, insects) in the eye tissue, corneal ulcers, conjunctivitis, and bruised eyelid. If you notice signs such as excessive blinking, tearing, discharging, swelling or reddening or a blue cloudiness to the cornea, call the veterinarian immediately. Eye injuries are very treatable if they are acted upon quickly. However, if they are left untreated, small problems can turn into huge problems and blindness may result. Do not apply anything to the eye without directions from veterinarian.

Choke

If you have ever witnessed a horse that has an obstruction in its throat, it is a dramatic situation that you will never forget. Choke is defined as an obstruction in the esophagus and can be caused by a horse that eats too quickly or does not chew properly. Also pelleted grain or unsoaked beet pulp can cause choke because these items expand when they are moistened. The signs of a horse that is experiencing choke included large amounts of saliva and food particles discharging from the nostrils. The horse cannot eat and may show signs of pain such as pawing, coughing and panicking. As long as the obstruction is only in the esophagus, the horse is not in grave danger, however choke is an emergency and should be relieved as soon as possible. Aspiration pneumonia is a complication from choke because the horse can inhale food particles that it is coughing up. As you wait for the veterinarian, remove all food sources. Warm water can be offered to the horse if it would like to drink. You can palpate the left side of the horse's neck for an abnormal lump in the esophagus. If you feel a lump you can apply a warm compress to the lump to aid in relieving the choke.

Tying Up

A horse that suddenly experiences extreme muscle cramping and pain is most likely tying up. Tying up is a common name for a condition known as exercise related muscle degeneration. Clinical signs of tying up include a sudden reluctance or inability to move and the muscles (especially the hindquarters)

become hard and tense. The horse may experience excessive sweating, resting heart rate over 60 beats per minute, and resting respiratory rate over 30 breaths per minute. If you suspect your horse is tying up, immediately dismount, stop working the horse, keep the horse as still as possible, and call your veterinarian. Do not administer any medication unless directed by your veterinarian. If the episode is acted up quickly, most horses recover fully, however the urine may be discolored for the first 48 hours. If the urine is very dark in color, this indicates kidney damage and the horse should have a follow up visit with the veterinarian.

Colic

One of the most common emergencies that we encounter are colics. Colic is a term to describe any abdominal pain in a horse. There are many causes of colic and they fall under three main categories. The first category is due to intestinal dysfunction such as increased gas production, impaction, smooth muscle spasms and paralysis of gut motility. A second category is due to intestinal accidents such as displacements, torsions, and hernias. The final category includes enteritis and ulceration of gut which may due to inflammation, infection or lesions. Signs of colic can vary and may include looking at the flank, pawing, kicking or biting at sides, stretching out to urination, yet not voiding, rolling, decreased gut sounds, increased heart rate and lack of defecation. If you suspect your horse is experiencing colic, first remove all food sources from the stall and call your veterinarian immediately. As you are waiting for the veterinarian to arrive, monitor vital signs such as temperature, pulse and respiratory rate. The horse should be watched closely and keep him calm and comfortable. It is ok for the horse to lie down, however it should not be allowed to roll.

Items to have on hand in an Equine first aid kit

- Important phone numbers, veterinarian, horse ambulance and farrier.
- Thermometer
- Stethoscope
- Saline Solution to rinse eyes
- Leg wraps
- Cotton Wraps
- Vaseline
- Wound ointment
- Scissors

- Electrolytes
- Dilute Iodine solution
- Twitch
- Hoof pick
- Fly lotion
- Hoof pick
- Ophthalmic ointment
- Latex gloves
- Syringes
- Sterile Needles
- Antibiotic spray
- Epson Salts

It is also a good idea to keep a some medication on hand. Do not administer any medication with out the direction of a veterinarians. Phenylbutazone and banamine are both nonsteriodal anti-inflammatory agents and aid in controlling inflammation and pain.