

Ovarioectomy vs. Ovariohysterectomy: Which Way to Spay?

Pet Column for the week of April 1, 2013

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Source - [Dr. Heidi Phillips](#) In veterinary medicine, one very common surgical procedure is the ovariohysterectomy, more commonly known as a “spay.” This procedure involves removing the ovaries and uterus down to the cervix to prevent a female pet from reproducing. According to Dr. Heidi Phillips, a surgeon at the University of Illinois Veterinary Teaching Hospital in Urbana who specializes in urogenital and microsurgery, the traditional ovariohysterectomy is not the only way to safely sterilize a female pet.

“Another effective sterilization procedure for pets is the ovariectomy, in which the veterinarian surgically removes the ovaries and part of the uterine horn that is in close association with the ovary, but leaves most of the uterus,” says Dr. Phillips.

So which surgical procedure is better?

Dr. Phillips explains that studies show these surgical techniques are equal in terms of achieving sterilization of the pet. The choice of procedure likely depends on what the surgeon has been trained to do. Ovariohysterectomies are more commonly performed in the United States, since this is the technique that is taught in veterinary colleges here, while ovariectomies are much more common in Europe.

Some advocate the ovariohysterectomy over the ovariectomy due to concern for a condition called “stump pyometra.” Stump pyometra occurs when fluid collects in what remains of the uterus after the surgery and causes severe infection. It has been suggested that removing the entire uterus to the cervix may help prevent this condition. However, stump pyometra results from hormone production from residual ovarian tissue, so removing the whole uterus is not necessary.

This was confirmed in a review of the literature published in *Veterinary Surgery* in 2006 by Dr. Bart van Goethem and co-authors, who concluded that ovariectomy will not increase the chance of developing a pyometra compared to ovariohysterectomy.

Removal of the entire uterus has also been advocated as a way to prevent uterine diseases, such as uterine cancer. However, according to Dr. Phillips, the incidence of uterine tumors in dogs and cats is very low. The review carried out by Dr. van Goethem and colleagues reports the incidence of uterine cancer in dogs makes up only 0.4% of all cancers in canines. Among the few animals that do develop uterine tumors, the majority of these tumors are benign.

Dr. Phillips also advocates the ovariectomy over the ovariohysterectomy because of the risk of complications associated with the latter procedure. She says that when the uterus is surgically removed along with the ovaries, the ureters—the tubes that convey urine from the kidneys to the bladder—can easily be damaged, either by becoming entangled in suture material or by being caught in a surgical clamp. Damage to a ureter could cause lifelong medical issues or even death for the animal.

“The greater risk and concern, in my opinion, is damaging the ureter during the more invasive surgical procedure,” she says.

A third procedure, a laparoscopic spay, uses a minimally invasive approach to remove only the ovaries. For this surgery, a veterinarian uses a bipolar electrothermal vessel sealing device that can be used on the blood vessels of the ovaries and uterus and on the uterine horn. According to Dr. Phillips, performing a spay using devices that seal the tissue minimizes concern that bleeding could occur. The incision made is extremely small, which may lead to a faster recovery for the patient.

In a study published in *Veterinary Surgery* in 2009 by Dr. William Culp and other veterinarians, dogs spayed laparoscopically showed more activity postoperatively than dogs spayed via the routine ovariectomy method. However, because it requires specialized training and instruments, fewer veterinarians may offer the laparoscopic spay.

For more information about ovariectomies, speak with your local veterinarian.

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