



# Keeping Your Horse Healthy

## Signs of a Healthy Horse

*E. Sestric and L. Coates-Markle*

It's important for horse owners to recognize the signs of a normal and healthy horse. An awareness of normal signs of health for individual horses will allow you and your veterinarian to determine the best care for your horse.

In the wild, the horse is subject to many natural stresses, including extreme weather conditions and the frequent lack of water and food. The horse has evolved as a free-roaming, free-grazing herbivore. The domesticated horse, by contrast, is subject to the confines of stall and pasture life and its owner's feeding schedule (often twice per day), and it usually is dependent on its owner for regular exercise.

By becoming familiar with the horse's natural environment and lifestyle, you will better be able to assess your horse's health. This article will help you recognize the physical signs of health, including:

- Behavior
- Eating and appearance
- Vital signs

### Behavior

Behavior is the most telling sign of a horse's health or illness. Behaviors commonly associated with

illness are signs of pain, distress, depression, lethargy, or anxiety. Every horse has a different personality and variable behaviors. The horse should, however, be very consistent in behavioral patterns. Any change alerts you to a problem.

Other behavioral considerations include general attitude/expression, socialization with both humans and horses, and behavioral vices such as cribbing or stall weaving. General attitude/expression is one of the most important factors in your horse's health, and it is specific to each horse.

### Eating and appearance

#### *Food and water*

Eating patterns and attitude are particularly important. Horses are best adapted for continuous grazing, spending the greater part of their day grazing. It's important to notice your horse's eating patterns in relation to its schedule. The horse is subject to its owner's schedule, for better or for worse. A horse that refuses to eat or drink is a cause for concern. This, combined with other unusual behaviors, such as difficulty urinating or difficulty eliminating feces, is a significant cause for concern.

The typical horse eats 2–3 percent of its body weight in feed and drinks 5–12 gallons of water per day. Normal urination for a 1,000-pound horse is about 1 to 2 gallons per day and varies with

the type of feed and season. Normal fecal elimination—without pain or discomfort—also varies with type of feed. The typical horse eliminates several times per day. The most important signs are consistent quality of fecal balls and ease of elimination. Healthy fecal balls are hay-colored and moderately solid. Continuous diarrhea is a serious concern and requires consultation with a veterinarian.

Dropping food or grain can indicate teeth problems, which may require teeth floating. When examining the teeth, it's important to notice the ridges, grooves, and points of the teeth. Also be sure to check the tongue and inner cheek for any scarring or ulceration caused by the teeth. Weight loss and general unthriftiness are visible signs of possible teeth problems. A low or high body weight can indicate other health problems, which may require further information and consultation.

#### *Weight and body condition*

Your horse's weight is a factor of breed, height, and structure. The horse should be in moderate to good condition depending on season, exercise requirements, diet, and metabolism. It also should be of a consistent weight year-round. Extreme and/or rapid weight loss is a cause for concern.

The Body Condition Chart (next page) will help you determine your horse's condition. A horse that

falls below moderate may need additional nutrients in its feed, or may require veterinary care. Possible causes of weight loss or low weight include parasites, inability to chew food, and insufficient energy or nutrition in the diet.

### Hair coat, hoof condition, and movement

Generally, your horse's hair coat should be slick and never extremely dull or rough. The winter coat will be longer and should shed out rapidly in the spring. Poor hair coat condition may indicate nutritional deficiencies or internal parasites. Indications of marginal health include rough or dull coat, slow shedding, no shedding, unusual baldness, and general unthriftiness.

When examining the hooves, it's important to remember that the hoof reveals past care and nutrition. The ideal hoof should be hard, with a slick, shiny, slightly waxy surface. The outermost layer of the hoof serves as insulation against dehydration and thus prevents drying and cracking. The frog should be pliable—not dry and cracked. The frog supports the hoof, and pressure on the frog from walking promotes blood circulation throughout the foot. Questions regarding the health of the hooves can be directed to a farrier or your veterinarian.

Assessment of the horse's natural mobility at all gaits also is important. The horse should be able to move freely without pain. Signs of painful movement are bobbing of the head or limping at any gait. When a change in mobility occurs, it's best to consult your veterinarian. There can be many causes for such a change, ranging from eye injury to a condition of old age such as arthritis.

### Vital signs

Vital signs are good indicators of physical health. Changes in body temperature or any other vital sign may require immediate veterinary consultation. The most important requirements are to be familiar with your horse's normal vital signs and to be able to measure each one.

### Body Condition Chart

Condition	Description
Poor to Thin	Animal emaciated; spinous processes and ribs easily discernible; tail head prominent; very little or no fatty tissue can be felt.
Moderate	Back is flat, with or without slight crease or ridge of fat down the back; fat felt around tail head and over ribs.
Fat	Crease down back; obvious filling of fat between ribs; fat around tailhead soft; buildup of fat on neck, inner thighs, and shoulders.

