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Guidelines for Wound Management of the Horse ¹

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With all the present day technology and major advances in veterinary medicine, the mechanics of wound healing in the horse remains essentially the same biological process with or without man's intervention. We can aid in the healing process by providing the proper environment for the living tissue to repair itself, but we can not substitute a better mechanism than the natural process.

1. **Restraint** . Horses are powerful and potentially dangerous animals, and even those with predictably good temperaments may react totally different when frightened and injured. The reasons for restraining the injured horse are:

- Control of the horse for your safety and for the safety of the horse.
 - To enable one to control bleeding and evaluate the wound.
 - To allow one to properly clean the wound and apply the appropriate treatment.
2. • Restraint should be applied in as humane a manner as possible. Start with the simplest and least drastic method and use only severe forms when necessary.

3. **Control of bleeding** . After the horse is properly restrained, examine any area where there is excessive bleeding. If the blood flow is profuse and pulsating, an artery may be severed. A tourniquet must be applied between the area and the horse's heart. *Call your veterinarian for further advice immediately* . Wounds that do not bleed in a pulsating manner may be controlled by a clean compress bandage directly over the wound. This is only a temporary wound covering and should not be left on for protection.

4. **Wound evaluation** . After bleeding is under control, one must examine the wound to evaluate the extent of injury and tissue damage. Most wounds can be classified as follows:

- **Penetrating or puncture wound** . These are deceptive in nature and may appear to be only minor, but these types of wounds must always be considered dangerous. Bacteria, dirt, and other foreign material are often carried into the deep tissue by the penetrating object such as a nail or wood splinter. Even the smallest of these wounds warrants prophylactic immunization against tetanus. This type of wound is usually not sutured but allowed and encouraged to

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drain. Subsequent irrigation may be necessary to flush out debris.

- **Incised and lacerated wound** . *Incised wounds* occur from an injury made by a sharp object such as a knife, glass, or a thin metal object that leaves the wound edges cut rather clean. These are often repaired easily by suturing if contamination and profuse hemorrhage have not been a factor.

Lacerated wounds , unlike the incised wounds, have rough and irregular edges and are more prone to infection. There is usually sufficient tissue damage to require some surgical debridement, and in some cases reconstructive surgery may be necessary to effect a good closure of the wound.

- **Abrasions** . Wounds in this category are usually minor and involve only the top layers of skin. A scrape, friction burn, or excessive rubbing are common causes. Some cleaning may be necessary before treatment, but most of these wounds will respond well to many of the commercial products available for treatment.

- If there is a time lapse of more than 12 hours following the injury, the wound classification may be difficult to determine.

5. **Cleaning the wound** . If the wound is not to be sutured by a veterinarian, an additional examination should be made to determine if there is a foreign body within the wound and the amount of debris to be removed. Many foreign bodies may be removed with tweezer type thumb forceps.

6. **Medication** . The vast selection of topical applications that are available makes choosing the proper medication difficult. Several of these compounds have questionable value and others may be harmful. In many instances, a well meant application of an astringent or disinfectant will in fact retard the natural healing of the wound. No amount of ointment, powder or spray covering of an open wound can replace an initial, thorough cleaning of the wound before application of the medication. The cortisones

and other steroids are common components of several varieties of healing ointments commercially available. The intended action is anti-inflammatory, but in fact this action decreases or retards the rate of healing. The so-called tame iodines (i.e. povidone-iodine) and those powders and solutions of furacins are nontoxic to the tissues and provide a very good bactericidal properties. Even if the wound is to be sutured later, these two types of medication will not compromise the wound healing.



restraining the injured horse.



examine the wound.

Bandaging . Protecting a wound by bandaging may protect the area against further contamination and also aid in the immobilization of the wound's edges in order to accelerate the healing process. Certain anatomical areas of the horse do not lend themselves to bandaging and some wounds left to the air heal faster than those covered. However, wounds occurring on the legs below the knee or hock probably should be bandaged due to contributing

factors such as inelasticity of the skin, mobility of a wound in this area and lack of underlying muscle tissue. Wounds left open in these areas are prone to develop exuberant granulation tissue known as "proud flesh." This excessive build-up of new tissue fails to allow the wound to heal and becomes a benign, tumorous mass that may require surgical correction.

1. **Aftercare** . Many wounds require an extended or prolonged period of cleaning, treating and perhaps bandaging . One must be consistent and resolute in this final phase of wound management for optimum results and restrain the horse from "self-mutilation" during the healing process if necessary.



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This programmed method of wound care is by no means complete nor does it cover all circumstances and the potential complications that may arise. These guidelines are offered as reminders and not specifics, but they should aid in establishing a method to allow a normal, healthy repair of tissue when possible.