

Canine Reproductive System Management

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Recent research about the overall effects of traditional sterilization surgeries on dogs has produced new information calling our standard practices into question. The long-term outcome of these surgeries is no longer as uniformly beneficial as once believed and therefore the relative risks and benefits of sterilization surgery must be considered individually for each dog. The timing, particular procedure and what is best for your dog and family, should be discussed in depth with your veterinarian. The decision whether to sterilize (neuter) your dog, and the method to be used, should be made with that animal's welfare the primary consideration. This informational summary is intended to clarify your options.

What are my options for managing my dog's reproductive system?

1. All reproductive organs retained:

a. Female: (Reproductively intact)

pro: developmental benefits of hormone influence, longevity, some decreased neoplastic risks, no surgery
con: some increased neoplastic risks, heat cycles, pyometra & pregnancy risks, social pressure, municipal fees.

b. Male: (Reproductively intact)

pro: developmental benefits of hormone influence, some decreased neoplastic risks, no surgery.
con: risks of prostate & testicular disease, behavioral considerations, social pressure, municipal fees.

2. Sterilization with retention of gonads and their hormonal influences:

a. Female: hysterectomy (ovaries retained, uterus & cervix removed)

pro: developmental benefits of hormone influence, longevity, some decreased neoplasia, no pregnancy, no pyometra.
con: some increased neoplasia, heat cycles, behavioral considerations.

b. Male: vasectomy (testes retained, spermatic cord interrupted)

pro: developmental benefits of hormone influence, some decreased neoplastic risks.
con: risks of prostate & testicular disease, behavioral considerations, social pressure.

3. Sterilize with removal of gonads and their hormonal influences:

a. Female: ovariectomy (ovaries & uterus removed)

pro: some decreased neoplastic risks, no heats, pregnancy or pyometra.
con: decreased longevity, some increased neoplastic risks, increased orthopedic risk, increased obesity risk.

b. Male: castration (testes removed)

pro: reduced risk of testicular and most prostatic diseases.
con: increased neoplastic risk of certain cancers including prostatic, increased orthopedic risk, Increased obesity risk.

Learn more at the following websites:

Reproductive surgery options: <https://www.parsemus.org/>

Longevity and sterilization: <http://www.gpmcf.org/>

Effects of Gonadectomy on Relative Risk

(Adapted from "Clinician's Brief", page 20, August, 2017)

| Disease or Condition | Effect of Traditional Spay On Relative Risk | Effect of Castration On Relative Risk |
|--|---|--|
| Cystitis (bladder inflammation) | Mild Increase | Not applicable |
| Cruciate ligament rupture (knee injury) | Moderate Increase | Moderate Increase |
| Hemangiosarcoma (spleen cancer) | Mild Increase | Mild Increase |
| Hip dysplasia | Mild Increase | Mild Increase |
| Lymphoma (lymph node cancer) | Mild Increase | Mild Increase |
| Mammary tumor (breast cancer) | Marked Decrease | Not applicable |
| Mast cell tumor (specific cell type cancer) | Mild Increase | Not applicable |
| Obesity | Moderate Increase | Mild Increase |
| Osteosarcoma (bone cancer) | Mild Increase | Mild Increase |
| Perianal gland tumor (anal area cancer) | Not applicable | Marked Decrease |
| Perineal hernia (anal area hernia) | Not applicable | Decrease |
| Prostatic carcinoma (prostate cancer) | Not applicable | Mild Increase |
| Prostatic hyperplasia (benign enlargement) | Not applicable | Marked Decrease |
| Surgical mal-result | Infrequent | Infrequent |
| Testicular tumor (testicle cancer) | Not applicable | Prevents |
| Transitional cell carcinoma (bladder cancer) | Mild Increase | Mild Increase |
| Urinary incontinence (leaking urine) | Moderate Increase | Not applicable |
| Uterine/ovarian tumor (reproductive cancer) | Prevents | Not applicable |
| | | |
| OVERALL LONGEVITY EFFECT | AMBIGUOUS/CONTROVERSIAL/UNCERTAIN | AMBIGUOUS/CONTROVERSIAL/UNCERTAIN |