*Description of condition system adapted from Henneke et al. (1983).*

Vital signs include:

- Temperature
- Pulse
- Respiration
- Capillary refill time
- Mucous membranes
- Skin pliability

Temperature, pulse, and respiration (TPR) vary slightly among horses, depending on age and physical fitness. Young foals tend to have a higher TPR than adult horses.

Examine the mucous membranes (nasal passage, eyelids, inner lips, and gums) for clear, bright color and moisture. You can check the capillary refill time (the time it takes for color to return to gum tissue) at the same time. Press your thumb firmly against the gums for 2–3 seconds. Color should return within 2–3 seconds after you release pressure; longer than 3 seconds may indicate dehydration and requires further evaluation.

Skin pliability can be checked by pinching the skin (usually on the neck). The time for return to normal indicates the dehydration level. The skin should feel pliable and soft, not leathery or stiff. Significant

variation above or below normal is cause for concern and may require veterinary consultation or care.

### Discharges

While you're checking the vital signs, look for abnormal discharges from your horse's nose and eyes. Both the nasal passage and eyes (tear ducts) will have some normal watery discharge. Signs for concern are a yellowish color, an odor, or thickening of the discharge. Discharges other than normal waste materials from the rectum and vulva or penis also are a cause for concern and need to be evaluated.

It's important for the horse owner to be able to identify signs of a healthy or unhealthy horse. If your horse shows one or more signs indicating a problem, don't hesitate to call your veterinarian. She or he will best be able to help you if you can relay your concerns, your horse's vital signs, and its behavior.

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### For further reading

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Krider, and B.F. Yeates, "Relationship Between Condition Score, Physical Measurements, and Body Fat Percentage in Mares." *Eq. Vet. J.* 1983. 15:371–372.

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#### Normal vital signs

- Temperature: 99.5–101.5°F
- Pulse: 35–57 beats per minute (average 44)
- Respiration: 8–15 breaths per minute
- Capillary refill time: 1–2 seconds
- Mucous membranes: bright, clear pink, moist
- Skin pliability: 3 seconds

# First Aid for Wounds in Horses

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Wounds in horses commonly are the result of kicks or bites from other horses, falls, or collisions with fencing or jumps. Not all injuries are visible; therefore, always evaluate an injured horse carefully. Except for very minor injuries, you may need to call a veterinarian.

Wounds below the hock and knee require careful treatment to prevent complications. This area is made up primarily of bones, tendons, and ligaments. It has few muscles and therefore is sensitive to debilitating injury.

When caring for an injured horse, be aware that even a normally docile horse may respond violently when faced with pain. Protect the handler. If the horse cannot be constrained safely, wait until a veterinarian is available to tranquilize it.

## Open wounds

Types of open wounds include incisions, lacerations, tears, punctures, penetrating, and abrasions.

Incisions have clean, straight edges and often bleed freely with little associated bruising. They typically heal quickly and simply if handled properly.

Lacerations and tears have torn edges, and often have bruising as well. There may be tags or flaps of skin, which must be handled expertly for proper healing.

Puncture wounds often are more severe than they appear, as only a small, single opening may be visible. A veterinarian should examine this type of wound and administer a tetanus booster.

Abrasions are superficial and are the result of scraping against an irritating surface. Saddle and girth sores fit into this category. There also may be bruising underneath, especially in the limbs, which have little soft tissue to protect the bones and ligaments.

## Treatment

The priorities in treating open wounds are to control hemorrhage, clean the wound, and promote rapid healing.

If a wound requires stitching, handle it carefully and have it stitched by a veterinarian as soon as possible. This normally should be done within 6 hours; however, a strict time limit is not always appropriate. Do not apply any type of cleansing agent other than plain water prior to the veterinarian's arrival.

Hemorrhaging aids in cleansing the wound and is helpful if it is not profuse. If a large vessel is severed, however, it must be closed before excessive blood loss occurs. In many cases, you can stop bleeding by holding a clean dressing firmly over the wound. Silver nitrate powder and absorbable gelatin sponges can be applied topically to control hemorrhage. Use a tourniquet *only* as a last resort.

Simple hosing often is the best way to cleanse a wound. Hosing produces a constant flow of water to rinse away debris. However, avoid excessive pressure because it could push particles deeper into the wound or open new tissue.

After the initial hosing, use clean cotton to apply a solution of mild skin antiseptic diluted in warm water. After the wound has been cleansed, you may need to remove additional foreign material.

Bandaging a wound immobilizes the region and protects the wound from contamination and further trauma. However, wounds on the upper limbs and body may heal best if not bandaged.

