



Due to their nature, horses of all ages and breeds seem to be prone to injuring themselves. As a horse owner it is important to know some basic first aid and to know how to provide on-going care for a wound.

First Aid

- First step is Don't Panic! - Be as calm as you can when catching your horse and try to calm them so they don't cause any further injury to themselves.
- If your horse is able to walk then take them to a clean dry stall or a quiet area on the yard. If you feel your horse is too sore to walk far then keep them where they are. A feed bucket is always a nice way to distract your horse from the pain of its wound and is often an easy way to relax them.
- Get an extra pair of hands to help hold your horse before you try to assess the wound or apply first aid. Wounds are often painful and your horse might be quite anxious - the last thing you need is for them to accidentally hurt you whilst you are looking at their wound.
- If the wound is still bleeding, apply even and direct pressure to the area using a sterile absorbent bandage, such as gauze swabs (avoid cotton wool). If the bandage soaks with blood simply place fresh material on top. By doing this you can avoid disturbing newly formed blood clots when the soaked material is peeled away.
- Once bleeding has been controlled, try to assess the location, depth and severity of the wound and call your vet. It is important to remember that wounds can be very deceptive in appearance. Some large wounds that appear horrific initially can heal extremely well whereas other seemingly minor wounds can result in severe career-ending infections if they are not dealt with quickly and appropriately.
- Gently cold hosing the wound is a useful measure initially. Cold can help reduce swelling, stop minor bleeding and clean the wound of contamination. But, one must try to avoid sending contaminants deeper into the wound by using a stream of water too powerful.



- The following is a brief guide to some of the things that should alert horse owners to seek veterinary consultation in regards to a wound.
 - Profuse bleeding that is not stopped by simple compression
 - The entire thickness of the skin has been broken
 - The wound is anywhere near a joint or a tendon
 - Wound edges that gape apart or if there is a skin flap present
 - There appears to be contamination of the wound either with dirt or other foreign bodies
 - The horse is very lame, especially if the wound appears to be small
 - Structures beneath the skin such as muscle, bone or tendon can be seen
- You should remember to avoid giving your horse any painkillers before your vet arrives as they can mask the severity of the wound. Also avoid placing any topical treatments onto the wounds without consulting your vet first.

Types of wounds

Wounds come in all shapes and sizes, locations and levels of severity. Each wound is unique, with its own particular characteristics and factors that will affect its outcome. However, there are three broad categories of wounds.

Grazes and abrasions

Grazes are superficial wounds that occur usually after firm but glancing contact with a hard and often rough surface, such as roads, trees, fence posts, and jumps. Trauma will be minimal in this type of wound, with superficial skin damage resulting in minimal bleeding. Often a clear yellow serum can be seen oozing from the damaged skin surface which eventually will form a scab. Grazes and abrasions typically heal uneventfully and require minimal intervention. Keeping the area clean and dry, along with the application of a suitable topical cream is usually all that is required.





Lacerations

Lacerations involve the tearing and complete disruption of all skin layers, often in several directions. These injuries on horses are often due to entanglement in wire, but can be a result of contact with any sharp object. Full-thickness skin lacerations often expose underlying tissue structures such as muscle, tendons, bone, blood vessels, and nerves. Vital structures have little protection from injury, and can be easily damaged. As such, it is very important that lacerations on any part of the body, but particularly the legs, be assessed by a vet. A vast number of interrelating factors affect the outcome of a laceration, both in terms of return to function, and in regard to cosmetic appearance. Some of these factors include the size, location, direction and nature of the laceration; such as how long ago it occurred, how much or how little contamination there is, and what other structures are also involved.



Laceration



Flank wound

Puncture wounds

Puncture wounds occur when a sharp and usually quite thin foreign body penetrates the skin, causing damage to underlying structures; nails, wire, branches and wooden stakes are often major culprits. The common trap with puncture wounds is that the owner can be easily misled by the often trivial amount of skin disruption that has occurred; the danger lying not in the damage to the skin, but in the damage and potential infection of the underlying structures, especially if those structures are joints or tendon sheaths. Puncture wounds can be potentially career-ending and life-threatening, if infection occurs. It is imperative that all puncture wounds, and particularly those near joints or tendons, are seen by a vet as soon as possible. If the penetrating object is still embedded in the horse it is vital not to remove it, as removing the foreign body in the wrong way may do more harm than good.



The vet can better assess what deep structures are involved, and can then remove the object in a safe manner.



Wound Treatment

The overall aim of treatment is to avoid infection and promote a healthy healing environment so as to return function to the area and create an acceptable cosmetic appearance as quickly as possible. Obviously some wounds are much more severe than others, but the basic principle remains the same. Wound healing and the final outcome greatly depends on its initial management. “A job worth doing is a job worth doing right” is very applicable to horse wounds and by investing in appropriate veterinary care in the first instance one can greatly hasten wound healing and can often avoid lengthy complications and delayed healing.

