At What Age Should I Spay Or Neuter My Dog or Cat?

What Are The Advantages And Disadvantages Of Neutering My Pet?

Revisiting The Idea Of Early-Age Neutering



Ron Hines DVM PhD click for a larger image

"Peer pressure and mainstream thinking may discourage novelty and innovation"

P. Hunter

I have been surgically altering dogs and cats for many years. Over the years, my thoughts on this subject have changed. During most of my career, it was a given that all pets should be neutered. We accepted that without question. Most veterinarians still do.

But with time, I began to realize that many of the reasons given for this surgery were not based on science or the long-term welfare of our individual pets. Years of observing pets in my practice led me realize that many of the problems I was treating could be traced back to the pets being surgically neutered or neutered too young.

Are There Negative Health Effects of Spay/Neuter?

Yes. There are many. I will get to them later.

<u>Do The Negative Effects For My Pet Outweigh The Positive Effects Or Vice Versa?</u>

No one can answer that question for you. It is convenient to make blanket, all-inclusive statements on what decisions are right or wrong. But that is a foolish approach – at least when it comes to neutering your pet. What you should do is consider the facts. There is plenty of information out there and you don't need to be a scientist or a veterinarian to understand it.

What Are The Benefits Of Spaying or Neutering My Pet?

Less Mammary Gland Tumors

Veterinarians know that the lumps they see in older female dogs occur most commonly in the pets that have not been spayed or the ones that were spayed after they had had more than two heat periods. During heat (estrus), certain hormone levels in your pet spike. The more spikes or heat cycles your dog experiences, the more likely these tumors are to occur.

These lumps and nodules grow slowly as the pet ages. They are tumors but they rarely become dangerously malignant or threaten your pet's Iife. They are very easy for your veterinarian to remove. Like prostate problems in men, they are a common part of the aging process in unneutered, female dogs.

Mammary gland tumors are much rarer in female cats. As in dogs, spaying <u>reduces</u> their frequency. But unlike dog, when they do occur they are considerably more serious and need immediate veterinary attention.

No Pyometra

Pyometra is a condition where pus forms in your pet's <u>womb</u> due to repeated hormonal over-stimulation of your female pet's reproductive tract. Estimates of its incidence in older, unspayed, female dogs range from 1-15%. When it occurs, it can be treated successful by surgically removing the womb.

No Estrus Mess

Most unspayed female dogs are messy during the early part of their heat cycles (proestrus). This occurs every 5-10 months and last 6-11 days. During their estrus period, female dogs often urinate more frequently, lick their genitals, drip bloody fluids and crave attention. There presence will attract the stubborn amorous attention of un-neutered male dogs running loose in your neighborhood.

No Humping Dogs

Many of my clients are embarrassed when they find their male dog mounting another dog - or them. Unspayed female dogs occasionally do this as well. Neutering male dogs usually ends this behavior. Male dogs are very persistent in getting to female dogs that are in heat. If a loose female dog in heat passes your yard, it is not uncommon for your pet to dig out or escape to join it.

Less Wandering

Loose, neutered dogs tend to stay closer to home and get into less trouble around the neighborhood. The same goes for neutered cats. If you let your pets run loose and unattended, they will live longer before they are killed by cars than they would have if you had not neutered them. But why are your pets out-and-about unattended?

Less Aggression

Dogs with problem aggression tend to gain weight and become more phlegmatic, and calm when they are neutered. However, because aggression has many causes, neutering does not always end the problem.

No Urine Spray

Un-neutered male cats and female cats fighting for territory tend to spray urine. This behavior usually ceases in male cats once they have been neutered.

Testicular Cancer

The rate of development of testicular tumors in normal old dogs is thought to be about 7%. That means that of 100 un-neutered male dogs, 7 will develop these tumors. These tumors, when they occur in older pets, can usually be removed very successfully.

Dogs whose testicle(s) do not <u>descend</u> from their abdomens have a considerably higher rate of a <u>particular</u> testicular tumor later in life. In these dogs, the solution is to neuter them once they are mature.

Testicular tumors are very <u>rare</u> in cats.

Prostate Disorders

Prostate cancer is quite rare in dogs and cats. But prostate enlargement is a normal sign of aging in un-neutered male dogs – as it is in men.

In male dogs, prostate enlargement is sometimes associated with problems defecating. It rarely causes the urinary problems seen in men. Neutering your male dog removes the hormones that are though to be responsible for this condition. This can be done when, and if, a problem arises in your pet. There are alternative drug therapies that are sometimes more <u>effective</u> than surgery.

It is not a commonly recognized problem in cats.

