

General anaesthesia and your horse

WHAT IS ANAESTHESIA?



Anaesthesia is defined as the loss of sensation by the controlled, reversible suppression of nervous function with drugs. Under a general anaesthetic, consciousness is lost preventing pain and stress to the horse before, during and after major surgery.

Horses can be difficult to anaesthetise, as they must be made to lie down. This requires well-padded boxes, sometimes known as knock-down or recovery boxes, to reduce the risk of harm when they go down before, and try to stand up after, surgery. A team of skilled veterinary surgeons, anaesthetists and nurses will be involved to ensure the surgery goes as smoothly as possible.

EQUINE ANAESTHETIC RISKS

Horse anaesthetics carry more risks, even with a 'healthy' horse under ideal conditions, than with most other domestic animals. A recent report into healthy horse anaesthetics reported a mortality rate of approximately 1%. Some of the reasons for this are as follows:

- 1 **Size.** Horses are large and heavy which means they are more likely to damage themselves when being anaesthetised and when waking up.
- 2 **Oxygen levels in the blood.** When on their backs or side, their heavy weight means that their lungs do not function as well as when standing, reducing the level of oxygen in their blood.
- 3 **Muscle damage.** Horses are prone to getting muscle damage after anaesthetic; normally this is only transient. This is reduced by soft anaesthetic beds, minimising down time, good positioning, good anaesthetic monitoring and avoiding operating on very fit horses.

THE PROCESS

- 1 Before any medication is given, the horse will be thoroughly assessed to detect any potential risks. This usually involves examining the heart, lungs and checking for signs of infection. Surgery may even be postponed following the assessment. Based on the assessment, the anaesthetic regime will be modified to suit the horse. The horse will be weighed to ensure accurate drug dosages are given.
- 2 The horse may then receive a sedative (refer VetEq Note #4, Sedating your horse) to reduce stress while its neck is clipped and a catheter is inserted; this will allow safe access to the horse's vein throughout the operation. The horse's shoes may also be removed or bound with tape to minimise injury to itself, attendants and the knock-down box.
- 3 The horse will be heavily sedated as part of pre-medication before being given an induction anaesthetic injection to render it unconscious. This will ideally take place in the padded box to reduce the risk of injury to the horse as it goes down.
- 4 Once the horse is lying down, a breathing tube (endotracheal tube) will be inserted through the mouth into the windpipe, through which anaesthetic gases and oxygen are administered to keep the horse anaesthetised. Sometimes, intravenous drips are used to maintain anaesthesia rather than inhaled gases.
- 5 The horse may then be hoisted mechanically onto the operating table where it is carefully positioned on its back or side - depending on the surgery.
- 6 Throughout the surgery, the anaesthetist and nurses will constantly monitor the horse by assessing its breathing, eye reflexes, blood pressure, heart rate and rhythm.
- 7 Upon completion of surgery the horse will be allowed to come round in a dark, quiet environment. The horse will usually be on its own in the box at this time as its movements are unpredictable, making it dangerous for people to be in with it. However, it will be carefully monitored during this period, sometimes by using special viewing windows or CCTV. The operation is only considered complete when the horse is safely standing up.



IN AN EMERGENCY

In an emergency there will be no time to plan ahead, but for routine operations you should:

- ✓ Arrange for your horse's shoes to be removed before surgery to help prevent the horse injuring itself when lying down or standing up. In an emergency, be prepared that your horse will have no shoes on after surgery.
- ✓ Check with the vet whether you need to withhold food from the horse and for how long.
- ✓ Contact your insurer to discuss details of any operation - you will need their agreement to proceed and to be covered for the extra risk. In an emergency, notify your insurer as soon as possible afterwards.

There has been an enormous increase in knowledge, equipment and medications available to safely anaesthetise horses. Your horse will be in the best possible hands at the hospital with expert equine vets.

RECOVERING FROM AN ANAESTHETIC



The veterinary nurse will usually be responsible for caring for your horse in the immediate recovery period post surgery. Your horse will be carefully monitored to ensure its fluid levels are maintained and it is kept warm and comfortable. Food will be introduced as appropriate and your horse will only be allowed to leave the hospital when the vet is satisfied that all bodily systems are functioning normally.