

# How do we give anaesthetics to Pets?

General anaesthetics are used for a wider variety of procedures in pets than in people. Unfortunately, despite some very good local anaesthetics and the ability to use nerve blocking techniques, understandably many veterinary patients are unwilling to co-operate with certain diagnostic or therapeutic procedures whilst awake. Aside from surgery, anaesthetics are used for diagnostic procedures such as taking x-rays and endoscopy; also therapeutic procedures like catheterizing an obstructed bladder, removing a grass seed/thorn from a paw or suturing wounds.

Modern anaesthetics are designed to keep our patients unconscious, immobile and pain-free. Many anaesthetic agents used in human medicine are used by vets. Different species have different responses to drugs so the anaesthetic protocol used on a guinea pig is likely to be quite different to that used on a dog or cat.

After the pet has had a pre-anaesthetic assessment of their heart, lungs and general health, they are usually starved for a period of time prior to the anaesthetic to reduce the risk of vomiting when they are asleep.

Anaesthetics usually involve a 'balanced protocol' in which several drugs with different effects are used in combination to exploit their benefits whilst avoiding having to give a high dose of just one drug. On admission to our Hospital, patients are given a premedication. This is a combination of a sedative and analgesic to relax the animal. This reduces anxiety and also the amount of anaesthetic that is required. An intravenous anaesthetic is given into a leg vein as the next step. It takes 1-2 minutes for animals to fall asleep. When they are asleep and fully relaxed an endotracheal tube is put in place to maintain their airway and they are connected to the anaesthetic circuit. They breathe a combination of oxygen and anaesthetic gas, which keeps them asleep.



An anaesthetized cat



Anaesthetizing a guinea pig

Whilst the patient is anaesthetized, a veterinary nurse is constantly monitoring their heart rate, respiratory rate, depth of anaesthetic, body temperature and oxygen levels. There are various machines that help with this monitoring, and allows the amount of anaesthetic to be adjusted to maintain an optimum level.

Rabbits, guinea pigs and small rodents are usually given an anaesthetic gas/oxygen mixture by face mask or special chamber.

This is a different anaesthetic to the one used in dogs and cats, and is much faster acting to help them fall asleep quickly and without distress.

When it is time for the patient to wake up, we turn off the anaesthetic gas and continue to give oxygen whilst the body metabolises the drugs the patient wakes up. Continued monitoring is required for several hours after the anaesthetic until the patient is fully awake and able to go home.



Anaesthetizing a rabbit