

## **SUBMISSION ON THE STOP THE PUPPY FARMING CONSULTATION PAPER**

I am a veterinarian with 28 years' experience in cat and dog medicine. I have postgraduate qualifications in small animal reproduction. I vehemently oppose the introduction of mandatory desexing. I am greatly disturbed by the blatant factual inaccuracies and misinformation in the consultation paper. I understand the thrust of the legislation but it has not been shown to be effective anywhere else in the world.

The consultation paper states;

"Under the Dog Act, sterilised currently means 'made permanently infertile by a surgical procedure' (sterilisation is the same thing as de-sexing).

In Australia, this usually means by the removal of the ovaries and uterus in female dogs (spaying), and the testes in male dogs (castration). The primary reasons for de-sexing dogs are population control and other societal and owner benefits including absence or reduction of behaviours associated with sex hormones (such as marking, roaming, fighting in males, and signs of oestrus or "heat" in females)."

The first problem with this is the definition of sterilisation not just the interpretation. The term "de-sexing" should be avoided. Sex is determined by the genetic chromosomal make up and it is not possible by current means to alter that. The aim of this proposed legislation is to render dogs incapable of independent reproduction but this is not specifically stated.

The American Veterinary Medical Association (AVMA) supports five canine surgical sterilisation procedures: ovariohysterectomy, ovariectomy, and hysterectomy (for females) and orchiectomy and vasectomy (for males). The reason for providing this range of options is because of the significant deleterious effect of gonadectomy in the dog that have been increasingly recognised since the 1970s. There has been a historical trend for Australia to follow what has been performed in the United States. When the mass sterilisation programs were originally initiated none of this data was quantified but with access to electronic record keeping and the transfer and availability of data, we now understand that there are significant problems that develop in many dogs after gonadectomy.

The consultation paper states that one of the benefits of de-sexing dogs is increased longevity. Unfortunately, this is factually incorrect. There are three good population studies with very large numbers of dogs that show longevity correlates with the presence of ovaries in the bitch. In particular, in the Rottweiler, there is a 30% greater likelihood of exceptional longevity (greater than 13 years), in those bitches with the longest lifetime ovarian exposure. This same correlation has also been documented in the Bernese Mountain Dog and the Great Dane. The authors of the Rottweiler study made the clear observation that previous studies had never adequately delineated the time of ovariohysterectomy in bitches in relation to longevity. Many bitches that underwent ovariohysterectomy very late in life were classified as sterilised, lived longer and contributed to the erroneous assumption that spayed bitches lived longer when in fact their longevity was due to their prolonged lifetime ovarian exposure.

The second inaccuracy in the consultation paper relates to the reduced risk of cancer and other diseases affecting the reproductive organs. There is published information from the 1940s onwards demonstrating a significant increase risk of prostatic cancer in the dog following castration. Unlike in

men, the development of cancers in the prostates of dogs is not typically androgen-dependent, they do not arise from within the prostatic tissue but from within the duct tissue that drains the prostatic fluid into the urethra and they do not respond to hormonal manipulation.

Every entire male dog will develop some degree of benign prostate enlargement through life and for those that are symptomatic there are very effective, simple medical treatments available without the need for surgical intervention so there is no rational medical justification for castration with respect to prostatic disease in the male dog.

Malignant testicular cancers are a very rare cause of ill health to older male dogs but are one of the few rational justifications for castration.

A systematic review performed examining the effect of neutering on the risk of mammary tumours in dogs and published in the Journal of Small Animal Practice in 2012 concluded that "due to the limited evidence available and the risk of bias in the published results the evidence that neutering reduces the risk of mammary neoplasia, and the evidence that age at neutering has an effect, are judged to be weak and not a sound basis for firm recommendations".

This is important because there is this erroneous belief that juvenile sterilising prevents mammary cancer but the published literature documents that mammary cancers still develop in dogs that have been sterilised.

The inclusion of the consultation paper statement;

"prevention of pregnancies in female dogs, which can cause exhaustion and other medical issues' as a rational justification for mandatory de-sexing is very ambiguous.

The unfortunate reality in the last 18 years in my experience dealing with animal welfare organisations with acquired bitches presented for pregnancy assessment by abdominal ultrasound, in every case, the animal welfare organisations have declined medical or surgical termination of those pregnant bitches despite the fact they can be safely and effectively performed and would be of better benefit to the individual welfare of the bitch. I find this ironic and extremely hypocritical that the very organisations that have been advocating for this legislation when presented with options to avoid unwanted litters and puppies have never chosen the simplest, safest and most effective solutions available.

'With respect to the behavioural aspects of sterilisation the Australian Veterinary Association's most recently published study on dog fights and dog attacks showed that gender status was a very minor contributor, if at all and that dog bites and dog attacks are a very complex and multifactorial issue.

In a recently published paper, comparing behavioural outcomes in male dogs that were castrated young the authors concluded that there was a reduction in testosterone dependent behaviour such as urine marking but there was more than double the rates of anxiety and fear aggression in those dogs castrated prior to maturity. Unfortunately, for those dogs that develop the anxiety and fear aggression it is very difficult and very time-consuming and sometimes not possible to ameliorate those behaviours. The conclusion from these studies is that the behavioural benefits of sterilising are significantly overstated and in many cases erroneous.

The major problems after sterilisation are significant, very common and we now have explanations why most of them occur.

There are significant increases in the cancer and endocrinopathy rates in dogs after sterilisation particularly bone cancers, spleen cancers, lymphoma, mast cell tumours and bladder cancers.

Removing the ovaries or testicles of dogs removes their ability to produce hormones that negatively feedback onto the pituitary gland. As a result, the pituitary gland continues to secrete high levels of luteinising hormone (LH). There is documented evidence that LH receptors exist in most organs in the body and not just in the gonads. The persistent secretion and response by target organs to LH has been demonstrated to significantly increase the rate of abnormal cell growth and development of malignancies. There is current research being performed at Oregon State University by Professor Michelle Kutzler.

Similar research has demonstrated changes that occur in the bladder leading to incontinence, in the knee and hip joints leading to anterior cruciate ligament ruptures (juvenile sterilisation is the single biggest preventable cause of this), hip dysplasia, arthritis, in the adrenal gland resulting in Cushing's disease and in the thyroid gland resulting in hypothyroidism all of which have a much greater prevalence in dogs that have been desexed and in many cases there is a correlation with the younger age of sterilisation resulting in a sooner onset of these conditions.

The final omission in the proposed legislation is that there is no consideration for non-surgical contraception in the dog. We have very safe, effective methods of nonsurgical contraception in the dog. These are currently being used extensively for those dogs that are poor surgical and anaesthetic candidates and those dogs where surgical sterilisation is unjustified or unwarranted.

The decision to sterilise any dog should be based on a discussion between the dog's owner or carer and their veterinarian with respect to breed, age, health issues and expected outcomes rather than being mandated.

Steven Metcalfe BSc BVMS(Hons) MSc MANZCVS

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