**Spaying (Ovariohysterectomy): The benefits in dogs**

Newspaper, radio, and television articles about pet overpopulation are frequently seen. They stress the fact that too many kittens and puppies are produced every year and that there just are not enough potential owners to go around. Shelters are full, and healthy dogs are euthanized monthly. Sterilization procedures, so cats and dogs are incapable of breeding, are an obvious solution, if a large percentage of the animals can be treated. Performing an ovariohysterectomy or "spaying" female animals is the best approach to decreasing the number of kittens and puppies. Being veterinarians, we also know that spaying and castrating pets are important to the average pet owner because of the health and wellbeing of their animal. So, although you may spay your animal in a effort to help a national problem, in doing so, you increase their chances of living long and happy lives!

Having a litter of puppies may seem like a fun thing to do. Some even believe that it helps their female dog "develop more completely" or become a better pet in some way. Neither is true. Becoming pregnant and having puppies in no way alters the maturity level of your dog, either physically or mentally. In addition, not all pregnancies go smoothly. Difficult labour, puppy mortality, and potential health problems in the mother, such as uterine and mammary gland infections, can take all the fun out of the experience. Additionally, it can be difficult to find caring homes for a large litter of puppies, despite all the people that originally suggested they wanted one!

**Ovariohysterectomy:** An Ovariohysterectomy (OHE) or spay is the complete removal of the female reproductive tract. The ovaries, oviducts, uterine horns, and the uterus are removed. Not only does this prevent the animal from becoming pregnant, it also eliminates the twice yearly heat cycles. The surgery removes the source of production of such hormones as *estrogen* and *progesterone.* These hormones are responsible for stimulating and controlling heat cycles and play a major role during pregnancy but they have other effects on the body and some are potentially fatal.

**Disadvantages of not spaying your dog**

**Estrus:** During the heat cycle there are behavior and hygienic problems that develop. Females in heat will actively search out male dogs and may attempt to escape from the house or yard, putting them in danger of traffic, fights with other animals etc. Often there is a sudden influx of male dogs around the home and yard. These dogs leave numerous droppings and spray plants and trees with urine in an attempt to mark their new territory. Owners also need to contend with the vaginal bleeding that typically lasts 4-13 days.

**Mammary Cancer:** Estrogen is the primary cause of canine mammary cancer, the most common malignant tumor in dogs. Animals that are spayed prior to one year of age rarely develop this malignancy. Spaying a dog before her first heat is the best way to significantly reduce the chance your dog will develop mammary cancer. The risk of malignant mammary tumors in dogs spayed prior to their first heat is 0.05%. It is 8% for dogs spayed after one heat, and 26% in dogs spayed after their second heat.

**Tumors of the reproductive tract:** Tumors can occur in the uterus and ovaries. An OHE would, of course, eliminate any possibilities of these occurring.

**Uterine Infections:** Many female dogs have problems with a severe uterine infection called pyometra following their heat cycle. With this disorder the uterus fills with pus, and if undetected this condition is always fatal. Treatment is surgical removal of the infected organ - which is difficult and risky for the animal. Sometimes the organ will rupture, causing severe bleeding and the contamination of the entire abdomen with infected liquid. The strain on the kidneys or heart in some of these cases may be fatal or cause life long problems even after the successful removal of the infected uterus.

**False pregnancy:** Some female dogs fail to routinely go out of their heat cycle correctly causing a condition called false pregnancy. In these cases, even though she may have not mated with a male dog, her body believes it is pregnant due to some incorrect hormonal stimulations that it is receiving. The dog may just have some abdominal swelling and/or engorgement of the mammary glands, or exhibit behavioral changes. The females don't usually experience any long term effects as the behavior disappears when the circulating hormones return to their appropriate levels - but in some cases we may see mastitis (infected mammary glands), metritis (infection of the uterus) or sometimes these cases develop into full blown pyometra.

An ovariohysterectomy eliminates many medical and behavior problems. In fact, in many dogs, an OHE probably adds years to their lives, at least provides them with a more comfortable, less stressful life. The OHE does its part in pet overpopulation, but you, as the owner of the individual dog, should also view it as a way to increase the length and quality of your pets life with you.