

Assessment of the Vital Signs

Vital Sign	Normal for Average Adult Horse, at rest
Body Temperature	97 to 101.5 degrees
Heart Rate	32-44 beats per minute (BPM)
Capillary Refill Time (CRT)	< 2 seconds
Gum Color	Pink and moist
Respiratory Rate	8-20 breaths per minute
Skin Tenting	< 2 seconds using upper eye lid

The vital signs give an indication of the overall state of health.

The results you obtain when you suspect a horse is ill will be much more useful if you compare them to the horse's own "normals".

Body Temperature:

Temperature might also increase when a horse is exercised, excited, in pain, diseased, or is in a hot, humid climate.

1. Lubricate the tip of the digital thermometer with petroleum jelly. Insert into rectum while standing off to the side (so you don't get kicked, should the horse kick out).
2. Thermometer will beep when the temperature is reached.
3. An increase in temperature itself is not a cause for alarm.
4. A 2-degree increase needs continuous monitoring.
5. 4 degrees above a horse's normal is cause for concern.

Heart Rate:

1. Listen with a stethoscope behind the left elbow on the chest. You may need to push forward under the elbow.
2. The heart will make a **lub-dub** sound which is **one beat**.
3. Pulse rates can also be taken anywhere an artery lies close to the surface of the skin.
 - a. The best location is the mandibular artery on the inside of the horse's jawbone and is the thickness of a pencil.
 - b. Just above the fetlock is the palmer digital artery.
4. Hold your index and middle finger over the artery. Don't put too much pressure with your fingers or you will not feel anything. DO NOT use your thumb; you risk getting your own reading confused with the horse's.

Capillary Refill Time (CRT):

CRT is the time it takes for blood to return to blanched tissues.

CRT is an indicator of circulation problems like shock, dehydration, or toxic reactions.

1. Place the fingertip on the gum for 2-3 seconds, pressing hard enough to create a white spot on the pink surface.
2. Release the pressure and count how many seconds pass until color returns.
3. If the CRT is prolonged, the horse is showing circulatory impairment and may be in shock or have colic.
4. 3-4 seconds or longer indicates problems.

Gum Color:

1. Gum membranes should be pink and moist.
2. Pale membranes need monitoring. Persistently pale membranes indicate the beginning stages of colic.
3. Splotchy, muddy membranes may indicate a toxic situation.
4. Blue membranes can indicate cyanosis.

Respiratory Rate:

1. Watch the rib cage. You should see a regular, rhythmic pendular motion. Count every time he breathes **in and out as one breath**.
2. Respiration increases with hot, humid weather, exercise, fever, pain, pregnancy, age, and excitement.
3. The respiration rate should never exceed the heart rate. If they match this is an indication of thumps. Seek veterinary assistance ASAP.

Skin Tenting:

The pliability and resiliency of the skin is a good indication of the level of hydration.

1. Pick up a fold of skin on the upper eyelid and then release it. It should return to its flat position almost instantaneously, within a second or two.
2. If the skin remains peaked for more than two seconds, this is termed a “standing tent” and indicates some degree of loss of body fluid.
3. If the standing tent is 5 to 10 seconds or longer, the horse is suffering from severe dehydration and needs immediate veterinary attention.

Intestinal Sounds:

The abdomen usually produces sounds indicating roughage and fluids are moving in the intestines.

1. Put your ear or stethoscope to your horse’s flank. With practice, you should be able to determine if the gurgling, gaseous sounds are normal, in excess, or absent.
2. The mixing sounds are normally short in duration (2-5 seconds) and rapid in rate (2-5 per minute).
3. The propulsive-retropulsive sounds are 15-30 seconds long and occur every 2 to 3 minutes post feeding.
4. Gas sounds like wind chimes.
5. Hypermotile sounds occur with an irritated gut.
6. Excess gut sounds are generally less indicative of a problem than the absence of sounds.
7. You may not hear any sound if the gut quits moving.

Instruction Sheets in the Equine First Aid Kit

The following instruction sheets are in this kit:

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| 1. Acute Lameness | 9. Hives |
| 2. Assessment of Vital Signs | 10. Shock |
| 3. Choke | 11. Snake Bite |
| 4. Colic | 12. Wounds |
| 5. Equine Medicines | |
| 6. Euthanasia | |
| 7. Exercise Intolerance | |
| 8. Eye Injuries | |