

Physical Exam of the Horse

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Stand back and observe: Recognizing the healthy horse

When performing a physical exam on a horse, the first and often most important thing to do is to study the horse's appearance and demeanor. You want to see if the horse looks alert and comfortable, or lethargic and depressed. Next, you should look for any signs of pain or illness. When you start to look at the head, you want to make sure the eyes are bright, and that there is no discharge coming from the horse's eyes or nose. You should check for how they are breathing, eating, defecating and urinating. Also observe whether the horse's coat is shiny or dull.

Vital signs

Learning how to take your horse's vital signs can help you detect when there is a problem (e.g. illness or injury). Recording your horse's vital signs will also allow you to pass valuable information along to your veterinarian in cases of emergency. Periodically monitoring and recording your horse's vital signs (when the horse is healthy) and understanding the normal ranges (Figure 1) will help you recognize and address potential health issues. Assessing the horse's vital signs generally includes checking temperature, pulse (heart rate), and respiration, or TPR, but additional, important components of a thorough physical exam are described below.

Checking temperature in the horse

The best way to take a temperature in the horse is rectally. It is the most common way of determining whether or not a horse has a fever. The easiest thermometer to use is the *digital* thermometer. Digital thermometers can be purchased inexpensively from an equine tack or veterinary supply catalog or from your local pharmacy. To take the horse's temperature, first, you should cover the end of the thermometer with a lubricant (e.g. medical jelly). After you have made sure that you are standing close to the horse's left side at the horse's hindquarter, you will hold the tail to the side. This should help you see the anus. You carefully insert the thermometer, and rotate it as you push in about 2 or 3 inches. Wait up to one minute until the reading is finished (some thermometers will give a quicker reading).

Finding the horse's heart rate or pulse

To find the heart rate, you can use a stethoscope to listen to the horse's heart. You will find the heart rate behind the elbow, on the left side of the horse and along the girth line. Sometimes, it is easier to get a heart rate if the horse's left foot is positioned slightly in front of the right. If you do not have a stethoscope handy, you can also find the heart rate by putting your fingers on the facial artery underneath the horse's jaw, or the digital artery at the back of the horse's pastern. For either method, you will count the number of beats you hear or feel for one minute. It is also

acceptable to count the number of beats for 30 seconds and then multiply the number you get by two to get the heart rate. Equine heart rate monitors can also be used to measure and track heart rate in horses. Some of the newer heart rate monitors have a built-in GPS feature and/or computer interface which allows data to be easily collected, stored, and analyzed. Heart rate monitors may be especially helpful for exercise and training/fitness applications and are being used more frequently in horse behavior and welfare research.

Checking for respiration

Respiration will increase during exercise and discomfort or pain. It will also decrease when the horse is at rest. The best way to assess the respiration rate is to watch the horse's flank. You should watch the flank rise and fall, and count each rise and fall as one breath. How many times you count in one minute will give you the horse's respiratory rate.

Inspecting for good blood flow and checking hydration in the horse

To make sure blood is circulating properly all throughout the body, you want to check the color of the gums. All you need to do is lift up the top lip of the horse and make sure that you see a medium pink color on the gums. The easiest way to assess circulation is to check **capillary refill time (CRT)**. This means that you will press your finger against the gums for a few seconds. As soon as you let go, the area will be white. Now you want to count how many seconds it takes for the pink color to return. However many seconds you count is the capillary refill time of that horse. Another thing that you can monitor is the hydration status of the horse by performing a **skin pinch test**. Pick an area of skin where the neck ties into the shoulder. Use your thumb and pointer finger to gently pinch some skin and hold it out away from the horse's body for a few seconds. Let go, and wait for the skin to fall back in place. If it does not fall back in place within two seconds, this may be a sign that the horse is dehydrated.

Checking for lameness

Lameness is defined as an asymmetry in gait, a problem with how the horse moves or stands. Lameness in horses has many causes including musculoskeletal injuries or hoof problems, neurological disorders, or pain and inflammation resulting from these or other conditions. To evaluate a horse for lameness, you should watch how the horse moves at the walk and trot. You should also watch how the horse trots in a circle and on a hard surface. Hoof testers can be used to apply pressure to areas of the foot to help detect and locate pain in the horse's feet.

Listening for gut sounds

To help assess whether your horse's gastrointestinal tract is functioning normally, you can listen for gut sounds (periodic gurgling sounds heard as food is moving through the digestive tract) by placing your ear over the horse's right and left flank. Lack of gut sounds or extremely active gut sounds may indicate a problem particularly when taken in context with other vital signs and general observations of the horses' appearance and behavior. For example, a horse experiencing colic may produce little to no manure for some time, have little to no gut sounds, have an

elevated heart and respiration rate and show other signs of discomfort, such as getting up and down frequently, pawing, looking at its sides.

Figure 1. Reference ranges for vital signs in the horse.

	Adult	Newborn
Temperature	99-101°F (37.2-38.3°C)	99.5-102.1°F (37.5-38.9°C)
Pulse	28-44 beats per minute	80-100 beats per minute
Respiration	12-24 breaths per minute	20-40 breaths per minute
Mucous membranes	Moist, healthy pink color	
Capillary refill time*	Two seconds or less	
Gut sounds	Gurgling, gaslike growls, “tinkling” sounds (fluid), and occasionally “roars”	

Table adopted from The Horse.

References

Normal Horse Vital Signs and Health Indicators

<http://www.thehorse.com/articles/31854/normal-horse-vitals-signs-and-health-indicators>