

Revisiting the Basics: The Importance of Sterilization

That little ounce of prevention carries weight in the battle against animal homelessness

BY BRENDA GRIFFIN, D.V.M.



A cat is anesthetized prior to surgery at the Humane Alliance Spay/Neuter Clinic of Western North Carolina. Stationary clinics like this one are often able to perform a higher number of surgeries per day than most mobile services, and have the advantage of being able to hospitalize animals overnight if needed.

A great deal of time, resources, and both physical and emotional energy are devoted to caring for the animals in shelters—and part of our goal should always be to keep them as healthy and happy as possible during their stays, no matter what their ultimate disposition will be.

But anyone who has spent time in an animal shelter recognizes how difficult it is to meet the needs of all of the cats and dogs who enter the shelter's doors. Logic dictates that humane groups should emphasize preventing cats and dogs from entering animal shelters through proactive strategies to keep them in their homes and, more fundamentally, decrease their birthrates. Indeed, given the financial, special, and resource restrictions of animal shelters, the only way to ensure the welfare of surplus cats and dogs is to prevent them from being there in the first place. Prevention truly is the best medicine.

At the heart of these proactive efforts to reduce the numbers of animals coming in to shelters are spay/neuter services.

Sterilization not only prevents reproduction and decreases the number of unwanted, unowned cats and dogs, but improves the odds that these animals will be retained in their homes. Multiple studies, including two published in the *Journal of Applied Animal Welfare Science* (JAAWS, Vol. 2, no. 1; Vol. 3, no. 3) and one published in the *Journal of the American Veterinary Medical Association* (JAVMA, Vol. 209), have indicated that being sexually intact is the leading risk factor for owner relinquishment of pet cats and dogs.

Neutering also protects feral cats and serves to promote their welfare. Studies have shown that ferals roam less and have higher body condition scores after neutering (JAAWS, Vol. 5, no. 3). In addition, the nuisance behaviors associated with urine marking, fighting, breeding, and roaming are dramatically reduced after neutering, making these cats much more likely to be welcomed in their neighborhoods.

Targeting Your Efforts

In order to maximize the impact of their programs, those working to develop effective



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spay/neuter efforts should target recognized sources of surplus cats and dogs in communities. These are the animals who would not likely be neutered without your help. They include pets from low-income households, whose owners need access to affordable spay/neuter services, and unowned, free-roaming and feral cats.

It is crucial to address free-roaming and feral cats since their reproduction frequently goes unchecked, making these animals both a cause and an effect of feline overpopulation. In fact, scientists estimate that free-roaming and feral cats may produce up to 80 percent of the kittens born annually in the United States, and that up to 50 percent of the total cat population in a given community may be feral (JAVMA, Vols. 223 and 225). Trapping and euthanizing cats has not been an effective method of population control, and the practice perpetuates the all-too-common public perception that cats are disposable. In contrast, the provision of affordable services to neuter free-roaming and feral cats raises awareness that cats require and deserve re-

sponsible care and enables people to “do the right thing” when cats appear in their neighborhood.

Ensuring the availability of affordable neutering services for all cats and dogs, regardless of ownership status, is key to reducing shelter intake. Sustainable programs that ensure a large majority of these animals are neutered are required; a community that wishes to improve the euthanasia rates at its shelters would do well to examine the availability of inexpensive spay/neuter services.

The Births Stop Here

Ensuring that all cats and dogs are neutered prior to adoption should be a crucial target for all animal shelters. Some organizations continue to allow adoption prior to neutering, trusting their clients to get the surgery performed—as they agree to do in their adoption contracts. But evidence suggests that many of those adopters who promise to get the surgery done after they bring their new pet home never follow through.

When organizations require neutering, but fail to perform the surgery prior to adoption, they inevitably end up adding to the number of litters born in their communities. Surveys reveal that despite contracts,

vouchers, and other incentives, national compliance rates for neutering following adoption average only 50-60 percent. Since 18 percent of owned cats and dogs are acquired from animal shelters, this results in a clearly unacceptable outcome: The 40-50 percent of sexually intact pets adopted out of shelters has the potential to contribute to pet overpopulation.

