



Early Age Spay/Neuter

A TOOL AGAINST UNNECESSARY EUTHANASIA



What Exactly is Spay and Neuter Surgery?

Surgical sterilization is usually the most complex procedure to happen during the life of most dogs and cats. Because spay and neuter are done so routinely, many equate this with simplicity.

As animal advocates, we must always consider our patients' comfort and safety when considering a drastic measure, like surgery, in the solution of a problem. Therefore let us look at exactly what these procedures are and why they are carried out before discussing the controversy of timing.

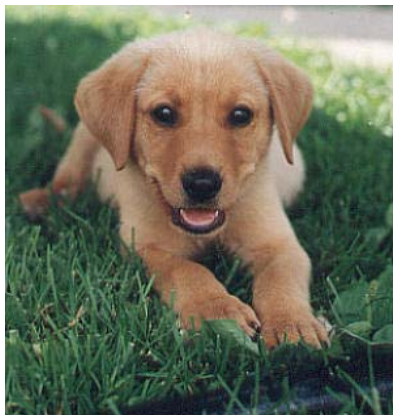


Photo: Laurie MacNeil

Female Spay or Neuter

These terms are used interchangeably for surgical sterilization of the female. Because it involves removing the entire uterus and both ovaries, the surgery is commonly performed via an incision on the belly of the patient. This invasion of the abdomen requires attention to sterile technique to prevent life-threatening infection, post-operatively.

Historically this procedure has been performed to solve the following problems:

1. stop the animal from heat (reproductive cycling) 3-4 times per year
2. prevent unwanted pregnancies initially, and in the last 20 years an attempt to solve the unwanted dog and cat overpopulation
3. provide preventive health care by decreased incidence of breast cancer (when spayed prior to heat cycles) and less reproductive tract disorder in the aged pet
4. decrease problems in behaviour during heat cycles (running away, sex-related fighting, trauma, etc.).

Male Castration or Neuter

These terms are used as synonyms, generally meaning the removal surgically of both testicles. The surgery is less dangerous because the organs in question are found in the scrotum, in most cases. Because of that fact the procedure is faster and less risky. Larger dogs require more overall care and technique.

Males undergo this procedure because the owner is usually trying to take advantage of the following:

1. attempt to control intermale aggression
2. curtail the animal from roaming particularly when there are females in heat within the immediate area
3. prevent testicular and prostatic disease later in life
4. control population by decreasing random breeding
5. decrease discharges from penile sheath in some cases.

The majority of the veterinary profession recommends these procedures around six months of age. Generally the importance of spaying the female prior to heat is stressed.

What is Early Age Spay/Neuter?

This term indicates the above procedures that would take place between eight and 16 weeks of age. Controversy over the age at which surgery can be done is usually centred on the following areas:

1. What are the long-term effects on patients' overall development, growth and health when sterilized so young?
2. Because this is an elective procedure, are there animal welfare issues over anesthetizing a patient at this age?
3. Are there behavioural problems created by this early surgery and the hormonal balances that are affected?



Photo: Linda Neukamm

Some Questions Now Answered

Anecdotal information is available on many early spay/neuter programs throughout North America that have been carried out over the last 50 years. The City of Chicago Animal Care and Control has sterilized all animals leaving their care since 1989.

Individuals associated with these programs report little or no evidence of problems. The most recent scientific study was done by Dr. Bloomberg et al at the University of Florida at Gainesville.¹ This study of cats divided up the patients in those neutered and spayed at seven weeks, those neutered and spayed at seven months and the remainder sterilized at one year. This project began in 1991 and the animals which were adopted out are still being followed. To this point there appears to be no significant concerns of health or behavioural abnormalities.

Many veterinarians were very concerned about the increased risk of anesthesia for an elective procedure. Very young animals offer quite different challenges to the veterinary anesthetist. These include slower metabolism and excretion of sedatives, tranquilizers and anesthetics. Because of less body fat and undeveloped heat regulatory mechanisms, these patients were at risk for hypothermia (dangerously low body temperature).

While many veterinarians would carry out anesthetics on such patients during emergencies, they were unwilling to consider doing so for a procedure that could take place later at what they considered a safer age. The primary problems have now been addressed and protocols for anesthesia and surgery have been published in professional journals from work performed at Angell Memorial in Boston operated under the auspices of the Massachusetts SPCA.^{2,3}

Animal behaviourists generally agree that neutering prior to sexual maturity results in more

acceptable pets. Their only real concerns in performing this surgery at eight to 16 weeks centre around the problem that this is during the "fear" period of development. Behaviourists suggest we need to monitor these early sterilized animals for fear-related problems and any signs that these patients would retain juvenile characteristics. While many pet owners would prefer their animals retain puppy and kitten characteristics, they would be unhappy if they could never effectively train them.

Understandably there has been reluctance among practising veterinarians to accept such a major change in philosophy with no body of data to suggest this is safe for the patient. However, there is really no body of data supporting spay/neuter at the traditional time of six months. This age was likely chosen to try and be sure the patients had fully developed immune systems. The early days of organized small animal veterinary medicine prior to the world of modern vaccines had large numbers of dogs and cats dying from canine and feline distemper. Once vaccines came along, these patients were actively protected from the major contagious diseases and this timing fit just prior to possible heat starting. Older anesthetics were also less reliable for tiny patients so it was naturally believed better to wait until the procedures could be carried out at the safest time possible for the patient.

Why Do We Care About This Controversy?

