

Talk to your veterinarian about the benefits and risks of the sterilization procedure so you can make an informed decision.

WHEN SHOULD I SPAY OR NEUTER MY PET?

The AVMA, American Association of Feline Practitioners, Association of Shelter Veterinarians, and several cat advocacy groups support spaying or neutering of cats by five months of age. This recommendation is based on the known benefits of sterilization, and the lack of evidence of harm related to the age when the procedure is performed.

When it comes to dogs, there is no one-size-fits-all recommendation. The optimal timing of spaying or neutering is as individual as your pet. Consult your veterinarian, who can help you decide when based on your dog's breed, age, sex, personality, role (e.g., pet or working dog), home environment, and health status.

Contrary to popular belief, there is no known benefit to delaying the spay procedure until a female dog or cat has gone through their first heat cycle.



FOR MORE INFORMATION ON HOW TO KEEP YOUR PET HAPPY AND HEALTHY AS LONG AS POSSIBLE, VISIT:

American Veterinary Medical Association
avma.org/PetOwners

SPAYING & NEUTERING

*Brought to you by your veterinarian
and the American Veterinary Medical Association*



(C) 2020 American Veterinary Medical Association



Many pet owners opt to spay or neuter their pets. Spaying and neutering are important for preventing unplanned or unwanted litters, and reducing pet overpopulation.

WHY SPAY OR NEUTER?

Although progress has been made in recent years, millions of unwanted dogs and cats, including puppies and kittens, are euthanized each year. The good news is that you can make a difference.

By having your pet spayed or neutered, you will do your part to prevent the birth of unwanted animals. What's more, you could be setting your pet up for a longer life, as studies have repeatedly shown that spayed or neutered dogs and cats live longer, on average, than other dogs and cats. This advantage is likely due to the health and behavioral benefits of the procedures.

Established health benefits include protection against some potentially serious diseases. Spaying female dogs and cats can prevent uterine infection and reduce their risk of breast cancer. Neutering males can eliminate their risk of testicular cancer and reduce their risk of developing enlarged prostate glands (known as benign prostatic hyperplasia).

Behavioral benefits relate directly to the decreases in certain sex hormones that occur after spaying or neutering. Removing a female dog or cat's ovaries eliminates their heat cycles and generally reduces the mating-related behaviors that may frustrate owners. Removing a male dog or cat's testicles reduces their breeding instinct, resulting in less roaming and fewer urine-marking behaviors.

Discuss the options for spaying or neutering with your veterinarian, so you can decide what's right for your pet, you, and your family.

WHAT ARE THE OPTIONS?

If you decide to spay or neuter your pet, you have options. Discuss these with your veterinarian so you can decide what's right for your pet, you, and your family.

Common surgical sterilization procedures

During surgical sterilization, a veterinarian removes certain reproductive organs. The most common procedures include removal of the gonads—the ovaries in females and testicles in males.

- *Ovariohysterectomy—the typical “spay”*: In female dogs or cats, the ovaries, fallopian tubes, and uterus are removed. This makes the animals unable to reproduce. Removing the ovaries eliminates the main source of reproductive hormones that drive the female's heat cycle and behavior related to the breeding instinct.
- *Ovariectomy*: Another option for female dogs or cats is to remove only the ovaries, leaving the uterus. The impact is similar to ovariohysterectomy.
- *Orchiectomy—the typical “neuter”*: In male dogs or cats, the testicles are removed. This makes the animals unable to reproduce, eliminates the main source of reproductive hormones, and can reduce or eliminate male breeding behaviors.

Surgical alternatives to gonad removal

Some owners may wish to prevent their pet from reproducing but keep the animal's hormone-producing gonads intact. They may choose one of these less common methods of surgical sterilization, which should not affect behaviors associated with the breeding instinct:

- *Hysterectomy*: In female dogs or cats, the uterus and part of the fallopian tubes are removed.
- *Vasectomy*: In male dogs, only the vas deferentia (tubes that transport sperm from the testicles) or a portion of them are removed.

Nonsurgical sterilization

Efforts are ongoing to develop methods that can make dogs and cats infertile without the need for surgery or anesthesia. At this time, nonsurgical sterilization methods are not routinely available for companion animals. However, methods such as “intratesticular sterilants” to block sperm production, under-the-skin hormone implants, or anti-fertility vaccines may become available or more widely used in the U.S. as research and the drug-approval process continue.

WHAT ARE THE RISKS OF SPAYING AND NEUTERING?

While both spaying and neutering are major surgical procedures, they are also the most common surgeries performed by veterinarians on dogs and cats. Like any surgical procedure, sterilization has some risks related to the procedures themselves and to the anesthesia. Even so, these risks are typically low.

Your veterinarian can recommend a surgical plan specially tailored to your pet's needs. Before the procedure, your veterinarian will thoroughly examine your pet to ensure they're in good health. General anesthesia will be used to keep your pet comfortably asleep during the surgery, and medications will be given to minimize pain. After surgery, you will be asked to keep your pet calm and quiet for a few days, as the incision begins to heal.

Other risks of spaying or neutering are related to hormonal changes that may come with the procedure. The same hormones that cause mating behaviors also affect other aspects of your pet's health. Consequently, surgical sterilization procedures that remove the gonads may put your pet at increased risk of a few health problems. Specifically, spayed and neutered dogs and cats are more at risk of becoming overweight. Fortunately, your veterinarian can provide you with personalized nutritional and exercise recommendations to help keep your pet on a healthy course. In dogs, other potential risks include urinary incontinence in females, and certain types of cancer and joint disease.