Even if your shelter has a 90 percent compliance rate with neutering following adoption, all that has to happen is for one dog to have a litter of 10 puppies, and you can end up right back where you started! According to an American Veterinary Medical Association policy statement on dog and cat population control, “public policies should prohibit the sale or adoption of intact dogs and cats by humane organizations and animal control agencies.” In many states, sterilization of animals adopted from shelters is mandatory.

Shelters must strive to take the “wiggly room” out of this part of the adoption process, and strive for 100 percent neuter-before-adoption of all cats and dogs, including kittens and puppies as young as 6 weeks of age. When shelters meet the goal of 100 percent neuter-before-adoption, they can take pride in knowing they are setting an ex-

ample of responsible pet ownership and are ensuring that their agency’s adopted pets will not reproduce.

What’s more, in the shelter environment, neutering is important for animal welfare, especially when shelter stays exceed more than a couple of weeks. In shelters where pets awaiting adoption may be held for longer periods, reproductive stress from estrous cycling in queens and bitches and sex drive in tomcats and male dogs can decrease appetite, increase urine spraying, marking, and inter-male fighting, and profoundly increase social and emotional stress. This makes neutering all animals awaiting adoption essential, since the rapid decline in spraying, marking, and fighting—and the elimination of heat behavior and pregnancy—will greatly reduce animal stress. It also makes for more appealing adoptees, and helps facilitate group housing and participation in supervised playgroups for exercise and emotional enrichment.

Snip ‘Em While They’re Young

It is important to recognize that in order to be truly effective as a population control measure, neutering must be performed before puberty. This eliminates any chance of an unintentional pregnancy. “Pediatric,” “early-age,” or “prepubertal” sterilization refers to the neutering of patients between the ages of 6 and 16 weeks, and is supported by the American Veterinary Medical Association.

Given that female cats may experience estrus (go into heat) as early as 4 to 5 months of age, delayed spaying of juvenile cats is likely to result in a significant number of unintentional litters. In fact, many owned cats are neutered following sexual maturity, but are allowed to have one or more litters prior to being spayed. Dogs are not quite as precocious as cats, but many attain sexual maturity by 6 months of age, making early neutering highly desirable for dogs as well.

Many owners—of both dogs and cats—still believe it’s best to allow their pets to have a litter, or at least to have a heat cycle, before they are spayed. This is a myth, and shelter staff should try to dispel it; contrary to the folklore, there are many health benefits associated with being spayed or neutered at an early age.



Being sexually intact is the leading risk factor for owner relinquishment of pet cats and dogs. But this fortunate pup won't have to worry about that.

In spite of general veterinary support of pediatric spay/neuter, many veterinarians continue to recommend that cats and dogs be neutered at 6 to 9 months of age. This recommendation is based not on a scientifically defined optimal age for neutering, but on a historical clinical sentiment that this is the appropriate age for these procedures. It was probably originally chosen because anesthetic and surgical techniques were less advanced at the time, and surgical success was more likely in a larger patient. Despite considerable advances in anesthetic and surgical techniques and published data that illustrate shorter surgical times and lower complications rates for younger patients, these recommendations have persisted.

The humane movement deserves much credit for its role in forging the way to our current understanding of the safety and benefits of early-age spay/neuter. Indeed, humane organizations began sterilizing young puppies and kittens more than 35 years ago! Understandably, many veterinarians expressed concerns and questions regarding the short- and long-term safety of sterilizing pediatric patients. In response to these concerns, numerous prospective and retrospective studies have been performed by veterinary scientists to verify the safety of early-age spay/neuter. Data from these studies suggest that early-age spay/neuter is not associated with serious health problems and is surgically and medically sound. Also, early-age spay/neuter offers many advantages, including safe anesthetic and surgical techniques, shorter surgical and recovery times, and avoidance of the stresses and costs associated with spaying while in heat, pregnant or with pyometra (uterine infection).

One of the biggest myths about early-age spay neuter is that neutering young male kittens may result in decreased urethral size, increasing the risk of urinary tract disease and blockage. Numerous studies have evaluated urethral size, function, and health in neutered cats. Based on radiographic studies of urethral size and sophisticated measures of urethral muscle tone, neither urethral diameters nor dynamic urethral function differ significantly between intact tomcats and neutered cats, regardless of age of neuter



The only way to avoid a surplus of cats and dogs is an effective spay/neuter program. Prevention truly is the best medicine.