Tumors Surrounding Your Pet's Anus

These tumors are called perianal adenomas and adenocarcenomas. They occasionally occur in old, un-neutered male dogs. Eighty percent of these tumors are benign. They are the third most common tumor in old male dogs and they occasionally occur in females as well. The benign form occurs less commonly in neutered male dogs. But studies indicate that the number of the more dangerous adenocarcenomas form is not decreased by neutering (same ref). Any that are still under the

control of sex hormones should respond equally well to GnRH medications.

They are not a recognized problem in cats.

Helps Solve The Pet Over-population Problem

This is definitely true. If you are an irresponsible pet owner who let's your pets run loose in the neighborhood, this is a legitimate benefit of neutering. This is also an excellent way to make a "social statement" about your concern for animals in general.

What Is The Negative Scientific Information About Spay/Neuter

The Pet Overpopulation-Pet Neuter Fallacy

Although it is true that neutered pets cannot breed, the pets that contribute to the pet over-population problem are not the ones owned by responsible people who have their pets spayed and neutered. It is not the fact that a pet is un-neutered that causes pet over-population any more than dogs having teeth is the cause of human dog bites. Owner education and stiff fines for people whose pets run at large are much more effective in controlling pet over-population than surgical procedures.

Distorted Bone Structure

Distortion of your pet's body by early-age neutering contributes to a number of diseases – some of which I cover below. As your pet matures, hormones produced by its testes and ovaries determine the shape and length of its bones. When these hormones are removed too soon through neutering before puberty, the bones grow for a longer period and to different proportions. This results in your pet becoming taller with abnormally shaped bones. This change in bone conformation means that angles and forces between bones and ligaments are changed from their natural design and could be more likely to fail. Your dog's knees are particularly at risk. This phenomena has not been studied extensively in dogs, but it has in immature livestock and in children.

Osteosarcoma (Bone Cancer)

We see these bone tumors most frequently in large and giant breeds of dogs that are already predisposed to them through their excessive bone growth. Spay-neuter before one year of age significantly <u>increases</u> the development of these tumors

The problem is very rare in cats and there is no data as to any effect spay/neuter might have.

Hypothyroidism

Hypothyroidism is much more common disease in dogs than cats. Neutered dogs are at a significantly <u>higher</u> risk of developing this condition than those that are not. You can read more about hypothyroidism <u>here</u>.

Weakened Ligaments, Orthopedic Disorders And Subsequent Arthritis

It is difficult to decide when torn <u>cruciate</u> ligaments, hip <u>problems</u> and <u>arthritis</u> occur due to the obesity that often accompanies neutering or when it is due to a decrease in joint strength and altered structure that also accompanies neutering. The inactivity of many neutered pets may also contribute to this. Whatever the cause, veterinarians and others have noticed that all these problems <u>increase</u> in frequency in neutered pets.

Hip Dysplasia

Some dogs that are neutered young are <u>prone</u> to develop hip dysplasia. However, there are many factors responsible for the development of hip dysplasia and spay/neuter is probably not a major one. You can read more about this problem <u>here</u>.

Obesity

Neutered pets tend to get fat. There is no denying this. There is also no denying that limiting your pets food intake will prevent this. When they do become too chubby, they suffer an increased risk for all the problems that overweight humans face.

Cruciate Ligament tears

Spayed and neutered dogs have a significantly <u>higher</u> incidence of this disease. You can read more about cruciate ligament problems <u>here</u>.

Urinary Tract Problems

Veterinarians have noticed that it is spayed, overweight, female dogs that suffer the most urinary tract infections. Whether this is due to their obesity that causes vulvar inflammations or the urinary incontinence of low post-spay estrogen levels is unknown. When these female pets were neutered too young, some required later surgery to repair their poorly developed vulvas.

This does not appear to be a significant problem in neutered male dogs or in neutered female cats. There has been speculation, over the years, that early neutering of male cats leads to urethral blockages (ref FUS). Most cats that develop blockages are neutered males – but then almost all our male pet cats are neutered.

Urinary Incontinence

This is primarily a problem in spayed female dogs. Many of these dogs get better when given female hormone – the ones no longer present after spay.

Urinary Tract Infections

These too are more common in spayed female dogs. But these dogs tend to be overweight which may account for their increased risk.

Diabetes

Neutered pets tend to get fat. And in fat cats, diabetes risk increases dramatically. The situation is not as clear in dogs. The relationship between missing sex hormones, diabetes, obesity, and bone strength is more studied in humans. There is no reason to assume it would differ significantly in our dogs and cats.

Hemangiosarcomas

This form of cancer is most common in dogs. Statistically, it occurs considerably more frequently in pets that are neutered.

Do Veterinarians Disagree On This?

Yes.

There is considerable disagreement.

What About The Diseases that Spay/Neuter Advocates Bring Up As Reasons For Me To Neuter My Pet?

