Should Your Dogs be Neutered or Spayed and at What Age?

Two retrospective studies performed on Vizlas and Golden Retrievers have garnered a lot of attention in the veterinary profession. These studies looked at age of neuter/spay and potential benefits/consequences. Following is a short compilation of their findings.

Benefits in Male Dogs

- Reduction of Benign Prostatic Hypertrophy (BPN), prostatitis and prostatic cysts/abscesses, and perineal herniation. Risk of BPN is over 50% in intact male dogs.
- Prevents testicular neoplasia. *Dogs with undescended testicles in the abdomen (cryptorchid) are hereditary and have a high risk of testicular cancer and therefore should be neutered.
- Almost completely prevents risk of perianal gland tumors, of which 50% of these can be cancerous.
- Decreased aggressive tendencies (fighting with other dogs).
- Decreased tendency to roam.
- Decreased urine marking.
- Decreased number of unwanted dogs and euthanasia.
- Overall increase in lifespan (by 13.8%).

Potential Consequences in Male Dogs

- Increased risk of cancer of the prostate (rare in dogs).
- Obesity (increase in appetite and changes in metabolism).
- Increased potential for Cranial Cruciate (CCL) Disease in large breed dogs (especially early neuter/spay). Other reasons for CCL disease include degeneration (aging), breed, weight, trauma and activity.
- Increased risk of Hip Dysplasia in certain genders and breeds of dogs (especially early neuter). Less increased incidence in females. Development of hip dysplasia is multifactorial and is also affected by weight, rapid growth as a young dog, and genetics.
- Increased risk of other cancers in some breeds? Several breeds are at increased risk of tumors regardless of neuter/spay status.

Benefits in Female Dogs

- Prevention of pyometra (a potentially life threatening infection of the uterus). Risk is approximately 25% in intact females over 10 years of age, but can be seen as early as 5 years of age.
- Prevention of ovarian cysts.
- Reduction in risk of breast tumors. If spayed before the first heat, the risk is 0.5%; before the second heat the risk is 8%; and after the second heat the risk goes up to 26%. Fifty percent of breast tumors in dogs are cancerous. Intact females are 7 times more likely to get mammary cancer than spayed females.
- Decreased number of unwanted dogs and euthanasia.
- Overall increase in lifespan (by 26.3%).
Potential Consequences in Female Dogs

- Increased risk of urinary incontinence (2-20% of spayed females and occurs most often in larger dogs).
- Obesity (increase in appetite and changes in metabolism).
- Increased risk of other cancers in some breeds? Several breeds are at increased risk of tumors regardless of neuter/spay status.

Facts:

Tumor development is multifactorial and genetics and environmental exposure are important factors.

These studies were based on referral cases in teaching hospitals rather than cases from the larger pet population. Because of this, the numbers/results may be inaccurate.

Risks varied between early and late neutered/spayed dogs. Some studies did not have age of spay/neuter available and only differentiated between neutered/spayed and intact dogs.

Because cancer and arthritic changes often present in older patients, we must be cautious in looking at the data.

Management of diet and exercise can maintain appropriate body weight regardless of neuter/spay status.

There currently is no single recommendation regarding spaying/neutering that is appropriate for all dogs. Essentially, more studies need to be done.

The American College of Theriogenologists and Society for Theriogenology have jointly stated that dogs and cats not used for breeding should be spayed/neutered, although the decision should be made on a case-by-case basis.

Our Recommendations:

Recommendations on whether to neuter/spay will be individual and based upon breed, sex, and intended use.

Because of the high risk of mammary cancer and uterine infection, it is generally recommended that all females be spayed before their first heat cycle which is usually at 5-6 months of age.

It is generally recommended that large breed and giant male dogs not be neutered before 1 1/2 to 2 years of age.