(7 weeks versus 7 months). In addition, the incidence of urethral obstruction and lower urinary tract disease has not been shown to be different regardless of age of neuter.

The Vets, They Are A-Changin’

The good news is that more veterinarians are recognizing the benefits of early-age spay/neuter, and the American Veterinary Medical Association has long supported it. In private practice, many veterinarians are beginning to perform surgery immediately following the standard kitten- and puppy-hood vaccines, at 4 months of age. In 2008, the “Spay Before Five” Campaign (fivesaveslives.org) was launched to encourage owners and veterinarians to spay cats and dogs before 5 months of age—not only in order to ensure that they don’t reproduce, but to help them also reap the health benefits linked with being spayed prior to puberty. In shelters, many veterinarians are neutering kittens and puppies as young as 6 weeks old. Added benefits of these practices include quicker recovery times for the patients and lower costs. And most veterinarians find that neutering young puppies and kittens is technically easier than neutering them once they’re mature. It really is easier to spay a 5-pound puppy than an 80-pound Rottweiler mix!

Remember, timing of spay/neuter is key: It must occur before adoption and before

puberty. This will guarantee that cats and dogs don’t reproduce, and it will also afford the animals with many health benefits.

Those health benefits can help with successful “marketing” of spay/neuter, which is necessary to ensure owner acceptance and compliance with neutering of their pets. One of the best ways to “sell” spay/neuter is to inform pet owners about the health benefits associated with neutering cats and dogs. The medical benefits of spay/neuter are well-documented and include dramatic reductions in the risk of mammary cancer and elimination of pyometra, ovarian, and uterine cancer in females, and the risk of benign prostatic enlargement, prostatitis, perianal tumors and hernias, and testicular tumors in males.

Even though spaying cats and dogs before they have a litter should always be the goal, sometimes animals aren’t presented to us until they’ve already given birth—and sometimes their offspring are presented to the shelter. Many shelters seize the opportunity to educate pet owners at this time, and provide affordable neutering services for mother and babies. Some shelters even comb the classified ads for “free to good home” listings in order to reach some of the animals and owners who most need their help by providing neutering services for the parents of the litter.

Super Models

A variety of programs have been designed and implemented to serve as efficient surgical initiatives that provide accessible, targeted sterilization to large numbers of cats and dogs; many of them can provide excellent models to communities looking to establish programs of their own. These models include stationary and mobile spay/neuter clinics, mobile army surgical hospital (MASH)-style operations, shelter-based services, feral cat trap-neuter-return programs, and services provided through private practitioners.

In order for a community to support a stationary clinic, the National Spay Neuter Response Team (*humanealliance.org*) recommends a minimum human population of 250,000 within a 90-mile radius of

a proposed clinic site. In order to be self-sufficient, these clinics typically must be able to perform a minimum of 25 surgeries a day, five days a week, 48 weeks a year. Transport systems can be used to bring in cats and dogs from surrounding areas for surgery. The National Spay Neuter Response team provides a valuable and unique mentorship program and model for any organization that aims to establish a stationary clinic. (The model is based on the highly successful Humane Alliance Spay Neuter Clinic of Western North Carolina, which was profiled in *Animal Sheltering* in Nov-Dec 2005.)

Stationary clinics are often able to perform a higher number of surgeries per day than most mobile services, and offer the ad-

vantage of being able to hospitalize animals overnight if needed. Disadvantages include time and costs associated with establishing and maintaining a commercial facility, and the potentially limited service area of a clinic that stays in one place. An alternative stationary model that may counteract these disadvantages is the use of an existing veterinary hospital for regularly scheduled spay/neuter clinics. These so-called “in-clinic clinics” are especially valuable for serving the needs of low-income populations in rural communities.