There are inherent risks in living. All lives - ours and our pets - come to an end one day. All of us die from something specific, not "old age". Something in our bodies gives out first. It is true that spay /neuter lowers the risk of your pet suffering from certain specific problems – but there is no credible evidence that neutered pets live any longer. Your pet will simply leave this Earth due to some other cause. There are lots of legitimate reasons for neutering pets - but living longer, healthier lives is not one of them.

Spay and neuter is said to be less common in Europe. But there is no evidence that pets in Europe live shorter lives that pets in the United States or Canada. Despite this, advocates of early spay/neuter tell pet owners that their pet's will live longer if they are neutered. Studies indicate the opposite is true. In a 2009 study, un-neutered female rottweiler lived an average of 30% longer than a similar number of rottweilers spayed in their first 4 years of life. (ref). This mirrors the results of a study in nurses in which lifetime decreased significantly when, as patients, they had their ovaries removed before the age of 50. (ref)

It will be easy to accumulate statistics that show that neutered pets live longer than intact pets and that will probably be done soon by spay/neuter advocates. But it will be very hard for them to credibly show that it is not just pet and owner lifestyles that accounts for this. Selectivity and cherry-picking allow statistical data to be manipulated in any way the authors of the study desire. That goes for both sides of this issue.

If I Decide To Have My Pet Neutered, What Can I Do To Minimize Risks?

I am not against neutering pets at the right time and for the right reasons. If you have a kitten, or puppy, do not rush to have it "fixed". Confining your pet to your home as a teenager is quite sufficient.

If you have a female dog, let it pass through one heat cycle before considering having it spayed. The hormone symphony that accompanies heat affects all of your pet's <u>body</u>, not just its reproductive tract. This is something that proponents of early spay/neuter do not understand.

If you have a male dog, consider if you really need to have this surgery performed. My Labrador, Max, is not neutered. He is the proud father of zero puppies and will stay that way.

Mounting family members is a normal rite of passage and a sign of approaching puberty in puppies and adolescent dogs. If normal adolescent mounting behavior embarrasses you - remember it will pass, given a little patience and some instruction. It is important for your pet's long term health that these hormones flow it its body for at least a while.

If you decide you must neuter your male dog, do not do it until well into their second year. If your pet has medical or serious temperament problems that might benefit from an earlier neuter, you might consider it a bit earlier. But there are often non-surgical ways to tackle the problem - try them first. Some owners have their male dogs neutered only to find that the problem for which it was done did not go away. If you are uncertain, have your pet receive a reversible sex hormone blocking injection first. If it has no effect on the problem, removing its testicles will not either.

Neutering pets at an older age necessitates keeping them trim. Fat pets are harder for veterinarians to work on and blood vessels become harder to identify and tie off securely. Dogs and cats will eat to please you if you over feed them. There is a long list of health reasons not to do that.

How Long Will The Practice Of Early Age Spay/Neuter Continue?

That will depend on the efforts of pet owners like you. I am confident that there will come a time when pediatric spay/neuter of our pets is considered to have been a major error in judgment.

Please pass this around!

*Jerky Treats Causing Fanconi Syndrome in Dogs *

Background

The American Veterinary Medical Association recently has posted a Media Alert warning veterinarians that multiple brands of jerky treats manufactured in China have been making dogs sick.

No cats have been reported to be affected. A contaminant has yet to be identified. At this time there is no list of specific brands affected and there is no recall in effect, so these products are still being sold to consumers.

Presenting Signs and Laboratory Findings

The dogs appear to be developing an acquired Fanconi's syndrome which appears to be transient. Small dogs with a history of ingesting jerky treats (mostly chicken jerky) are typically affected. Clinical signs include vomiting, diarrhea and lethargy.

Physical examination findings have been unremarkable. In addition to mildly elevated liver enzymes, the most common blood abnormalities include severe decrease in Potassium, called hypokalemia, along with acidosis and glucose (sugar) in the urine and granular casts on urinalysis. Elevated kidney enzymes; Blood Urea Nitrogen and Creatinine may or may not be consistently found.

Testing Recommendations

For dogs with apparent Fanconi's syndrome, we recommend a CBC, chemistry panel including electrolytes, urinalysis and urine culture. Blood gas analysis, if available, is ideal. Additional testing for other causes of acute kidney damage including Leptospirosis blood testing is also recommended. Kidney x-rays, and Fanconi screens on urine may be warranted in some cases.

This veterinarian is seeing dogs with apparent acute liver failure problems associated with canine treats made by Delmonte.

For more information, veterinarian, Dr. Carol Osborne can be reached toll free at 1-866-372-2765.

Technorati Tags: Dr. Carol,pet news,pet health,Fanconi's syndrome,small dogs,jerky treats

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