

# Spaying (Ovariohysterectomy): The Benefits in Cats

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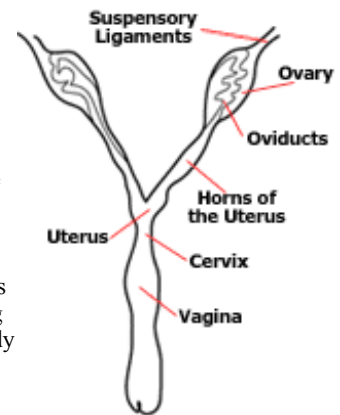
Newspapers, radio, and television commonly feature articles about pet overpopulation. They stress the fact that too many kittens and puppies are produced every year and that there just are not enough potential owners to go around. The obvious conclusion is that we should breed fewer cats and dogs and produce fewer litters. The best way to ensure that this occurs is through sterilization procedures, so a larger percentage of cats and dogs are incapable of breeding. Performing an ovariohysterectomy (spaying) female animals is the best approach to decreasing the number of kittens and puppies. Being veterinarians, we also know that spaying and castrating pets are important to the average pet owner because of the health and well being of their animals. So, although you may spay your animals in an effort to help control a national problem, in doing so, you increase their chances of living long and healthy lives.



Having a litter of kittens may seem like a fun thing to do. Some even believe that it helps their female cat, in some way, to develop more completely or become a better pet. Neither is true. Becoming pregnant and having a litter of kittens in no way alters the maturity level of the cat, either physically or mentally. In most cases, people find out that it is hard to find good homes for all of the kittens, even if they are advertised "Free to a Good Home." In addition, not all pregnancies go smoothly. Difficult labor, kitten mortality, and potential health problems in the mother, such as uterine and mammary gland infections, can take all the fun out of the experience. Most of the clients we have worked with end up wishing that they had never allowed their female to have a litter. Professional breeders are prepared and equipped for the entire process and it should generally be left to them.

## The female reproductive tract

The reproductive tract of the female cat begins with the ovaries where the ova (or eggs) are produced. When a female kitten is born, every egg that will be released by her ovaries over her lifetime is already present. The ova are, however, in an immature form and require further development to reach a stage that can be fertilized by sperm cells. When a cat's heat cycle starts, hormones stimulate the maturation of some of the ova or eggs. When the cat is bred, the ova are then released through the surface of the ovary and pass into the oviducts. These are tiny tubes that run between the ovaries and the horns of the uterus. It is within the oviducts that fertilization (the union of the sperm cell and ovum) occurs. The horns are the muscular section of the uterus between the oviducts and the body of the uterus. In an adult cat, the horns of the uterus are about six inches long and the diameter of a normal shoelace. When a cat is in heat, the uterus and the blood vessels to it will enlarge. When pregnant, this small uterus enlarges to hold several kittens. The uterus ends at the cervix of the cat. During pregnancy, most kittens develop within the uterine horns, but one may reside within the body of the uterus.



## Birth control pills

There are birth control pills which can be used in cats, but they can have serious unwanted side effects such as the development of diabetes mellitus. They cannot be used for long periods of time.

## Surgical sterilization

Since birth control pills are not a viable option, as a practical permanent form of sterilization, we are left with the surgical procedure called spaying (medically referred to as ovariohysterectomy). An ovariohysterectomy (OHE) is the complete removal of the female reproductive tract. The ovaries, oviducts, uterine horns, and body of the uterus are removed. Not only does this procedure prevent the animal from getting pregnant, but it also eliminates the heat cycles. The surgery removes the source of production of such hormones as estrogen and progesterone. These hormones are responsible for stimulating and controlling heat cycles and play a major role during pregnancy. But they also have other effects on the body and some of them are potentially harmful.

## Disadvantages of not spaying your cat

An OHE eliminates most, if not all, of the female hormone production. In so doing, the real advantages of this procedure are realized. In humans, great efforts are undertaken to maintain or restore hormone production in the body if the ovaries are removed, but the same is not true for cats. These hormones play key roles in reproduction in the cat. However, they are also responsible for many unwanted side effects.

**Estrus:** Cats are 'spontaneous ovulators.' This means a cat will ovulate, or release the eggs from her ovaries, only if she is mated. If a female cat is in heat (she will be in heat for 3 to 16 days) and is not mated, she will come back into heat every 14 to 21 days until she is mated. Physiological and behavioral patterns press upon her to mate. Being locked in an apartment or house where this is impossible causes great anxiety and frustration (for her, and you).

**Behavior and hygienic problems:** During the heat cycle there are numerous behavior problems that may develop. Females in heat will actively search out male cats and may attempt to escape from the house or yard, putting them in the danger of traffic,

fighting with other animals, etc. Often there is a sudden influx of male cats around the home and yard. The howling at 2 a.m. will affect your behavior as well as your cat's. In addition, unsprayed females may spray urine when they are in heat. This can be difficult to stop, and it is highly recommended that such cats be spayed as part of the treatment.

**Mammary cancer:** Mammary cancer is the third most common cancer in cats. Reproductive hormones are one of the primary causes of mammary cancer in the cat. Cats who have been spayed have a 40-60% lower risk of developing mammary cancer than those who have not been spayed.

**Tumors of the reproductive tract:** Tumors also occur in the uterus and ovaries. An OHE would, of course, eliminate any possibility of this occurring. They are not commonly seen cancers in cats, but they do occur.

**Infections of the reproductive tract:** Unspayed cats may develop a severe uterine disease called [pyometra](#). With this disorder, bacteria enter the uterus and it becomes filled with pus. The normal 6-inch long, thin horns of the uterus enlarge to 10 inches long and can become the diameter of a human thumb. Undetected, this condition is almost always fatal. In rare cases, when the condition is found early, hormonal and antibiotic therapy may be successful. This type of therapy is limited to valuable breeding animals. Generally, the treatment of pyometra requires a difficult and expensive ovariohysterectomy. The toxicities resulting from the infection can strain the kidneys or heart, and in some cases may be fatal or cause life-long problems, even after the infected uterus has been removed.

**Behavior and hygienic problems:** During the heat cycle there are numerous problems to deal with. There are the behavior problems seen in some females searching or yearning for available males. Owners of females in heat also frequently have to deal with a sudden influx of male cats around the home and yard. The howling at 2 a.m. will affect your behavior as well as your cat's.

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#### Early spaying

In the United States, most cats are spayed between 5 and 8 months of age. Many animal shelters and veterinarians are starting to spay female animals at a younger age, even at 2 months. This early neutering does not affect the growth rate, and there are no appreciable differences in skeletal, physical, or behavioral development between those animals neutered early than those neutered at a more traditional age. It must be remembered that younger animals may need different anesthetics and are more prone to hypothermia (lower than normal body temperature) during surgery. As long as procedures are modified to account for these differences, early spaying is very safe. In fact, animals spayed at a younger age often have faster recoveries than those spayed when they are older.

#### Summary

As can be seen from our discussion, an ovariohysterectomy eliminates many medical and behavioral problems. In fact, in many cats, an OHE probably adds years to their lives or at least provides them with a more comfortable, less stressful life. The OHE does its part in pet overpopulation, but you, as the owner of an individual cat, should also view it as a way to increase the length and quality of your pet's life with you.