

The following points were taken from an article by:

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The full article and the article's fifteen references can be found at www.caninesports.com

Dr. Zink writes that veterinarians and owners with dogs should revisit the standard protocol in which all dogs that are not intended for breeding are spayed and neutered at or before 6 months of age.

- 1) Studies found that dogs that were spayed early had delayed closure of growth plates, and that they were significantly taller than those spayed after a year or more of age. Sex hormones promote the closure of the growth plates, so the bones of dogs or bitches neutered or spayed before puberty continue to grow. Dogs that have been spayed before puberty can be identified often by their longer legs, lighter bone structure, narrow chests and narrow skulls.
- 2) It is postulated that because of uneven bone growth, neutered dogs have a higher incidence of CCL (Cranial Cruciate Ligaments) Rupture and higher incidence of hip dysplasia.
- 3) Damage to cranial cruciate ligaments is more prevalent in female dogs spayed early than the slightly increased risk of mammary cancer in unaltered females.
- 4) Studies showed a FIVE times greater risk of hemangiosarcoma in spayed bitches than intact ones and a 2.4 greater risk in neutered males. Further, dogs neutered before one year old had a much greater risk of developing bone cancer, which is much more lifethreatening than mammary cancer. This affects both male and female dogs.
- 5) There appears to be no benefit to neutering males to prevent prostate cancer.
- 6) Early neutering in one study showed more sexual behaviors in males and females; the rate of occurrence of hip dysplasia was higher, and noise avoidance was also prevalent.
- 7) A recent report of the American Kennel Club Canine Health Foundation reported significantly more behavioral problems in spayed and neutered bitches and dogs. The most commonly observed behavioral problem in spayed females was fearful behavior and the most common problem in males was aggression.
- 8) Intact males in one study had less cognitive impairment when they grew old
- 9) Other negative side effects of early neutering were; female urinary incontinence, urethral sphincter incontinence in males, hypothyroidism in some breeds, adverse reactions to vaccines and some animals showed more risk of catching infectious diseases.