

# Left Lateral Flank Spay Technique

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A survey of veterinarians in the United Kingdom showed that 96 percent performed ovariohysterectomies on cats using the flank laparotomy technique (side incision) over using the midline coeliotomy technique (midline incision) (Coe et al., 2006). British veterinarians prefer the flank spay, whereas U.S. veterinarians prefer to use the midline spay technique. Proponents of the flank spay technique believe there is less of a chance for infection at the wound site, and a decreased risk of evisceration occurring (internal organs protruding through the incision) should the incision break down post surgery (Remfry, 1996).

## The Flank Spay Technique

A flank spay is when the incision is made on the left side (flank) of the body rather than on the midline of the abdomen. The spay procedure is the same as performed during the midline incision, and the same reproductive organs (ovaries) are removed with both procedures. However, British veterinarians also remove the entire uterus, along with the ovaries, during a flank spay to prevent future complications, such as pyometra (Remfry, accessed 2014).

As with a midline spay, the flank incision should be made as small as possible. Intradermal sutures should be used instead of skin sutures, to prevent the cat from pulling them out. And dissolvable sutures are highly recommended, as well as surgical skin glue.

## Advantages of Using Flank Spay Technique

If the spay incision should break down after surgery, protrusion of vital organs through the incision is less likely with a flank incision (Remfry, accessed 2014). The flank position also helps the incision from becoming infected if the cat is not able to be kept in a perfectly clean environment following surgery.

Because the surgery is performed on the side of the body, monitoring the incision is much easier. The incision line can be seen from a distance without having to handle the cat; the midline technique, where the incision is made on the abdomen, requires the cat to be handled in order to clearly monitor its healing. Handling a feral cat less also equals less stress on the cat and less risk of injury for both cat and human.

Performing the flank incision is also beneficial if the cat has nursing kittens; however, because the approach is too small, it is not recommended for pregnant cats (Peterson, 2006). Since the flank incision is not made near the mammary glands, the female is able to be sterilized and her kittens can continue to nurse following surgery. Using the flank incision is more comfortable for the mother during postoperative recovery, and there is a lower risk of evisceration, because the nursing kittens are not pulling at the incision site like they would be if a midline incision was performed. In addition, mother cats often have large mammary glands from nursing. During a midline incision, excessive bleeding and leakage from the mammary glands can cause infection; this is avoided with the flank incision.

## Disadvantages of Using Flank Spay Technique

A few disadvantages or complications that can arise from performing the flank spay have been noted as including “the possibility that the entire uterine body may be difficult to remove, a dropped ovarian pedicle may be difficult to recover, and that it may be difficult to expose the opposite ovary and uterine bifurcation” (Coe, 2006).

Also, because of the flank position, the scar will be covered over with fur once completely healed, making it difficult

to identify a cat as being spayed. Occasionally the fur will regrow in a slightly different color or pattern following a flank spay, but the sure way to identify a cat as having been spayed is to ear-tip her. Ear-tipping feral cats is the universal symbol for a sterilized individual, regardless of which surgery technique was used.



adrigu via Flickr

*Cat spayed using the midline approach. The incision is through the underbelly.*

## Postoperative Care

After all surgeries, Alley Cat Rescue recommends that both female and male feral cats receive a long-acting antibiotic to prevent infection and to help treat any underlying infections that may not be visible. All cats should be held for at least 24 to 48 hours to ensure they are fully conscious prior to being released. It is not recommended to trap lactating mothers; however, if one is inadvertently trapped, the flank surgery allows nursing felines to be released back to their litter within a 24-hour period. Most kittens around three weeks old should be

able to survive in mild temperatures for about a day without their mothers.

## Flank Spay in the U.S.

Despite the majority of British veterinarians preferring the flank spay, many U.S. veterinarians believe the midline ovariectomy is the safest procedure to perform. Their primary concerns regarding the flank incision include limited access to the cat's abdomen should complications, such as bleeding, arise, and difficulty identifying a previously spayed cat (not all vets will know to check for a surgery scar on the flank, and not all flank-spayed feral cats will be properly identified by ear-tipping) (McGrath, et al., 2004).

Operation Catnip of Gainesville



*Cat being prepared for a flank approach spay procedure, often favored by colony caretakers for its visibility from a distance. The incision is through the left side.*

However, some veterinarians in the U.S. do choose to perform the flank spay, citing a few advantages to the procedure over the traditional midline approach. Some feel the flank incision to be safer, as the incision is less affected by gravi-

tational forces than the midline incision, and that the overlapping musculature on a cat's flank protects against evisceration should the closing sutures fail. The flank spay can also save time for veterinarians, as the relevant organs can be easier to find through a flank incision (McGrath, et. al., 2004).

Operation Catnip in Raleigh, North Carolina and Florida, use the flank procedure for feral cats. They like the advantage of being able to view the incision through a cage during recovery so the cats need not be handled (Operation Catnip, accessed 2015). The few veterinarians who use this method claim they have not experienced excessive bleeding using the flank incision and they ensure sterile surgeries to prevent infections.

## Conclusion

There is no standard surgical approach to spaying cats; both the flank and midline techniques safely sterilize female cats in about the same amount of time, with about the same amount of difficulty (Coe, 2006). In comparing the flank and midline approaches, Coe and others concluded that “neither approach has any particular advantage over the other,” and “the authors consider that the midline approach is preferable, predominantly because the uterus sometimes cannot be identified from the flank approach, and it is difficult to be certain whether this is a technical problem or the cat has already been neutered, without exploring from a midline approach” (Coe, 2006).