

Horse Wound Care



First-aid tips to ensure your horse heals as fast as possible.

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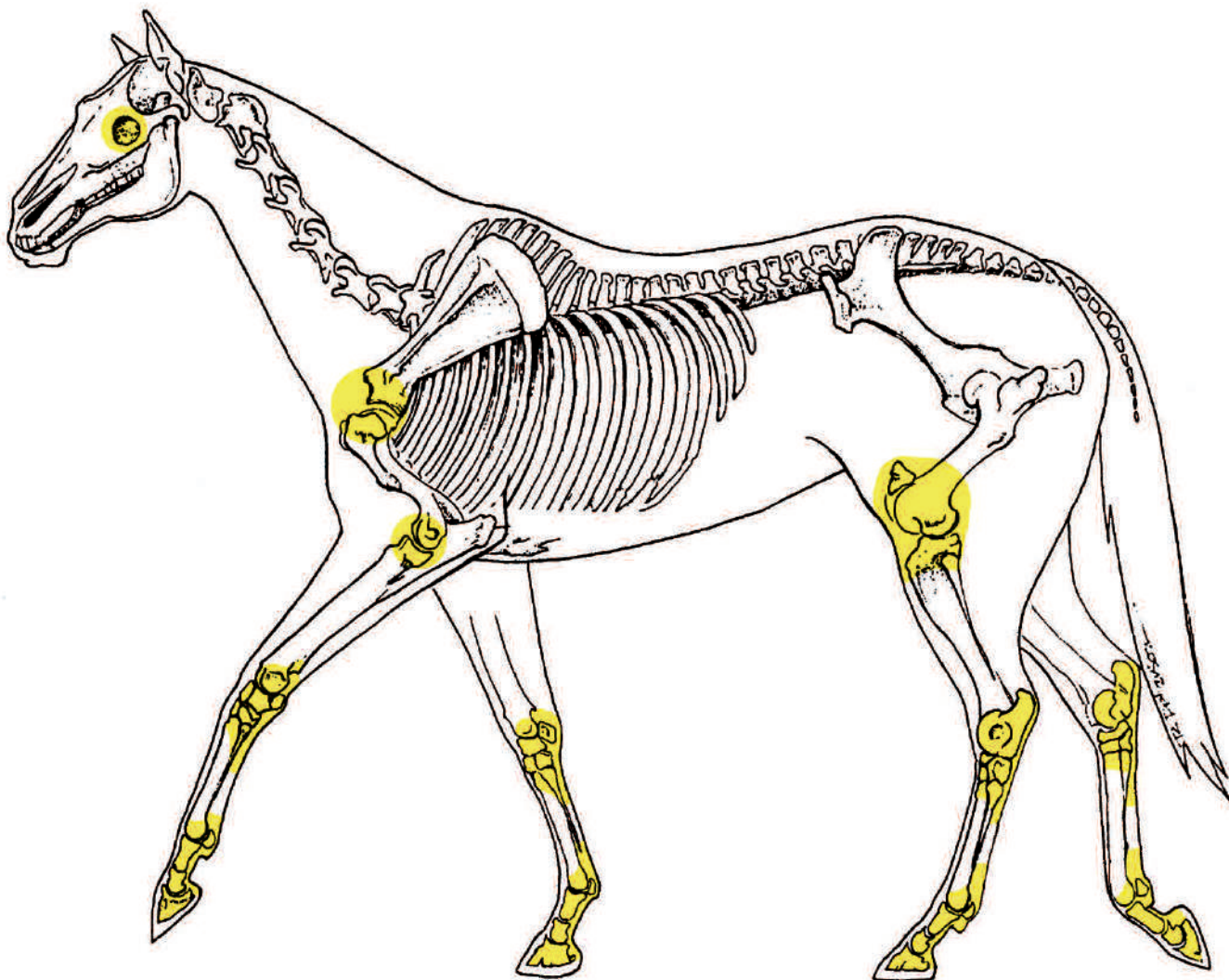


ILLUSTRATION BY AQHA

Any injury, especially puncture wounds, in the highlighted "danger zones" that include the eye and extend over joints and synovial areas should be immediately checked by a veterinarian. If the injury has entered a synovial cavity and is not treated, the horse can sustain irreparable harm.

