

# College of Veterinary Medicine

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### **Early Spay/Neuter: An Overview**

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"RESOLVED, that AVMA supports the concept of early (8-16 weeks of age) ovariectomies/gonadectomies in dogs and cats, in an effort to stem the overpopulation problem in these species."

This resolution (1) passed an [AVMA](#) House of Delegates vote in the summer of 1993 and has also been approved by the ISVMA. As with other AVMA positions, it is up to each member to decide whether to adhere to this guideline. Having been taught that 6 to 7 months of age is the proper time to spay/neuter puppies and kittens, and having no information regarding the effects of early spay/neuter on the long-term health of the animal, many veterinarians have been reluctant to advise their clients to have their pets spayed/neutered at 6 to 7 weeks of age. However, there is an accumulating body of evidence indicating that the positive results quite possibly outweigh any remaining unknown risks.

Studies conducted on early spays and neuters on kittens (2-10) and puppies (9-13) report that the anesthetic and surgical risk is minimal, providing proper protocols are used. These protocols are described in these references and they do differ from those for a 6- to 7-month-old animal. It is emphasized and that, in addition, special care must be taken to choose only healthy animals for surgery; prevent hypoglycemia, hypothermia, and blood loss; and keep thorough records so that these animals can be followed.

These studies report that anesthetizing 6- to 7-week-old puppies and kittens was uneventful. Spays are reported to be easier and faster at 6 to 7 weeks than at 6 to 7 months because there is little subcutaneous fat to hinder entrance to the abdominal cavity and the lack of vasculature reduces hemorrhage. Finding organs was no harder than on the older animal. The speed of castrations at 6 to 7 weeks and at 6 to 7 months is the same, and the testicles are easier to remove and break down. Finally, the younger animals recovered faster and with less pain.

Several of these studies addressed the question of long-term effects on the health of the animal by comparing, at maturity, groups of animals neutered at 6 to 7 weeks and at 6 to 7 months. The resulting resting metabolic rate and predisposition to obesity of cats neutered in these two age categories have been compared after 24 months of age (5,7). The urethral diameters of male or female cats neutered in these categories was compared at 22 months of age (8).

Many aspects of skeletal dimensions, body weight and composition, physical maturation, secondary sex characteristics or behavioral development of cats (6) and dogs (11,13) neutered/spayed in the two groups were compared at one year of age. The only notable difference

found was that the animals neutered at 6 to 7 weeks of age were more likely to have immature external genitalia at maturity; this has no known clinical significance (6,8,11). The benefits of neutering are the same at either age: reduced risk of reproductive disorders and of mammary neoplasia.

Animal shelters, being closest to the tragedy of mass euthanasia, were first to adopt early spay/neuter policies. Even though the majority of animal care and control facilities have a mandatory spay/neuter policy, typical compliance rates are from 50% to 60%, in spite of pre-adoption screening, spay/neuter contracts, and follow-up reminders (14). Early spay/neuter provided the potential for 100% compliance by requiring pups and kittens to be neutered before being adopted out. However, only a small percentage of pets are acquired from animal shelters, so neutering these animals can only have a small effect on the overpopulation problem (10). If veterinarians were to recommend neutering pups and kittens at an early age, a significant decrease in unwanted animals could result.

These studies indicate that early spays benefit the animal, the owner, animal population control, and you, the veterinarian. The animal benefits because the anesthesia is fast and uneventful; surgical procedure is well tolerated and animals recover faster. If made part of the standard puppy/kitten vaccination program, it would also benefit owners by decreasing the number of veterinary office visits necessary upon acquiring a new pet. This convenience to owners would lead to increased compliance on their part and thereby decrease the number of unwanted dogs and cats produced each year. The veterinarian benefits because spays and neuters at 6 to 7 weeks of age are easier and faster than at 6 to 7 months, they help reduce animal overpopulation, and higher owner compliance means more business. It also gives veterinarians the opportunity to interact with shelters, pet stores, and breeders and be seen as leaders in animal welfare in our communities.

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