Mobile spay/neuter clinics include MASH-style clinics and vehicles outfitted with surgical facilities. These models have lower overhead costs and can target any geographic area where services are needed. Disadvantages include limited space for animal housing and time constraints on spay/neuter efforts at a given location. Client communication and emergency care protocols must be especially well-planned; mobile clinics often leave an area after completing surgeries for the day, which can potentially leave animals without the benefit of veterinary care shortly after recovery and release to their owners. In some states, practice acts prohibit or limit mobile neutering services.

Recruitment and training of veterinarians to staff spay/neuter clinics is another crucial consideration. With this goal in mind, The Veterinary Task Force to Advance Spay/Neuter (VTFASN) was established in 2006 in order to improve the availability of resources and support for veterinarians in this practice area. Working with the Association of Shelter Veterinarians, in 2008, the VTFASN published veterinary medical guidelines for spay/neuter programs and launched an online spay/neuter resource library for veterinarians. (The report, published in *JAVMA*, Vol. 233, no. 1, was summarized in the Nov-Dec 2008 *Animal Sheltering*.)

High Volume, High Quality

One of the goals of the VTFASN is to relieve the common historical misperception that veterinarians who perform a high volume of surgical sterilizations per day or perform surgical procedures at a reduced cost don't provide quality care for their patients. While those situations may exist, this isn't typically



The National Spay/Neuter Response Team provides a mentorship program and model for any organization that aims to establish a stationary clinic. The model is based on the highly successful Humane Alliance Spay/Neuter Clinic of Western North Carolina, shown here.

the case: Increased volume and reduced costs aren't obtained by reducing quality. To the contrary, concentrating on a single practice area has already been used successfully in human surgery, both in the United States and abroad, to improve outcomes and reduce complications while also reducing costs. The goals of dedicated spay/neuter surgeons are achieved by efficient use of support staff, equipment, and protocols to provide safe, high-quality surgical sterilization at low cost to large numbers of companion and stray cats and dogs. In fact, the mortality rates reported by high-volume spay/neuter programs are frequently lower than those published for elective surgeries in small-animal private practice and teaching hospitals.

Networking with a variety of humane agencies and veterinarians is needed in order to get the biggest impact from spay/neuter programs and make these services available across regions. SPAY/USA, a program of the North Shore Animal League of America, is a nationwide network and referral service for affordable spay/neuter services (spayusa.org). With the assistance of SPAY/USA, many states have formed their own individual networks so they can work together to provide affordable services through a variety of programs throughout their state. These networks frequently use statewide toll-free telephone numbers to facilitate referral to local spay/neuter services.

Support from the local veterinary community also contributes to the success of spay/neuter programs. Historically, many veterinarians have opposed low-cost spay/neuter services, believing that they represent unfair competition for business. But pet owner surveys show that programs serve those who don't have a veterinarian or couldn't otherwise afford surgery. For this reason, people involved in spay/neuter programs should talk to local veterinarians about their goals in order to prevent or relieve misconceptions and foster collaboration and patient referral.

Creating a plan for sustainable funding of spay/neuter programs is also critical to their success. Models for both private and public funding have been successfully implemented. In some communities, public animal control funds are directed toward

neutering pets rather than sheltering and euthanasia. In this way, taxpayer money contributes to proactive measures to decrease shelter euthanasia. Private humane organizations and private veterinarians have both developed sustainable business models to serve targeted populations in need of low-cost or subsidized spay/neuter services. AS

Remember: Billions are spent finding cures. Little is spent on prevention.

- Spay/neuter is the central key to improving the welfare of cats and dogs.
- It must be accessible and widely available, and should target the recognized sources of shelter impoundments and euthanasia
- Timing is key! Sterilization should happen before adoption and before puberty.
- Set the example for responsible pet ownership! Always neuter before adoption, including juvenile animals.
 - It provides health benefits for the pet.
 - It eliminates reproduction.
 - It increases the chance the pet will become a permanent family member.
 - It fosters pride in staff knowing that they have ensured spay/neuter for pets under their care.

Each February, hundreds of shelters nationwide (and across the globe) organize events for Spay Day, shining a spotlight on spay/neuter as the key to ending the euthanasia of homeless pets and feral cats. Don't forget to participate in Spay Day 2010, which will take place next Feb. 23. Eligible organizations can earn funding to continue spaying or neutering animals after Spay Day is over. Visit humanesociety.org/spayday to learn more.

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