Your veterinarian will do many things with your horses wound to ensure it heals in the best way possible, these may include some of the following;

- Flushing the wound with sterile saline to remove contamination
- Debriding the wound of necrotic tissue or trimming skin flaps
- Suturing the wound if it is appropriate
- Applying topical treatments
- Bandaging
- Starting your horse on antibiotics if required

Wounds near joints

The major concern with wounds that involve a joint is the potential for infection. Joint infection or joint ‘sepsis’ is, once established, hard to control. Joint infection is potentially career-ending, and in severe cases, life-threatening. If the vet suspects that a wound may involve the joint, they will often perform a ‘joint tap’, which





involves placing a sterile needle into the joint and injecting sterile saline. If the saline stays within the joint, all is well and the joint is not affected. If, however, the saline exits through the wound, it means that the wound has penetrated the joint. This is a major concern. If this occurs, the joint is likely to need flushing with sterile saline which is often done in a hospital under general anaesthetic. If highly suspicious of a wound involving a joint the vet may immediately refer the patient to an equine veterinary specialist hospital for further assessment and treatment. Wounds involving joints should *not* be taken lightly.

To suture or not to suture

Suturing of wounds is a great way to promote a healthy healing environment, hasten return to function, and create an acceptable cosmetic appearance. However, not all wounds are amenable to suturing, which is only suitable for clean, uncontaminated wounds that have viable skin edges that can be closed and stitched with minimal tension. After a wound has occurred, there is a golden window of time lasting about 6 hours after which suturing becomes less effective.

What to put on the wound?

The important thing is not to put anything on a wound that will make it worse. Topical wound treatments have developed greatly in recent years and have vastly improved the speed and quality of healing. The attitude of “A wound is a wound, regardless of species” has seen many of the older horse treatments being replaced by a number of topical wound gels and creams that were developed in the field of human wound care. ‘Hydrogels’ such as Intrasite®, for example, have been seen to promote healthy, moist, wound-healing environments, as well as aiding removal of necrotic tissue. Creams such as Flamazine® have antibacterial properties.

Bandaging

Bandaging is one of the key ingredients in ensuring good healing so as to ensure a rapid return to function and a good cosmetic appearance. It is important as a horse owner to know what is involved in a good bandage and how to put one on. Every bandage contains 3 layers;



1. Primary layer - this is the layer that is placed directly onto the wound. It is non-stick so that when it is removed the new healthy healing tissue below is not accidentally damaged. Melanin® is often used as a primary dressing.
2. Secondary layer - this is the padding layer that provides even pressure over the wound. A product such as Gamgee® is a nice choice for this layer.
3. Tertiary layer - this is the top layer of the bandage that holds everything in place and provides compression. Products like Vetwrap® and Elastoplast® are used for this layer.

Some areas of the horse that are prone to wounds such as the hock are often quite tricky to bandage. If you are unsure how to place a bandage over a wound, don't hesitate to ask your vet. A good tip is to watch closely as they place the initial bandage over the wound and ask them to explain what they are doing at each step.

Proud Flesh

Proud Flesh is the scourge of the equine wound. Proud flesh is essentially healing gone wrong. It is composed of granulation tissue (a normal part of wound healing) that has developed excessively and may protrude from the wound. Once proud flesh has developed there are many ways to treat it such as sharp excision or by application of a variety of creams, but the key is to prevent it in the first place - best done by initiating appropriate wound care right from the start. Good quality topical wound creams and gels along with proper bandaging goes a very long way to preventing the development of proud flesh. Pressure over the wound appears to make a great deal of difference in regards to proud flesh, as such; the longer one bandages a wound the less likely it is to develop proud flesh and the more likely it is to have a good cosmetic appearance.





Tetanus

Tetanus is caused by the soil-borne bacteria *Clostridium tetani* and can enter the horse's body through wounds. Tetanus affects all domestic animals, but unfortunately horses are the most susceptible. This, coupled with their propensity to cut themselves, makes tetanus a major risk. The clinical signs of tetanus include muscle stiffness and rigidity, protrusion of the 3rd eyelid, pricked ears and flared nostrils. Affected horses are extremely sensitive and over-react to any type of stimulation. They often take on a "saw-horse" stance whereby their forelegs are stretched out in front and their hindlegs are stretched out behind. Clinical signs develop 7-14 days after entry of the bacteria and prognosis is extremely poor. Thankfully, tetanus is preventable via effective vaccinations and is now rarely seen.

Horse first-aid box

All good tack rooms should have some sort of a first-aid or bandage box. The following is our recommendation for what you should have inside.

- Disposable rubber gloves
- Various sizes of Melanin®
- Vetrap®
- Intrasite®
- Flamazine®
- A digital thermometer
- Sterile Gauze swabs
- Roll of Cotton wool or Gamgee®
- Elastoplast®
- Sudocrem®

As you can see, this is quite a simple list but it will allow you to look after most types of wound. All of the components of your first aid box can be purchased from your vet but quite a few can also be bought from human pharmacies and some tack shops.