



How TNR Reduces Nuisance Complaints: What the Research Tells Us

Trap-neuter-return (TNR) is the only humane and effective way to reduce the number of community cats (also known as feral or ownerless, free-roaming cats). With TNR, community cats are humanely trapped, evaluated and spayed or neutered by a licensed veterinarian, ear-tipped to show they've been sterilized, vaccinated against rabies and distemper,¹ and then returned to their original outdoor homes to live out their lives. Done properly, TNR is effective at humanely managing and reducing the population of community cats, and offers the additional benefit of reducing nuisance complaints. The surgical sterilization of cats (spaying females and neutering males) eliminates the production of the hormones estrogen and testosterone, which reduces the likelihood of various mating-related behaviors (yowling, fighting, spraying, etc.) that lead to such complaints.

Please see the statements and studies below for compelling evidence that TNR reduces nuisance complaints.

Reviews and general statements

- According to researchers with the Alliance for Contraception in Cats & Dogs (ACC&D), “It seems to be widely accepted that male cats will be less likely to roam, urine spray, vocalize, and fight when they are sterilized.” Summarizing their review of the relevant research, the authors of a 2013 report from ACC&D write: “Credible studies indicate that neutering reduces urine spraying and roaming in search of mates by male cats, and spaying eliminates estrous-associated behaviors in female cats, including aggression, vocalization and perhaps efforts to escape outdoors in order to mate.” [1]
- As the Humane Society of the United States explains in *Managing Community Cats: A Guide for Municipal Leaders*, published in cooperation with the International City/County Management Association, “community-wide TNR programs are effective” in part because they “decrease nuisance complaints by eliminating or dramatically reducing noise from cat fighting and mating and odor from unneutered male cats spraying urine to mark their territory.” [2]
- A 1996 “review (of) currently understood reasons for the problem of overpopulation and animal control measures, including sterilization, legislation, and education” points out various benefits of TNR programs, including a reduction in the kinds of behaviors that can lead to nuisance complaints: “Sterilize and release ... programs not only address the overpopulation issue by preventing new litters, but also serve to reduce roaming, spraying of urine, and fighting among the cats.” [3]



Specific case studies

- TNR efforts in Harrington, Delaware, where 550 cats (93 percent of the pre-trapping count) were sterilized and vaccinated, resulted in a 98 percent reduction in the number of nuisance calls. [4]
- Researchers studying the impacts of a TNR program on the Texas A&M University campus over a two-year period reported that the program “generally has been viewed as a success by the veterinary faculty and the university’s pest control service.” And “based on the decrease in the number of complaints ... those (cats) who remain are less of a nuisance than previously they were.” [5]
- A 2002 paper published in the *Journal of Applied Animal Welfare Science* documents the impact of Orange County (Florida) Animal Services’ TNR program, launched in 1995: “Complaints have decreased gradually, and only rarely has it been necessary to move colonies.... Despite the change broadening the definition of a nuisance complaint in the last 2 years, complaints decreased in FY 2000/2001. There were no changes in procedure or code to account for this decrease.” [6]

¹ Not all TNR programs include a vaccination component; some, located in parts of the country where rabies in cats is a rare event, sometimes make this step optional. Vaccination is, however, considered “best practice.”

- A two-year University of Florida study, reported in *The Veterinary Journal*, documented a 66 percent decrease in shelter intake of cats from a “target” ZIP code in Alachua County, Florida, as compared to a 12 percent decrease in the rest of the county. According to the study, “The reduction in intake was most likely to be due to several factors, including a decrease in kitten births via neutering, decreased nuisance behavior associated with breeding and territorial defense, and creation of alternatives to impoundment.” [7]
- In Sanders County, Montana, cat-related calls to the only animal shelter in the county declined 84 percent (from 1,032 in 2009 to 166 in 2011) following the implementation of an intensive TNR campaign. [2]
- In Wichita Falls, Texas, community cat-related complaint calls to Wichita Falls Animal Control declined more than 90 percent (from 1,958 in 2010 to fewer than 200 in 2012) following the implementation of an intensive TNR campaign. [2]
- Documenting the results of their one-year observational study in “an urban region of Israel,” researchers reported “lower rates of aggressive interactions among cats in the neutered groups” and “also found that almost no neutered-neutered agonistic male encounters took place.” The results, published in the *Journal of the American Veterinary Medical Association*, led the authors to speculate: “The decreased agonistic behavior of the neutered male cats relative to unneutered males may result in decreased cat fighting and vocalizations and thus may lead to fewer injuries and decreased disease transmission among cats and decreased noise disturbance for their human neighbors.” [8] (Note: The anticipated decrease in disease transmission has been documented elsewhere. [9-11])
- Neighborhood Cats, based in New York City and one of the country’s most highly regarded TNR groups, was founded “when a few neighbors on the Upper West Side of Manhattan TNR’d a colony of approximately 30 cats living in the courtyard of one square block.” Adoptions of kittens meant fewer cats in the area, and “once the nuisance behavior abated, residents of adjacent apartment buildings more readily accepted the cats’ presence.” [12]
- Among the positive results of a three-year TNR program at the Gillis W. Long Hansen’s Disease Center in Carville, Louisiana, was a reduction in the kinds of vocalizations that can lead to nuisance complaints: “Although differences in vocalization are difficult to measure directly, unwanted noise from cats fighting and from mating calls was commonly heard during nocturnal visits to the cats’ living areas before the study. Three years later, nocturnal vocalizing had been greatly reduced and was not detected by the authors at any time during the three-year census.” [13]

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