THE CUT (ON PAGE 3, BOTTOM LEFT) WAS A SMALL, SEEMINGLY minor scrape that most horse owners would treat themselves. In fact, the owners treated the wound themselves. They cleaned the wound and administered penicillin and phenylbutazone. Four days later, the horse became lame. The condition worsened, and three days later, they were referred to Dr. Ted Stashak at Colorado State University's vet teaching

hospital. The horse was diagnosed with septic arthritis of the coffin joint and also suffered laminitis in his other forefoot from uneven weight bearing.

"It was a case that could have been managed with a high degree of success with less cost had it been brought in shortly after the injury to have it examined," Dr. Stashak says.

Barring the advent of Bubble Wrap suits, horses will sustain



PHOTO COURTESY TED STASHAK

The horse's owners noticed yellow fluid coming from this three-day-old wound and brought the horse to Colorado State University for treatment. An examination proved the digital synovial sheath had been pierced.



PHOTO COURTESY TED STASHAK

This seemingly minor wound resulted in severe and permanent injury to the horse.

FIRST-AID KIT

The easiest way to be ready for any emergency is to have a well-stocked first-aid kit available at all times. Here are recommended items to have in the kit:

- Clippers or a guarded razor
- 60 mL syringe and 19-gauge needle or spray bottle to wash out wounds
- Telfa dressings or antimicrobial dressing such as Kerlix AMD
- Antiseptic soap to clean around wound
- Wound cleaner, like diluted povidone iodine
- Gauze
- Elastic gauze, like Vetrap
- Padded cotton
- Betadine or triple antibiotic ointment
- Tongue depressors to apply ointment
- Scissors



ANDREA CAUDILL

Some essential items for wound first-aid.

WRAP

If leg wraps are incorrectly applied, they can cause damage to the leg. Dr. Chris Morrow of Mobile Veterinary Practice in Amarillo, demonstrated, step-by-step, how to correctly apply a bandage to a minor mid-leg wound.



1 Make sure you have help and some sort of restraint. In this case, it's a rear-leg wound, and it's dangerous enough to be behind the horse, then add working on an area that's already sore. Begin by prepping the wound area by clipping the hair around the wound, then applying a non-stick Telfa pad. I don't tend to put anything on the wound as far as dressings, unless they were grossly contaminated, he said. A clean, dry bandage allows me to know what's coming out of the wound.



2 Apply an elastic bandage to hold the pad in place. Wrap from the inside of the leg to the outside – counterclockwise on left legs and clockwise on right legs. When you put the bandage on, make sure that everything stays smooth.



3 The next layer is absorbent rolled cotton. This will help prevent injury from a too-tight bandage. Make sure it is flat with no wrinkles

injuries no matter how alert their owners are. Knowledge and preparedness are a horseman's best first aid.

When to Call the Vet

"MANY OF THE CASES THAT VETERINARIANS DEAL WITH, AND THAT I dealt with through my career through referral, are ones that were managed in most cases initially by the horse owners," Dr. Stashak says. "Unfortunately, because of lack of recognition of how serious an injury it was, it then became serious because it became infected."

So when is a cut not just a wound?

READ UP

Dr. Ted Stashak literally wrote the book on wound care – "Equine Wound Management." A second edition of the book, edited with Dr. Christine Theoret has been released by Blackwell Publishing. The veterinarian, a professor emeritus at Colorado State University, is also a member of the International Equine Veterinarians Hall of Fame and is the editor of "Adams' Lameness in Horses," and editor and main author of "The Horse Owner's Guide to Lameness."

In most cases, Dr. Stashak says, superficial wounds that do not gape open can be managed by a horse owner.

Any wound, no matter how small, that overlies a synovial structure is at risk of developing an infection that can be career- or life-threatening. Synovial structures are located in joints and act as sheaths protecting tendons. They contain synovial fluid, a yellowish lubricating, protective fluid. A diagram of the danger zones is on Page 2. Puncture wounds can look very minor but can penetrate deep enough to invade the delicate capsules. Any wound over a synovial region that leaks yellow fluid requires immediate care by a veterinarian.

