



## **Neutering female dogs**

### What are the advantages of neutering females?

The advantages include:

- Prevention of unwanted pregnancy
- Reduced risk of mammary cancer (the protection is greater the earlier the bitch is spayed) and some other reproductive tumours
- Prevention of pyometra (life-threatening infection of the womb)
- Prevention of false pregnancy (which can make bitches miserable and reluctant to eat)
- Avoidance of inconvenience associated with seasons

### What are the disadvantages of neutering females?

The disadvantages include:

- All anaesthetics and surgery carry some risk of complications
- Neutered females are more likely to develop age-related urinary 'leaking' in later life (this can be treated with medication)
- Increased risk of joint problems in later life (this seems to be mainly in large breed dogs, if they are neutered before puberty)
- Possible some increased risk of some uncommon cancers in later life (again, mainly in large breed dogs that are neutered before puberty).

### So should I neuter my female dog?

The British Veterinary Association has considered the pros and cons of neutering female dogs and believes that neutering females solves more problems than it has the potential to cause. Therefore, the standard recommendation is that it is generally better to neuter females if they are not intended for breeding. However, at Acorn House Veterinary Hospital all females booked in to be neutered receive a full examination and consultation with a veterinary surgeon so that the neutering decision can be tailor-made for your pet.

### When should I neuter my female dog?

Small breed dogs (expected adult weight of less than 15kg) can be neutered at 6 months of age.

Larger breeds (expected to be over 15kg) should be neutered 12-15 weeks after their first season. This reduces the risk of some of the later life complications mentioned above. Generally, the larger the breed, the later the first season will be.

### What does neutering involve?

Neutering females is also known as 'spaying'. It involves removing the ovaries and the womb. Dogs are given a pre-medication injection on arrival at the hospital. This makes them feel sleepy. They are then given a general anaesthetic and the fur on the belly is clipped away. An incision is made in the middle of the belly, through the skin, fat and muscle, into the abdominal cavity. The ovaries are identified. Loops of suture material (surgical thread) are used to tie off the blood supply to each ovary. The ovaries can then be removed. In some cases, the uterus (womb) is removed in the same way (it is the removal of the ovaries that is necessary for a spay - the decision as to whether to remove the uterus as well is largely surgeon preference but may also be influenced by the appearance of the uterus at the time of surgery).

The muscle, fat and skin are stitched back up in separate layers. All dogs receive injections of three different types of pain relief at the time of surgery.

### What are the risks of anaesthesia?

Studies have shown that the risk of death under anaesthetic in healthy dogs in the UK is approximately 1 in 2000. This risk is higher than for people undergoing anaesthesia.

Anaesthetic risks are minimised by careful management and monitoring of the patient's temperature, heart rate, breathing rate, blood pressure, carbon dioxide levels and reflexes throughout the procedure. Every anaesthetised patient at Acorn House has an intravenous cannula placed before anaesthesia (small tube into the vein on a front leg) and a tube placed into the windpipe as soon as they are asleep. This means that the veterinary team can give continuous intravenous fluids and oxygen throughout the procedure and medication can be given straight into the blood stream in case of any complications.

### What are the risks of spay surgery?

Specific surgical complications that have been reported include:

- Bleeding. The ovaries and cervix are supplied by blood vessels, which need to be tied off before the ovaries and cervix can be removed. If the ties slip after surgery, bleeding can occur. This is a problem that is mostly seen in the first 12 hours after surgery. It is most likely to occur in larger dogs, with a lot of fat stored around the blood vessels. If this complication happens, it will be necessary to go back and tie a new tie around the vessel.
- Reaction of the body to the suture material internally (where the vessels are tied off) or under the skin. If the body reacts to the suture material inside the abdomen, the dog may have a reduced appetite and feel uncomfortable. Fluid may be produced by the irritated tissues, so there may be a clear or pink discharge from the wound. In most cases, this will settle on its own over time as the suture material dissolves, but in exceptional cases it may be necessary to repeat the surgery and replace the suture material with an alternative.
- Interference with the wound. If dogs run and jump whilst the wound is healing, or lick at their wounds, there is a risk of the wound opening up or becoming infected.

- Damage to the urinary tract. The urinary system lies very close to the ovaries and womb and there are very rare reports of damage to this system at the time of surgery. The risk of this complication is very, very low.

#### How does Acorn House Veterinary Hospital minimise the risk for my dog?

- The senior veterinary and nursing teams at Acorn House have additional qualifications and experience in medicine, critical care and surgery and have developed anaesthetic and surgical protocols to ensure that every pet that is neutered at Acorn House will receive the same high standard of care.
- Dogs that have been spayed are kept at the hospital for 24 hours following their surgery at no extra cost. This ensures that they remain rested during this critical period, and means that any complications can be picked up at an early stage.

#### Aftercare

Dogs usually go home the day after their operation. Dogs have check-ups at the surgery 2 and 10 days after operation.

A buster collar is provided free of charge, to prevent dogs from licking at their wounds. Some clients prefer to purchase a medical bodysuit instead. These are available from Reception or our nursing team.

Most dogs go home with a liquid anti-inflammatory painkiller, to be taken for 3-5 days after surgery. It is important to follow the instructions carefully - the medication should be given once daily, in food.

Dogs need to be prevented from running and jumping. This usually means keeping dogs on a lead, even in the garden. Dogs should not be walked for the few days following surgery, and lead walks should be restricted to 5-10 minutes twice daily thereafter, until the veterinary surgeon advises otherwise.

#### What about keyhole surgery?

At Acorn House, it is also possible to offer spay surgery as a keyhole procedure. This is correctly known as a laparoscopic spay. With a laparoscopic spay the surgeon does not open up the patient and look at the organs directly - instead a surgical 'telescope' is used to visualise the organs on a television screen and the surgery is carried out with very fine instruments placed through tiny incisions into the patient. The patient is temporarily inflated to make space for the surgical instruments and to allow the surgeon to see all of the organs clearly.

The benefits of laparoscopic spaying are that the patients experience much less discomfort after surgery because they do not have a large surgical wound. They are expected to return to normal the day after surgery and wound complications (such as infection) are much less common. There is a lower risk of bleeding and reaction to surgical suture material because the internal blood vessels can be visualised under magnification, and are sealed using heat, rather than relying on a thread being tied around them.

Risks do remain with keyhole surgery. In addition to the anaesthetic risk which is the same with either method, there is the potential for bleeding from other abdominal organs. If there are any unexpected problems (such as bleeding, difficulty seeing the ovaries, or unstable anaesthetic after inflating the abdomen), the surgeon must always reserve the right to convert the laparoscopic procedure into a traditional open surgery.

Laparoscopic spays cost an additional £206 on top of the standard spay price.

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