



## **SPAYING OR NEUTERING –PRO’S AND CON’S**

Opinions are very contradictory when it concerns spaying or neutering dogs. There are people with the opinion that, in order to prevent unwanted litters, dogs not meant for breeding should be altered. Others believe that spaying or neutering is taking away body-parts which is, in other words, amputating the animal. And as each body-part has its own specific function/s and relates to other body parts, altering dysfunction the animal partly with possible health problems as a consequence.

There is a lot to say about both opinions. The most healthy way for the dogs, naturally, is managing the females during their heat periods and preventing males from roaming unsupervised. However, this is difficult with strays and there are many people unwilling to do so. In these cases altering is recommended in order to manage the many unwanted litters, prevent the many injuries and venereal diseases caused during mating and the stress and complications for the bitch during gestation, whelping and raising a new litter.

Although, nowadays, it's quite commonly accepted to spay or neuter a dog, preferable at a young age (6 to 7 months), there are indications that one should be careful and critical before making such a irreversible decision. This is especially the case when the dog hasn't finished growing yet.

A dog's growth is for an important part influenced by its re-productive hormones. Taking away the internal re-productive organs at a young age, before the dog is fully grown, causes an extended bone-growth period, making the bones longer and thinner, with as a result an increased chance on skeleton problems. It also can lead to relatively under-developed external re-productive organs, such as the vulva and the penis, with an increased chance on infections of the skin around these parts. Further, extended research found an increase in incontinence under the early spayed females which is, most probably, the case in males as well.

Females, spayed before their second heat, have a decreased chance on mammal gland cancer compared with those spayed at a later age. However, this doesn't apply to other forms of cancer. So it is found that there is more chance on haemangio-sarcoma (a relatively often occurring tumor in heart and spleen) and osteo-sarcoma (bone-cancer) in these (early) spayed females. Researchers and veterinarians have also discovered that altering can influence the thyroid function in a negative way, with all its negative side-effects, such as skin problems, heart problems and behavioral problems.

Spaying and neutering can influence the animal not only on physical level, it also can have effect on the behavioral level.

Many people claim that since their dog is neutered it has become more calm and easier to manage. Studies on the effects of neutering male dogs show similar results. Like those conducted in the seventy's by the University of Pennsylvania, showing a more than 70% improvement in the males' behaviors, regardless of the age, and by the Canine Studies Institute with an even slightly higher success rate. An extensive study conducted by Ben

Hart, University of California, came up with the following results: 90% reduction for cases of roaming, 60% for intermale aggression, 60% for mounting people and 50% for marking in the house. Neutered dogs are also less likely to mount other dogs and are more willing to accept authority from the owner or other people of the household. That there isn't an 100% improvement after neutering is often a result of the learned factor as behavior is not only influenced by a dog's hormones but also by its environment, by what it learns. Therefore, neutering dogs as a consequence of a behavior problem almost always has to go together with behavior modification therapy.

Studies on the effects of spaying bitches show hardly any improved behavior. This is probably because females aren't hormonally active the whole year round but only twice a year. Evidence has been found that, where it concerns bitches under two years of age with a tendency to dominance aggression, 40% of them develop an abnormal degree of masculinity with an increase in aggressive behavior as a result. Therefore, the tendency towards dominant aggressive behavior should be overcome before spaying. In case one may still decide to continue with the surgery, it's best to wait till after the female is both physically and mentally matured.

When, however, it concerns competitive fights between females in a multi-bitch household, which often start during periods of heat, spaying (together with behavior modification) can make a difference.

And, as mentioned before, spaying and neutering increases the chance on hypo-thyroidism. As side-effects mental disorders can develop like lethargy, exercise intolerance, mental dullness, but also increased aggression, fearfulness or hyper-activity.

When summarizing the pro's and con's of spaying and neutering, I think, the biggest pro's are the prevention of unwanted puppies in a world where there are already too many. Also injuries and illnesses from the mating are prevented as well as the stress and complications for the bitch during gestation, whelping and raising a new litter. Further, the chance on cancer of the re-productive organs reduces. On the mental level, males tend to become more calm, housebound and manageable. In females spaying is primarily effective when it concerns interfemale aggression within the same household, provided that there isn't already a huge learned factor involved.

The con's are more on the physical level, with increased chances on hypo-thyroidism, osteo-sarcoma and haemangio-sarcoma, incontinence in females and probably in males as well, infections of the external re-productive organs and skeleton problems. On mental level there is a chance on fear- or dominance aggression as a side-effect of hypo-thyroidism or, when spayed before mental maturity, on dominance aggression in females with already a tendency to dominant behavior.