

Elands Veterinary Clinic.

CLIENT INFORMATION SHEET.

ANAESTHESIA



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Often the thing that concerns people most about a surgical operation is not the procedure itself but the anaesthetic. When you go into hospital you naturally expect the best and latest treatment. At *Elands Veterinary Clinic* we believe that your pet deserves a similar approach.

Pre-operative Blood Samples.

The risk of a problem with the anaesthesia is extremely small in a healthy patient, but increases where there is organic disease, especially kidney or liver disease. These organs have a large reserve capacity. For instance you can donate a kidney to someone else and survive on just one. In fact you can survive on considerably less than one kidney as long as it is not put under too much strain. In animals, the early signs of kidney and liver failure usually go completely unnoticed, and are only detectable by taking blood samples. If we find that your pet has a slight liver or kidney problem we may wish to modify the anaesthetic regime used, or even postpone the operation, pending treatment. If these diseases are detected early, *before* they start to cause visible signs, treatment can often be effective purely by modifying the diet. We therefore recommend a pre-operative blood sample before your pet is anaesthetized for all patients, but particularly middle-aged or older pets.

Anaesthetics.

Anaesthetics which are commonly used in both veterinary and human medicine have been around for many years. Anaesthesia is usually induced by a short-acting injectable anaesthetic, after which the patient is kept asleep with a gaseous anaesthetic using an anaesthetic machine. The most frequently used injectable anaesthetic was developed in 1934. Of course there is nothing wrong in that, and it is still used with excellent results. But in 1986 a new injectable anaesthetic agent with special properties was introduced into British medical hospitals. Human anaesthetists found that their patients were anaesthetized rapidly, smoothly and in a well controlled manner. Recovery was particularly rapid and clear-headed, and the agent proved especially useful for "day case surgery" - where patients operated on can go home the same day.

In 1988 this anaesthetic, containing Propofol, became available for veterinary use as **Rapinovel**, and we have been using it at this clinic since that time, especially where the patient is particularly unwell, or for older dogs and cats. However, in view of its low toxicity, and other benefits, we now prefer to use this agent for all routine surgery as well.

The most frequently used volatile (gaseous) anaesthetic, halothane, has been used since the 1950's in both human and veterinary medicine, and is generally considered safe and effective. The anaesthetic machines used at *Elands Veterinary Clinic* are the same as those used in a human medical hospital, and this allows accurate administration of the

anaesthetic gas in combination with nitrous oxide and oxygen.

Recently, however, a new volatile anaesthetic has been licensed for veterinary use. **Isoflurane** has a number of advantages over the older agents. In particular it has less effect on heart and blood pressure and does not rely on being excreted by the liver or kidneys and is therefore safer where the function of these organs is impaired or inadequate. Recovery is also rapid and calm. It was initially used in human medical hospitals for very young or elderly patients and is now used routinely for general surgery. We have therefore invested in the equipment to allow us to offer this as a routine anaesthetic agent for the wellbeing of your pet. We find it particularly useful for very young, sick or elderly patients, exotic animals and birds. However the benefits for the heart, liver and kidneys together with improved and rapid recovery, even in normal healthy patients, are such that we would prefer to use Isoflurane for all surgical operations.

The use of these modern anaesthetic agents allows us to return your pet in a brighter and more alert condition, even following anaesthesia just a short time before. We know that using these agents the anaesthetic experience is kept as short and made as pleasant as possible.

MONITORING ANAESTHESIA.

To further safeguard your pet, we are now able to offer **pulse oximetry** during anaesthesia. This machine monitors the patients pulse continuously and also measures the amount of oxygen in the blood, giving an early warning of any problems, and enabling us to be absolutely certain that the brain is receiving sufficient oxygen during anaesthesia. We can also perform an **electrocardiogram (ECG)** if necessary, throughout anaesthesia, which is particularly useful in older patients or those with known heart problems.

Not surprisingly, as with most technological advances, these anaesthetic agents and monitors are more expensive than some of the older techniques, and we recognise that with the more routine operations and procedures, the extra cost appearing on your bill may not be particularly welcome. So we are happy to discuss at any time the merits of using these alternative anaesthetic agents and monitors for your pet, and will continue to provide the older alternatives where requested.

