



Ovary Sparing Spay

Is ovary sparing spay right for my dog?

Your decision to spay your dog must be made on a case-by-case basis. This decision should be made between you and your veterinarian, taking into consideration your dog's age, breed, sex, health status, intended use, household environment and temperament. While there are health benefits to spaying, the benefits must be weighed against the health benefits of retaining the sex hormones achieved by leaving your pet intact (not spayed). These advantages and disadvantages pertain not only to the canine athlete or performance dog, but to all dogs regardless of lifestyle. Each patient must be considered individually – we do not have a one-size-fits-all answer for whether it is best to remove or not remove the gonads (ovaries) for your pet.

If you have determined you do not plan to breed your dog, you are now faced with other decisions.

What is an ovary sparing spay?

An ovary sparing spay is when one or both ovaries are left in the abdomen, near the kidneys, but the uterus and cervix are removed. Because the uterus is removed, the female will not be able to become pregnant, even if a mating occurs. The female will still have heat cycles and be attractive to male dogs. She will have little to no bloody vaginal discharge during her heat cycles.

If you chose surgery, at what age should you “alter” your pet?

If you opt for a non-traditional approach, the ovary sparing spay, when you leave ovaries but interrupt the reproductive tract to prevent fertility, you may consider doing this at any age. Because the female sex organs are left to function, your dog will still have her hormones. Research has shown that there can be positive effects of the sex steroid hormones. The sex steroids are hormones produced by the ovaries, and are only present in intact females. For canine athletes, many veterinarians recommend waiting until after 14 months of age (the age at which the growth plates have closed) for females to be neutered or spayed.

Should you opt for a traditional spay? At what age?

If you opt for a traditional spay, the age at which this is done is important. Removing the ovaries interrupts the hormonal axis of the sex hormones with the pituitary and other organs. There are age-related conditions to consider when making this decision. Since

gonadectomy prior to puberty or sexual maturity may make the risks of some diseases higher in certain breeds or individuals, the option to leave your pet intact should be available to you. If you opt to leave the gonads, the ovaries, this can be done at any age, as young as 8 weeks of age. If you opt to remove the gonads, ovaries, the age should be decided in a conversation with you and your veterinarian. Many times, we recommend waiting until at least 6 months of age, or older, usually past puberty, due to health and behavioral advantages.

What are the advantages of retaining the ovaries?

Health Advantages

1. Lower incidence of hemangiosarcoma (cancer usually found in the spleen or heart).
2. Lower incidence of osteosarcoma (bone cancer).
3. Lower risk of transitional cell carcinoma (bladder cancer).
4. Lower incidence of obesity, which may be due at least partly to increased metabolic rate.
5. Lower incidence of urinary incontinence (equivocal if spayed after 5 months but before their first heat).
6. Lower incidence of urinary tract infection.
7. Lower incidence of autoimmune thyroiditis and hypothyroidism.
8. A reduced incidence of cranial cruciate rupture.
9. A reduced incidence of hip dysplasia if not spayed before 5 months of age.
10. Anesthesia and surgery are not appropriate for some patients with high risk medical conditions.
11. Lower incidence of adverse reactions to vaccines.
12. Evidence of increased lifespan in females left intact past puberty. David J. Waters, associate director of Purdue University's Center on Aging and the Life Course and a professor in the Department of Clinical Sciences. "Taking away ovaries during the first 4 years of life completely erased the female survival advantage. We found that female Rottweilers that kept their ovaries for at least 6 years were 4 times more likely to reach exceptional longevity compared to females who had the shortest lifetime ovary exposure."

Behavioral Advantages

1. Less aggression towards people and animals.
2. A decreased incidence of cognitive dysfunction.
3. Less fearfulness, noise phobias and undesirable sexual behaviors.

The sex hormones, by communicating with a number of other growth-related hormones, promote the closure of the growth plates at puberty, so the bones of dogs spayed before puberty continue to grow. Dogs that have been spayed well before puberty can frequently be identified by their longer limbs, lighter bone structure, narrow chests and narrow skulls. This abnormal growth frequently results in significant alterations in body proportions and particularly the lengths (and therefore weights) of certain bones relative to others. This is related to increased orthopedic conditions in dogs spayed prior to puberty. In addition, sex hormones are critical for achieving peak bone density.

What are the disadvantages of retaining the ovaries?

Health Disadvantages

1. Increased risk of mammary (breast) cancer in intact females. This increased risk of mammary (breast) cancer occurs with each subsequent cycle and the benefit of spaying does not disappear until the animal reaches old age. Mammary cancer is one of the most common types of cancer in small animals. Mammary neoplasia is malignant under 50% of the time in dogs, but few dogs die from breast cancer due to low metastatic rates and early detection and treatment.
2. Increased risk of ovarian cancer in intact females. The incidence and mortality risk for ovarian cancer are very low.
3. An increased risk of pyometra in intact female dogs and this risk increases with increasing age. Varies by breed – review this with your veterinarian.
4. Risk of unwanted pregnancies if an OSS is not performed.

Behavioral Disadvantages

1. Inter-dog aggression may be due to competition for available territory or availability of cycling animals.
2. Increased risk of wandering and being hit by a car in intact dogs.
3. Ongoing sexual behaviors, including heat cycles in females who have had an ovary sparing spay.

Based on the research available, it is clear there are a number of health benefits of the sex steroid hormones. This benefit varies with age, sex, and breed. Therefore, although surgically altering your dog to be unable to breed is the responsible choice for most dogs, it is in the best interest of each individual patient for its veterinarian to assess the risks and benefits of gonadectomy (removing the ovaries versus ovary sparing spay) and to have your veterinarian advise you on what is appropriate for each individual pet at each stage of its life.

Please feel free to discuss this information and ask for advice on making these decisions with our doctor at Lake Shore Pet Hospital.