



Vasectomy

Is vasectomy right for my dog?

Your decision to neuter 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 neutering, the benefits must be weighed against the health benefits of retaining the sex hormones achieved by leaving your pet intact (not neutered). 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 (testes) for your pet.

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

1. Do I have another option besides a neuter? What is a vasectomy?
2. If you chose surgery, at what age should you "alter" your pet?
3. Should you opt for a traditional neuter?
4. What are the advantages of retaining the testes?
5. What are the disadvantages of retaining the testes?

What is a vasectomy?

A vasectomy is a surgical procedure where a portion of the vas deferens, the tube that carries sperm from the testicle where they are formed, to the outside to fertilize the female, is removed. By doing this, even if the male dog mates with a female, the mating will not be a fertile one. The testicles remain in the scrotum and continue to produce testosterone. The male will still be interested in and can mate with females, may still lift his leg to mark territory, is still prone to benign prostatic hypertrophy, and could develop a testicular tumor, perianal tumor, or perineal hernia.

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

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

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

If you opt for a traditional neuter, the age at which this is done is important. Removing the testes 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 testes, this can be done at any age, as young as 8 weeks of age. If you opt to remove the gonads, testes, 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 testes?

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 risk of prostatic adenocarcinoma (prostate cancer) in intact male dogs compared to neutered male dogs.
5. Lower incidence of obesity, which may be due at least partly to increased metabolic rate.
6. Lower incidence of autoimmune thyroiditis and hypothyroidism.
7. A reduced incidence of cranial cruciate rupture.
8. A reduced incidence of hip dysplasia if not spayed before 5 months of age.
9. Anesthesia and surgery are not appropriate for some patients with high risk medical conditions.
10. Lower incidence of adverse reactions to vaccines.

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 neutered before puberty continue to grow. Dogs that have been neutered 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 neutered 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 testicular cancer in intact males. The incidence for testicular cancer is common but malignancy and mortality are very low
2. An increased risk of prostatitis, benign prostatic hyperplasia, prostatic cysts and squamous metaplasia of the prostate in intact male dogs.\
3. An increased incidence of perineal and inguinal hernia and perineal adenoma in intact male dogs.

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. Increased incidence of urinary marking in intact males.

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 testes vs vasectomy) 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.