

TO NEUTER OR NOT TO NEUTER....

Some Facts To Consider Prior to Making The Decision

WHAT IS NEUTERING?

Neutering is the surgical procedure whereby the reproductive organs are removed rendering the dog incapable of producing offspring. In a male (dog), the technique is referred to as castration, in which the testicles (the organs responsible for the production of sperm) are removed from the scrotal sac. In the female (bitch), the technique is referred to as ovariectomy in which the most preferable routine removes both the ovaries and the uterus.

WHAT IS THE AVERAGE COST OF NEUTERING?

In an AAHA accredited hospital, the average cost for neutering a male is approximately \$80-\$100. Surgery cost for a female prior to estrus ("season", "heat") is approximately \$100-\$125; once a female has gone through estrus, cost is not as clear-cut and can range anywhere from \$125-\$200. Jump in cost reflects an increase in the complexity of surgery in both time and technique once the female reproductive organs have reached maturity. Also, many veterinarians will not perform surgery on a female who is in estrus at the scheduled time of surgery. Surgery performed during estrus increases the risk of hemorrhage both during and following surgery due to blood vessel dilation and increased blood flow to the uterus during this time.

AT WHAT AGE SHOULD A DOG BE NEUTERED?

From a medical perspective, most veterinarians will recommend surgery at or around 6 months of age, or prior to the first estrus of the female. Owners, particularly those having certain expectations from their dogs (i.e. show/field competition or breeding), should also take into consideration the pros and cons of early neutering to make an informed decision as to when to neuter.

WHAT ARE THE PROS TO EARLY NEUTERING?

Besides the most evident pros--guarantee against unwanted pregnancy, no mess associated with a female in estrus, etc.--there are other factors which make early neutering advantageous.

1. **BEHAVIOR.** Hormones produced by the reproductive organs can reinforce certain undesirable behavior. Excitability, wandering, rutting are instinctive behaviors intensified by increased levels of sex hormones. However, it is important to know that in many instances neutering alone will not stop these unwanted behaviors. Such behaviors are often more inherent within certain lines and not caused by hormones. Early neutering can assist by preventing hormone production which may stimulate the already present behavior pattern. Early neutering combined with obedience training serves as the best method to control and curb undesirable behavior.
2. **DECREASE IN RISK OF MAMMARY CANCER AND PREVENTION OF PYOMETRA IN FEMALES.** Research indicates that early neutering can reduce risk of mammary cancer in females to as little as 5% when neutering is performed prior to first estrus. Allowing a female to go through one or two-or-more cycles prior to neutering increases risk to 8% and 26%,

respectively. Another risk to intact females is the occurrence of pyometra, a life-threatening uterine infection. Neutering reduces risk of pyometra occurrence to 0%.

3. **PREVENTION OF TESTICULAR CANCER AND DECREASE IN RISK OF PROSTATIC DISORDERS IN OLDER MALES.** Currently, there is no evidence to indicate that early neutering has any bearing on occurrence of these disorders; however, it has been reported that males of middle-age or older which have not been neutered are at greater risk to developing certain disorders of the prostate and testicular cancer. Neutering reduces risk of testicular cancer to 0%.

WHAT ARE SOME CONS TO EARLY NEUTERING?

1. **URINARY INCONTINENCE IN THE FEMALE IS ASSOCIATED WITH EARLY NEUTERING.** Some female dogs develop urinary incontinence, the inability to control urination, after a variable period of time following surgery. There are several theories as to why neutering may bring about this disorder. One explanation is that trauma of surgery may cause scarring and subsequent improper function of the sphincter which controls urine flow. A second theory is that the uterine stump becomes adhered to the bladder neck following surgery and that subsequent retraction of the stump results in mechanical interference with the sphincter activity. Yet another theory, and perhaps the strongest argument against early neutering, associates urine incontinence with the decreased level of estrogen hormone following surgery. It is believed that estrogen maintains the tone of the mucosal lining of the sphincter and may be necessary during the growth and development period for proper mechanical function in later life. In support of this theory is the fact that urinary incontinence responds to treatment with estrogen therapy. Urinary incontinence can be caused by other factors such as trauma, infection, or hereditary abnormalities which are usually non-responsive to estrogen treatment. Should a neutered female develop urinary incontinence, it is essential that causes other than surgery be ruled out so that proper and effective treatment may be provided.
2. **LACK OF GENDER CHARACTERISTICS ATTRIBUTED TO EARLY NEUTERING.** Reproductive hormones such as estrogen in the female and testosterone in the male are also responsible for producing feminine and masculine traits, respectively. Early neutering which removes the source of production of these hormones prior to complete physical development and maturity of a dog results in individuals which may appear neither masculine nor feminine. Postponing neutering for 2-3 years in a male or allowing a female to go through one estrus cycle allows for development of gender characteristics.
3. **NEUTERING MAKES DOGS INELIGIBLE FOR CERTAIN A.K.C. SPORTING EVENTS.** Currently, the A.K.C. does not accept entry of neutered dogs for competition in conformation (with exception of the brood bitch or stud dog class). Neutered dogs, however, may compete and earn titles in performance trials (field trials, hunt tests, obedience, etc.).
4. **INABILITY TO BREED NEUTERED DOGS.** Though this may be overstating the obvious, it is important to remember that neutering is an irreversible procedure, therefore, serious consideration should be made prior to making the final decision. Should a question of whether to breed in the possible future be raised, neutering a male may be put off; delaying the neutering of a female requires more careful consideration given the increased risk of mammary cancer. In addition, it should be noted that the first breeding of a female should take place no later than 3-4 years of age, since the pelvic bones become less yielding as a bitch increases in age and add risk of complications during whelping of first litters in older bitches.

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