

New Evidence Shows Link Between Spaying, Neutering and Cancer

By Dr. Becker

A recent study raises even more questions about traditional spay/neuter practices for U.S. dogs.

The study, titled "Evaluation of the risk and age of onset of cancer and behavioral disorders in gonadectomized Vizslas," was conducted by a team of researchers with support from the Vizsla Club of America Welfare Foundation. It was published in the February 1, 2014 issue of the *Journal of the American Veterinary Medical Association*.

Like previous research on [Rottweilers](#) and [Golden Retrievers](#), the results of the Vizsla study are a call to action to take a closer look at current neutering recommendations.

Vizsla Study Results

The Vizsla study involved 2,505 dogs, and reported these results:

- Dogs neutered or spayed at any age were at significantly increased risk for developing mast cell cancer, lymphoma, all other cancers, all cancers combined, and fear of storms, compared with intact dogs.
- Females spayed at 12 months or younger, and both genders neutered or spayed at over 12 months had significantly increased odds of developing hemangiosarcoma, compared with intact dogs.
- Dogs of both genders neutered or spayed at 6 months or younger had significantly increased odds of developing a behavioral disorder, including separation anxiety, noise phobia, timidity, excitability,

submissive urination, aggression, hyperactivity, and/or fear biting.

When it came to thunderstorm phobia, all neutered or spayed Vizslas were at greater risk than intact Vizslas, regardless of age at neutering.

- The younger the age at neutering, the earlier the age at diagnosis with mast cell cancer, cancers other than mast cell, hemangiosarcoma, lymphoma, all cancers combined, a behavioral disorder, or fear of storms.
- Compared to intact dogs, neutered and spayed dogs had a 3.5 times higher risk of developing mast cell cancer, regardless of what age they were neutered.
- Spayed females had nine times higher incidence of hemangiosarcoma compared to intact females, regardless of when spaying was performed, however, no difference in incidence of this type of cancer was found for neutered vs. intact males.
- Neutered and spayed dogs had 4.3 times higher incidence of lymphoma (lymphosarcoma), regardless of age at time of neutering.
- Neutered and spayed dogs had five times higher incidence of other types of cancer, regardless of age of neutering.
- Spayed females had 6.5 times higher incidence of all cancers combined compared to intact females, and neutered males had 3.6 times higher incidence than intact males.

Vizsla Researchers Conclude More Studies Are Needed on the Biological Effects of Spaying and Neutering, and Also on Methods of Sterilization That Do Not Involve Removal of the Gonads.

The Vizsla researchers concluded that:

"Additional studies are needed on the biological effects of removing

gonadal hormones and on methods to render dogs infertile that do not involve gonadectomy. Veterinarians should discuss the benefits and possible adverse effects of gonadectomy with clients, giving consideration to the breed of dog, the owner's circumstances, and the anticipated use of the dog."

(The full Vizsla study can be downloaded [here](#).)

I absolutely agree with the researchers' conclusion that studies are needed on alternative methods of sterilizing dogs that do not involve removing the gonads. As I explained in an earlier [video](#), over the years I've changed my view on spaying and neutering dogs, based not just on research like Vizsla study, but also on the health challenges faced by so many of my canine patients after I spayed or neutered them. These were primarily irreversible metabolic diseases that appeared within a few years of a dog's surgery.

My current approach is far removed from the view I held in my early days as a vet, when I felt it was my duty and obligation to spay and neuter every dog at a young age. Nowadays, I work with each individual pet owner to make decisions that will provide the most health benefits for the dog.

Whenever possible, I prefer to leave dogs intact. However, this approach requires a highly responsible pet guardian who is fully committed to and capable of preventing the dog from mating (unless the owner is a responsible breeder and that's the goal).

My second choice is to sterilize without desexing. This means performing a procedure that will prevent pregnancy while sparing the testes or ovaries so that they continue to produce hormones essential for the dog's health and well-being. This typically involves a vasectomy for male dogs, and either a tubal ligation or [modified spay](#) for females. The modified spay removes the

uterus while preserving the hormone-producing ovaries.

The cases in which I opt for a full spay or neuter usually involve an older dog who has developed a condition that is best resolved by the surgery, for example, **pyometra** (a uterine disease in female dogs), or moderate to severe benign prostatic hyperplasia (an enlarged prostate in male dogs) that is impeding urination and/or causing the animal discomfort. Generally speaking, mature intact dogs have had the benefit of a lifetime of sex hormone production, so the endocrine imbalances we see with spayed or neutered puppies don't occur when dogs are desexed in their later years.

A Word About the Problem of Homeless Pets and Spaying/Neutering

It's important to understand that I'm not advocating the adoption of intact shelter animals to people who may or may not be responsible pet owners. Shelter veterinarians don't have the time or resources available to build a relationship with every adoptive family, so all the animals in their care must be sterilized prior to adoption to prevent more litters of unwanted pets.

Would I prefer that shelter vets sterilize rather than desex homeless pets, so that those animals, too, retain their sex hormones? Absolutely I would. But for the time being, the U.S. shelter system isn't up to that particular challenge, nor are DVMs in this country routinely trained in how to perform anything other than full spays and neuters.

So while I totally agree with the need to sterilize shelter pets, I don't necessarily agree with the method of sterilization being used.