

SNAKE BITES & ENVENOMATION



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Horses have poor close-up vision and as a result generally get bitten on the lips, nose, face and neck when they have their head down grazing. Bites can also occur on the lower limbs in the event that a horse accidentally steps on a snake.

The nose and lips are well supplied with and lymph vessels so bites to this area facilitate rapid distribution to the rest of the body.

Envenomation is the process of injecting venom into the horse/ animal and it is only the bites that are deep enough to pierce into the lymphatics that become the veterinary emergencies. It is often difficult to find the bite site, however recognising the signs of envenomation will aid immediate veterinary treatment.



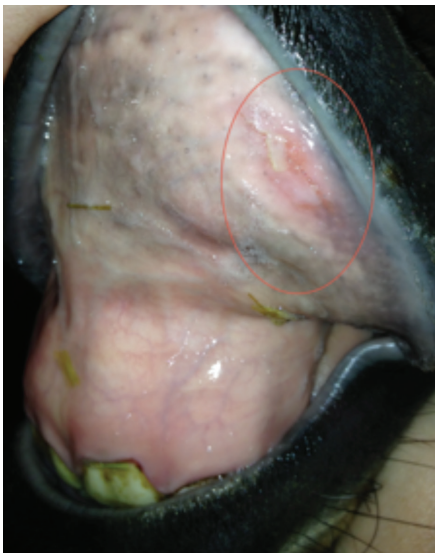
HORSES ARE HIGHLY SUSCEPTIBLE TO SNAKE VENOM AND SIGNS TO LOOK FOR ARE:

HORSES

- Swelling at the bite site (often lips, nose, face, neck)
- Muscle tremors and twitching of shoulders and flanks
- Respiratory distress (panting/flared nostrils)
- Elevated heart rate (>60-80bpm)
- Sweating
- Tongue paralysis and excessive salivation (unable to swallow)
- Dilated pupils
- Inco-ordination (ataxia)
- Weakness leading to collapse
- Red urine discolouration (not always present)

FOALS

- Slow moving, lethargic appearance
- Slow nursing action, frequent stopping and reflux out of nostrils
- Goose stepping action
- Tongue paralysis
- Recumbency/collapse
- Respiratory distress



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WHAT TO DO?

1. CONSIDER YOUR OWN SAFETY FIRST!!!

Just because a horse has been bitten doesn't mean a snake won't have a second strike!

2. ATTEMPT TO IDENTIFY THE SNAKE

Note its colour, approximate width and length, head shape and size and the type of environment it was in. Take a photo if possible.

3. PUT A HEAD COLLAR ON THE HORSE FOR RESTRAINT

Keep the horse/foal quiet and do not move them around.

Do not walk horses in from the paddock as movement will encourage the circulation of venom around the body, but do move them out of harms way if needed.

If transport is needed for treatment or to a stable/yard then bring the float as close to the horse as possible and load.

4. CALL THE VET

It is impossible to know the amount of venom injected and the full effects are not always seen straight away. The horse may look un-affected initially but it can be a different situation 30 minutes later.

5. MONITOR BREATHING

If the nose/face starts to swell place a 10-20cm length of vaseline coated (lubricated) garden hose pipe into the lowest part of each nostril to maintain an open airway.

6. VETERINARY TREATMENT

Antivenom

The amount required depends on the likely amount of venom injected. This in turn will depend on a number of factors such as:

1. The number of strikes
2. The effectiveness of those strikes to penetrate the skin/lymph system
3. The size of the snake and fullness of the venom glands

The response to treatment depends of the time between envenomation and administration of antivenom. Delayed treatments are associated with slower response times and can allow rapid damage to body systems with symptoms being slowly negated.

Tetanus Vaccination

Snake bite puncture marks are notorious for allowing tetanus access into the horse's body.

Wound cleaning and assessment

If the bite site can be located it should be cleaned to minimise the risk of infection at the site. Short term complications involve the loss of a layer of skin at the site which may require antibiotics and daily wound care. Severe tissue damage and potentially bone infections are long term complications of snake bites and will require veterinary care.

Blood and Urine Tests

Studies have shown that 19% cases develop haemolysis (red blood cell damage) and up to 50% of cases developed rhabdomyolysis ("tying up"). Monitoring muscle enzymes (AST and CK) and urine (myoglobin) is essential as additional treatment such as IV fluids may be required to assist renal function in removing toxins and damaged red bloods cells.

If you suspect your horse has been bitten by a snake, please seek immediate attention from your local equine veterinarian



REMEMBER:

It's not the size of the horse that determines the amount of antivenom required but the volume and toxicity of the venom that the snake injects into the horse!



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