It is accepted generally that over 4% of the total population

of dogs and cats are euthanized annually because there are simply not enough homes. Over the last 20-30 years many different programs have been attempted to solve this problem. Surgical sterilization has often been touted as the answer. Certainly if spay/neuter procedures were carried out prior to new owners ever acquiring pets, it would sharply decrease the number of unwanted litters.

Veterinarians are in touch with people daily who want to rush their pets in quickly because they are ready to have a second litter before they have found homes for the first. Despite the good intentions of many owners to have their animals sterilized, they often will have one or two litters before they "get around to it." Many spay/neuter programs fail throughout North America because the owners do not return to have the surgery they promised to have done. It is simply too taxing in resources and manpower for most shelters and pounds to track these owners down and insist on mandatory spay/neuter.

It would seem quite obvious that by sterilizing these animals prior to adoption or sale we would markedly reduce the population of available animals.

What Effect Will It Have on Unwanted Dogs and Cats in Canada?

We must be realistic in what we expect from one program in a complex problem. Obviously it will have some impact by preventing the litters born to animals that the owner meant to have sterilized. It will affect,

however, only those animals coming through a program with such restrictions in place to adopt only sterilized animals. At present we have no clear data on where owners acquire the majority of their pets. It is felt the most common source is from friends and acquaintances and therefore these are not likely to be sterilized prior to acquisition.

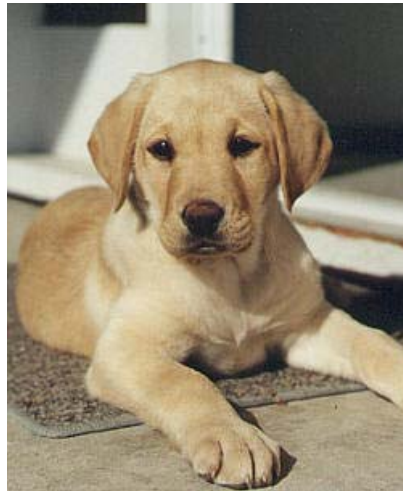


Photo: K. Grieve

The other factor is that the animals being euthanized are young adults, particularly cats, not puppies and kittens. Indeed many of these animals are spayed and neutered. For some reason the human animal bond has not been strong enough for the owner to seek out and claim stray pets. Many more are simply given up because the owner won't continue to keep them for a myriad of reasons. Work is currently taking place to evaluate this and determine how to combat the disposable animal problem.

What Should I Do About It?

If you feel that early spay/neuter programs could be advantageous to your animal

control or shelter situations take the following steps:

1. Bring this article to the attention of your local animal control or humane shelter.
2. Discuss the pros and cons of this procedure with your own veterinarians or local veterinary association. They should be willing to discuss with you their personal viewpoint as well as identify information from national or international veterinary associations.
3. If veterinarians you speak to do not use this technique now, ask whether they would investigate in hopes they would consider adding this service to their list of client offerings. Remind them of their last call from the owner wanting a quick spay because their female has "gotten out" again.
4. Try and get some consensus on the type of project you wish to begin. Cooperation of all the major players (animal control, humane shelters, veterinarians, pet stores and breeders) will have a much greater impact if there is a common front. There has been some interest from commercial pet breeders and professional dog breeders to consider sterilization prior to sale. This would stop the careless or unscrupulous owner from breeding animals sold as pet stock because they are not the best representatives of their breed.
5. Report your program to national and local humane organizations

and try to quantify results by statistically following what happens to the euthanasia rates in your particular area. Always document any other factors that would affect these numbers to be sure there is a cause and effect relationship (e.g. if the population is growing and the euthanasia rate stays level that could indicate success because you would expect increased euthanasia with more pet owners).

6. Finally be cautious not to oversell the perceived benefits of this technique until there are more confirmed data to show if it will be beneficial long-term to both the individual animal and society. Because this is still a surgical approach, there is little if any cost saving in simply doing the surgery at an earlier age. Another concern will be the reluctance of many hospital personnel to accept the idea of surgery on such tiny beings when they are first approached. Once the procedure can be shown to be done safely and effectively and the possible benefits (e.g. less euthanasia, fewer tax dollars expended on the over-population problem) are explained these people usually become advocates for these techniques.

This article is dedicated to Dr. Leo Lieberman of Florida. His countless hours of researching, travelling, networking and preaching this philosophy have brought us to where we are today.

¹ Developmental and Behavioural Effects of Prepubertal Gonadectomy. Mark Bloomberg, DVM, MS; W.P. Stubbs, DVM; D.F. Senior, BVSc; Thomas J. Lane, BS, DVM; University of Florida at Gainesville. Funded by the Robert H. Winn Foundation, February 1991.

² Faggella AM, Aronsohn MG. Anesthetic techniques for neutering 6-14 week old kittens, J AM Vet Med Assoc 1993; 202: 56-62.

³ Aronsohn MG, Faggella AM. Surgical techniques for neutering 6-14 week old kittens. J AM Vet Med Assoc 1993; 202: 53-55.

The Canadian Federation of Humane Societies is a national body comprised of animal welfare organizations and individuals whose purpose is to promote compassion and humane treatment for all animals. The CFHS is committed to putting an end to animal suffering and works with the public, government, industry, the scientific community, educators and the media on both the national and local levels toward this end.

Other References That Would be Useful:

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Author

Clayton MacKay, DVM
Ontario Veterinary College
University of Guelph

Design and Layout

Silver Creek Graphics
Pat Sample

Executive Director, CFHS

Frances Rodenburg

Program Director

Shelagh MacDonald