Other situations that require a call to the veterinarian are:

- A laceration that is gaping open, requiring stitches.
- Any wound that does not appear to be healing; it could be infected or have a foreign body imbedded deep in it.
- Any wound near or involving the eye.
- Any injury or wound involving blood coming from the nostril; it could involve fractured facial bones, or the cut could penetrate the nasal cavity or sinus and lead to more serious problems.

Care by Owner

A WOUND THAT DOES NOT REQUIRE THE ATTENTION OF A VETERINARIAN can be cared for by the owner.

4



Self-sticking elastic wrap, such as Vetrap, covers the cotton. Pull with an even tension and wrap from the top of the leg to the bottom.

5



The final step is adding elastic tape to the top and bottom of the wound to help the bandage stay put. Morrow changes the bandage every three days. Antibiotics are always indicated if it's full thickness. "If you're near a joint or tendon sheath, call for help."

and stop bandaging if you want."

Keep a wound bandage on a horse that is in a small paddock or other location where contamination of the wound is likely.

Studies have shown unbandaged wounds can take longer to heal – up to 30 percent longer, according to Dr. Stashak – as they tend to dry out. This is especially true for any injuries to the knee and hock and below. A danger from any wound is the possibility of proud flesh developing. If this occurs, contact your veterinarian.

Preparing for the Vet

IF A HORSE'S WOUND IS IN A DANGEROUS area or is serious enough to need your veterinarian's assistance, there is first-aid you can do to help a situation while waiting for the vet to arrive. Bacteria initially adheres to the wound surface by an electrostatic charge, and within approximately three to six hours they invade the wound tissues and begin to damage them, so prompt care is recommended.

First, clean the wound and protect it as described previously, then remove hair with either clippers or a disposable razor.

Next, rinse the wound again and apply an antibiotic ointment (such as triple antibiotic or nitrofurazone product). Then put a temporary cover over

the wound, such as a clean Telfa pad or 4x4 gauze pads, wrapped so that it will stay on the wound.

"That will minimize further contamination," Dr. Stashak says, "and shorten the period of time the vet needs to be out there. It also prepares the wound for the best opportunity to heal and minimizes the chances for infection to become established." ■

WOUND CLEANER

Water can work as a wound-cleanser, but Dr. Ted Stashak, recommends a few other options, including povidone iodine (10 percent dilution) and chlorhexidine diacetate (2 percent dilution). When using chlorhexidine diacetate, however, be extremely careful not to let it come in contact with the eye, as it can cause ocular toxicity.

The ideal mixtures:

- 15 mL (approximately 3 teaspoons) of povidone iodine to 1 L of water (approximately 4 cups)
- 25 mL of chlorhexidine diacetate (approximately 5 teaspoons) to 975 mL (approximately 4 cups) of water

If a wound is heavily contaminated, use a water hose to remove dirt and other contaminants. Then pack the wound with gauze or a clean towel to prevent any more contamination, then clip the hair around the wound. If you do not have clippers, use a disposable razor. If the wound is not dirty, skip the first step, wet the hair and proceed with clipping.

Then wash out the wound at an angle, using a 60 mL syringe and a 19-gauge needle or a spray bottle. Both of these deliver the liquid at an ideal force. Studies have shown the ideal pressure is 10-15 PSI (pounds per square inch). An average water hose releases water at 40 PSI. Fluid delivered at a higher PSI might drive bacteria deeper into the wound or damage tissue. If repeated washings of the wound are needed, Dr. Stashak recommends using a Hydro-T massage nozzle to deliver a safe stream of water. See Wound Cleaner sidebar for proper cleaning solution mixes.

Hydrogen peroxide is an antimicrobial commonly used to clean wounds, but it can damage tissue and is not recommended.

Once the wound is cleaned, Dr. Stashak recommends a triple antibiotic or antibiotic spray. Repeatedly applying a nitrofurazone product (such as Fura-Zone) can delay healing.

As for bandaging, "upper body wounds are very difficult to manage," Dr. Stashak says. "I would prefer lower body wounds to be covered until a healthy bed of granulation tissue develops. As soon as that occurs, you can go ahead

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