

Equine Wound Care

Because of their flight or fight nature, horses often suffer minor and major scrapes, cuts, and lacerations

Overview

Due to their inquisitive nature, a well-developed flight response, their large size, and that they are commonly confined in areas with potential obstacles such as metal or wire, horses tend to be accident prone, making both minor and major wounds a fairly common occurrence. Wounds can range in severity from simple scrapes or cuts to more extensive punctures or lacerations involving large areas of the body (e.g., after getting caught in barbed wire).

At first glance, the severity of your horse's wound(s) can be deceiving. Large wounds often bleed profusely and appear to be worse than they are; but if they only involve superficial structures, then these wounds will typically heal with minimal scarring in only a few months. In contrast, small wounds overlying (or in close proximity to) a joint or tendon, for example, are far more serious due to the potential for the underlying structures to be involved and become infected.

Be Prepared

Effectively providing first aid to an injured horse necessitates having access to the proper materials. A fully stocked first aid kit in an easily accessible location is recommended for every barn. Kits can be purchased pre-assembled or can be easily created to meet individual owners' needs. Essential items include, but are not limited to:

- Clean towels or sterile cotton rolls to stop a wound from becoming more contaminated and to apply pressure to stop bleeding;
 - Vetwrap or stable wraps to hold the towels or cotton in place;
 - A flashlight to closely examine a wound;
 - Bandage scissors, and;
 - Digital thermometer and stethoscope (to monitor horse's vitals for indications of infection).
- Up-to-date vaccination records for all



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horses in the barn should also be readily accessible. Of particular interest is the tetanus vaccine status. Tetanus is a potentially fatal neurological disease caused by toxins produced by the bacterium *Clostridium tetani*. According to the American Association of Equine Practitioners (AAEP), tetanus is a core vaccine that should be administered annually.

Immediate First Aid

Place your horse in a quiet, well-lit area to examine the wound. Be cautious as pain and fear can cause even the quietest, most predictable horse to behave in ways it normally wouldn't. Use clean or sterile towels to apply pressure directly to the wound to stop or slow the flow of blood. Try to avoid repeatedly wiping blood from the area as this will result in additional trauma to the tissues, slower clotting, and might contaminate the wound with foreign materials (such as grass, dirt, or manure). Once bleeding is under control, attempt to locate

the exact anatomic location of the wound.

It is not advisable to apply tourniquets or cold hose wounds. This latter intervention in particular can increase wound contamination and force foreign material even farther into the wound, which will ultimately delay wound healing. In most cases, less is more. Simply wrap the wound to minimize additional contamination, apply steady pressure to slow or stop the bleeding, keep your horse quiet, and wait for your veterinarian. Not all wounds require a frantic call to your veterinarian, but most wounds will benefit from professional evaluation.

Call Your Veterinarian

It is preferable that most wounds are examined sooner than later, particularly in cases involving important underlying structures (such as tendons), those that are contaminated with foreign materials, and if sutures are necessary. Not all wounds require suturing (stitching), but wounds that would benefit from suturing should be

examined within a few hours of the injury.

Profuse bleeding is another indication that your horse requires more immediate attention from your veterinarian. For horses, the term, "profuse" refers to a large volume of blood. Horses have approximately 10 gallons of blood and can lose approximately 4 gallons and still survive (with aggressive treatment). Any amount of blood flowing freely from a horse will appear to be profuse to even the most experienced horse owner, so think in terms of buckets of blood to help put the situation in perspective. If bleeding does not appear to be abating or cannot be staunched with compression, an artery could be severed that will require surgical ligation (i.e., the process of tying off a blood vessel with suture material).

Serious wounds generally require advanced management. Some horses will need to be referred to a local clinic and placed under general anesthesia to explore and treat the wound. If the wound involves a joint, tendon, or tendon sheath, advanced surgical repair or extensive lavage (washing) of the wound could be indicated.

Ultrasonography and radiographs

(X rays) might be necessary to assess the integrity of nearby structures, to rule out fractures or tendon injuries, or even to locate larger foreign bodies (e.g., pieces of wood).

Wound Management

In general, all wounds are treated similarly. The wounds are cleaned and debrided, either closed with sutures or left open to heal, and bandaged. To clean the wound, a scrub solution such as chlorhexidine or povidone-iodide is used. Contaminated wounds heal slower than clean wounds and are associated with more complications (such as infection). Thus, foreign material and dead tissues are removed from the wound to promote healing. If necessary, the wound is sutured, but this is not always appropriate. Finally, the wound is bandaged to keep it clean. A variety of bandaging materials is available and selection will depend on the specific wound. Typically a three-layer bandage is selected that uses a special type of bandage directly on the wound that is held in place with a layer of cotton under a layer of Vetrap (or similar product). Depending on the horse and

FAST FACTS

- Wounds are common in horses.
- Have a stocked first aid kit and vaccination records available for emergency situations. Both need to be easily accessible in the barn.
- Place your horse in a quiet environment to try and stop the bleeding, then evaluate the wound and wait for your veterinarian (if necessary).
- Wounds can be deceiving (they might appear worse than they are), but most will benefit from a professional assessment.
- The approach to wound management is essentially the same for any type of injury: clean, bandage, and monitor.
- Monitor frequently for complications such as infection, excessive scar tissue formation, prolonged healing, and persistent lameness.

the extent of the injury, post-wound repair care could also include local application of antibiotic creams or ointments, systemic antibiotic therapy, exercise restrictions, and daily or near-daily assessment of the wound for signs of infection. Development of excessive scar tissue (also called proud flesh) can prolong healing. Also watch for persistent lameness. ◀

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