Large wounds or puncture wounds require drainage. You can accomplish this by leaving the wound open, or by establishing drainage through rubber tubing.

Systemic antibiotic treatment may be necessary in some wounds. Also, anti-inflammatory drugs may reduce inflammation, swelling, and pain. In many cases, the veterinarian may give a tetanus antitoxin, especially if the

horse's vaccination record is not up to date or is unknown.

## Healing

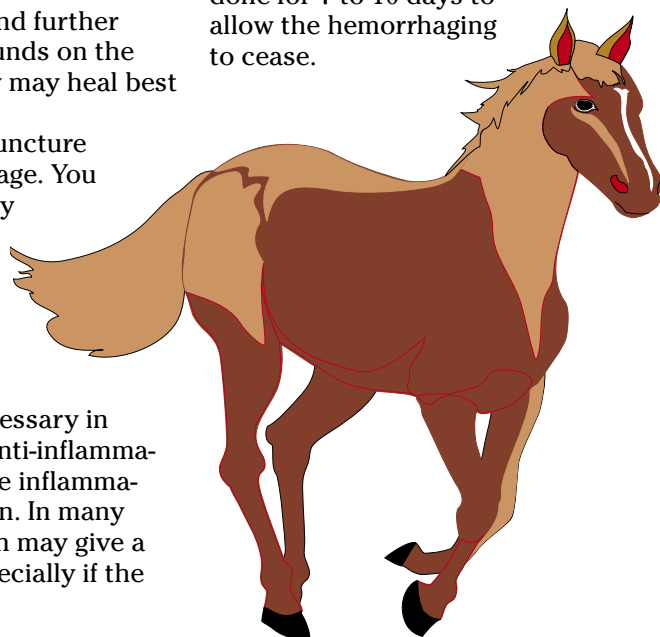
If an incised wound is not contaminated and the edges of the skin can be brought together, the edges will heal together over the wound. This kind of healing is called primary intention.

If the wound cannot heal by primary intention, it must undergo a process of granulation, contraction, and multiplication and migration of the skin edge cell walls. This type of healing is referred to as secondary intention. If extensive granulation tissue forms on the wound, it is referred to as proud flesh and must be removed to promote proper healing.

## Closed wounds

Closed wounds include bruises, contusions, and sprains; and muscle, ligament, and tendon tears or rupture. Contusions occur when a blunt force causes hemorrhage, bruising, and edema without breaking the skin. Swelling, heat, and pain will be present at the site of the injury. Hematomas (localized swellings filled with blood) may form under the skin.

To treat a contusion, immobilize the injury and apply ice or cold hosing to reduce heat and swelling. After 24 or more hours, you also may apply heat to aid fluid absorption. Large hematomas may require draining, but this usually is not done for 7 to 10 days to allow the hemorrhaging to cease.



## Electric shock

Electric shock may occur from contact with electric fencing, overhead cables, or other sources of electricity; or from lightning strike. Electric shock usually results in death. There may be little external evidence of injury, except perhaps some singed hair along the course of the current. Surviving animals appear dazed or unconscious with slow, labored breathing and weak, slow pulse. Paralysis also is common.

Provide adequate bedding, food, and water for the recovering horse. Support bandages on all limbs may help if the animal is weak or has some paralysis. Recovery may take hours or days. In some cases, permanent paralysis or blindness may result.

## First-aid kit

A well-stocked first-aid kit always should be available with the horse. The kit should contain items for treating minor wounds and for performing temporary procedures before the veterinarian arrives in more serious injuries.

The first-aid kit should contain, at minimum, the following items:

- Antiseptic cleansing agent
- Antiseptic ointment
- Antiseptic spray
- Bandages—quilts and wraps, disposable wraps, and cotton
- Nonadhesive sterile dressings

- Scissors—blunt ended
- Commercially prepared poultice
- Thermometer—with string and clip attached to avoid loss inside horse's rectum
- Watch with second hand for taking pulse and respiration  
Know your horse's normal temperature, pulse, and respiration rate, and keep these records with the first-aid kit. Also keep other pertinent information regarding the health history and management of the horse.

The normal temperature range for adult horses is 99.5–101°F. A rise of 1.5°F or more above normal is cause for concern.

An adult horse's normal respiration rate is 8–15 breaths per minute. The normal resting pulse rate is 35–57 beats per minute.

## Conclusion

Anyone caring for horses should be familiar with the animals' normal behavior. Monitor any deviation and consult a veterinarian. Attend to wounds promptly since even minor scrapes and cuts can cause extensive swelling and pain, especially on the lower limbs. Untreated wounds can easily become infected.

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## OSU Extension publications

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