

## **Do I have an emergency? A horse owner's guide to basic first aid and physical examinations**

Most horse owners will experience some type of emergency with their horse at some point. Lacerations, colic, severe lameness, and other medical emergencies happen all too commonly with our animals. However, there are some steps that you can do on the farm and some information that you can give to your veterinarian to help guide the appropriate treatment and determine the urgency of the emergency.

### **Building a Basic First Aid Kit**

There are some essential items for every horse owner to have on hand in case of injury or illness. Below is a list of essential items to have in a first aid kit, but is not an exhaustive list for items that may be useful.

#### Physical Examination Instruments:

- Stethoscope
- Watch with a second hand
- Thermometer

#### Bandage Materials:

- Standing wraps (quilts and wraps) of appropriate size
- Roll cotton
- Gauze 4"x4" squares
- Non-adherent pads
- Vet wrap

#### Other Handy Items

- Clippers
- Surgical scrub and solution
- Sterile saline
- Gloves
- Sharp bandage scissors
- Cups or containers
- Extra halters and lead ropes
- Towels
- Duct tape
- Tape measure

There are certain medications that can also be handy to have on hand in case of an emergency. These may include phenylbutazone, flunixin meglumine (banamine), or sedatives. However, these have to be obtained from a veterinarian. And always remember, don't give your horse any medications in an emergency situation without consulting with your veterinarian first and only use them under their guidance. Giving certain medications in emergency situations could make the horse's condition significantly worse or diagnostics difficult if

given before veterinary consultation.

### **Performing a Physical Examination**

Knowing how to perform a basic physical examination is a skill every horse owner should know. It is also important to know your horses' normal vital signs. Physical examination parameters have a wide range of normal values, and it is useful to compare vital signs in an emergency to your horses' known normal values. As a general rule, normal heart rates range from 32-44 bpm, respiratory rates between 8-16 bpm, and temperature between 99.5°-101.5°F.

To take your horse's heart rate, place your stethoscope just behind their elbow on the left side of their chest. You will hear a "lub-dub", which constitutes one heart beat. You can also feel their pulse to take a pulse rate. Feel under the round aspect of their jaw and you can find the round artery and vein. Place light pressure with your fingertips until you can feel a pulse.

To take your horse's respiratory rate, you can watch the rise and fall of their chest or abdominal wall with their breaths. In normal horses it may be a subtle movement. You could also place a piece of glass in front of their nostrils and watch it fog when they exhale, however some horses will snort at this and increase their respiratory rate.

To take your horse's temperature, stand to the side of their hindquarter. Gently lift their tail, and insert a lubed thermometer into their rectum. If you have a mercury thermometer, be sure to attach it to their tail with a clip and leave it for a full 2 minutes. Digital thermometers are quite quick and you can just hold it until it finishes. Make sure you stand in a safe position, as some horses will kick during this.

Some other parameters that are good to look at include mucous membrane characteristics. To look at their mucous membranes, gently flip their upper lip to look at their gums. Normally their gums should be light pink and moist. In addition, you can check a capillary refill time (CRT), which is an indicator of vascular perfusion. To do this, press your thumb into their gum until the tissue underneath it blanches white. Then release the pressure and count how many seconds it takes for the pink color to return to the area. Normal CRT is less than 2 seconds. Gut sounds are another parameter that is great to listen to, as it can vary significantly between horses and during different times of the day. The best way to learn what normal gut sounds are like is to listen to normal horses. This parameter is particularly useful in colic cases, where gut sounds may be increased or decreased. Lastly, digital pulses are a key parameter, particularly in laminitis or lameness cases. To palpate the digital artery, feel down near the horse's coronary band for a group of round structures on the outside of their limb. Palpate gently over this area to see whether you feel a pulse. It is common to not feel digital pulses in normal horses, but very strong pulses to their hooves can indicate a problem.

By performing a brief physical examination on your horse, you can provide important information to your veterinarian before they are able to reach the farm, and give some direction as to whether there is any treatments that can be initiated immediately. However, always be sure to contact a veterinarian before administering any medications or starting treatment.