



## Basis for Position on Mandatory Spay-Neuter in the Canine and Feline

The American College of Theriogenologists (ACT) is the certifying college for veterinarians board certified in reproduction (specialists) and the Society for Theriogenology (SFT) is an organization of veterinarians with a special interest in reproduction in veterinary medicine. **The ACT and SFT believe that companion animals not intended for breeding should be spayed or neutered; however, both organizations believe that the decision to spay or neuter a pet must be made on a case by case basis, taking into consideration the pet's age, breed, sex, intended use, household environment and temperament. The use of generalized rules concerning gonadectomy (removal of the ovaries or testes) is not in the best interest of the health or well-being of the pets or their owners.** Each of the following considerations must be assessed for each individual animal and household.

### 1) Health concerns

- a. Research has shown that there can be positive effects of the sex steroid hormones. The sex steroids are hormones produced by the ovaries and testes, and are only present in intact males and females. Gonadectomy at any age deprives the body of the positive health effects of these hormones. Although in most cases, the benefits of spay-neuter outweigh the benefits of exposure to the sex steroids, this is not true in all cases. 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 an animal intact must be available to the pet owner.
  - i. Advantages of remaining intact:
    1. There is a decreased incidence of hemangiosarcoma in intact bitches and dogs.
    2. There is a decreased incidence of osteosarcoma in intact male and female dogs.
    3. There is a decreased risk of transitional cell carcinoma in intact dogs and bitches.
    4. There is a decreased risk of prostatic adenocarcinoma in intact male dogs compared to gonadectomized male dogs.
    5. There is a decreased incidence of obesity in intact male and female dogs and cats, which may be due at least partly to increased metabolic rate.
    6. There is a decreased incidence of urinary incontinence in intact bitches (equivocal if bitches are spayed after 5 months but before their first heat).
    7. There may be a reduced incidence of urinary tract infection in intact bitches.
    8. There may be a reduced incidence of feline lower urinary tract disease (FLUTD) in intact male and female cats which may be partly due to decreased obesity in these animals.
    9. There may be a reduced incidence of autoimmune thyroiditis and hypothyroidism in intact male and female dogs.
    10. There is a decreased incidence of diabetes mellitus in intact female cats and a possibly reduced incidence in diabetes mellitus in intact male dogs.
    11. There is a reduced incidence of cranial cruciate rupture in intact male and female dogs.
    12. There may be a reduced incidence of hip dysplasia in male and female dogs that are not gonadectomized before 5 months of age.
    13. There may be an increased incidence of capital physeal fractures in castrated male cats that may be partially due to increased weight gain in gonadectomized males.
- b. Research has shown that there are a number of detrimental effects of the sex steroid hormones. Spaying and neutering will remove these hormones and thus lower the risk of these conditions.
  - i. Advantages of being spayed or castrated:

1. There is an increased risk of mammary, testicular, and ovarian neoplasia in intact male and female dogs and cats.
    - a. There is an increased risk of mammary cancer with each subsequent cycle and the benefit of spaying does not disappear until the animal reaches old age.
      - i. Mammary cancer is one of the most common types of neoplasia in small animals.
        1. Mammary neoplasia is malignant 60% of the time in dogs and 90% of the time in cats.
    - b. The incidence and mortality risk for ovarian cancer are very low
    - c. The incidence for testicular cancer is more common but malignancy and mortality are very low.
  2. There is an increased risk of pyometra in both intact female dogs and cats and this risk increases with increasing age.
  3. There is an increased risk of prostatitis, benign prostatic hyperplasia, prostatic cysts and squamous metaplasia of the prostate in intact male dogs.
  4. There is a decreased incidence of perineal and inguinal hernia and perineal adenoma in neutered male dogs.
- c. Based on the research available, it is clear there are a number of health benefits of the sex steroid hormones and that this benefit varies with age, sex, and breed. Therefore, although spay-neuter is the responsible choice for most pets, it is in the best interest of each individual patient for its veterinarian to assess the risks and benefits of gonadectomy and to advise his/her clients on what is appropriate for each individual pet at each stage of its life.**
- 2) Behavioral concerns
  - a. Research has shown that there are positive effects of the sex steroid hormones on behavior.
    - i. Advantages of remaining intact:
      1. There is a decrease in shyness and hiding behavior in intact male and female cats.
      2. There may be less aggression towards people and animals in intact bitches.
      3. There may be a decreased incidence of cognitive dysfunction in intact male and female dogs.
  - b. Research has shown that there are negative effects of the sex steroid hormones on behavior.
    - i. Advantages of being spayed or castrated:
      1. Inter-dog aggression may be due to competition for available territory or availability of cycling animals.
      2. Urine spraying and inter-animal aggression is increased in intact male cats.
      3. There is a decreased risk of wandering and being hit by a car in neutered animals.
- 3) Provision of quality medical care
  - a. It is not in the animals' best interest to have the legislature dictate the time or need for surgical treatment.
    - i. This does not allow for medical decisions based on the individual animal's needs, its owners' needs or the needs of the household.
      1. Animals with medical conditions that may result in complications during anesthesia or surgery (i.e. heart murmurs, bleeding disorders).
      2. Providing appropriate aftercare for surgical patients may not be feasible in some home situations.
  - b. Restricting and reducing the pool of purebred animals will greatly hinder medical research of conditions that are particular to specific breeds, slowing down advances in medical and surgical knowledge. This may in turn impact the research available concerning health conditions common to both animals and people.
- 4) Public Health concerns
  - a. Making spay/neuter mandatory for licensure may make the public more hesitant to seek veterinary assistance because they are afraid of fines and legal repercussions as a result of failing to spay or neuter their pets by the prescribed time. By avoiding veterinary care for their pets, animals will be at increased risk of inadequate routine vaccination (including rabies) and

inadequate deworming programs which may in turn result in increased transmission of disease to the public.

The ACT and SFT make the following recommendations to continue moving toward effective methods of reducing the number of abandoned, unwanted and euthanized dogs and cats in the US and other countries where similar problems exist.

- a. Provide increased jurisdictional control to the AVMA Governmental Relations division, Animal Welfare Committee, and the APHIS-Animal Care division.
- b. Ensure suppliers to pet stores are providing adequate care for breeding stock and offspring.
- c. Support programs to expand the public awareness of pet overpopulation, acceptable breeding standards, and responsibilities of pet ownership. Provide the public a means to access assistance with concerns of pet health, ownership, behavior and management issues.
- d. Work with state and local rescue and humane societies to assemble accurate data on causes for relinquishment of dogs and cats to enable these organizations, federal and local governments, and veterinary organizations to address the fundamental causes of abandonment.
- e. Provide low cost spay/neuter facilities for economically disadvantaged persons and communities.
- f. Continue to work on reduction of feral cat populations.
- g. Establish programs to ensure access of breeders to proper reproductive care and counseling.
- h. Provide local or federal governmental assistance to registered rescue organizations to facilitate placement of unwanted pets.

The ACT and SFT do not believe that **mandatory** spay/neuter programs will significantly reduce the pet overpopulation problems, since most animals that are abandoned are relinquished because of behavior, health, economic and life changing conditions and not due to their reproductive status. In fact, in some European Union countries where gonadectomy is illegal unless deemed medically necessary (such as Norway) there are no significant problems with pet overpopulation, indicating that the pet overpopulation problem that exists in the United States is due to cultural differences on the importance of pets, the responsibility of pet owners, and the ability of the government and national agencies to properly educate the public. Although both organizations believe that most companion animals should be spayed or neutered, the ACT and SFT also strongly believe that it is not in the best interest of the animals to produce legislation regarding medical treatments. Therefore, both organizations oppose **mandatory** spay/neuter programs.

There are hundreds of references which provide scientific information on the effects of spay and neuter in both dogs and cats. We chose to provide the reader with a selected list of them. This reference list was compiled by Dr. Peggy Root-Kustritz, DACT.

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