To Spay/Neuter or Not! An Excellent Question

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...but first

- A) a plug for next year’s speaker
  - DR. EVA FURROW

- B) Health Registry
  - Why do we lose our LBD’s?
Controversial Subject with Strong Opinions

- How many have spayed/neutered vs intact AWS’s?
- What influenced you to have them spayed or neutered?
- History of spaying and neutering
  - Prior to the 1930’s
  - The 1970’s and beyond
Controversial Subject with Strong Opinions

• Factors that need to be considered
  • Lifestyle
  • Purpose - hunting vs companion
  • Risks/Benefits
What is a spay/ovariohysterectomy and neutering?

• OVH: Surgical removal of both ovaries and the uterus

• Neutering: Surgical removal of both testicles
Risks

• Considered low risk procedure in an otherwise healthy patient

• Risk increases if there are other ongoing illnesses

• Best if elective procedure
Potential Benefits of Spaying and Neutering

• Population Control for Unwanted Puppies (and Kittens)

• Behavior

• Health Benefits

• THERE ARE CONS WITH SPAYING AND NEUTERING - WE WILL DISCUSS
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Population Control

• Great lengths to mate when there is a willing pair!

• Millions of unwanted dogs and cats are relinquished each year
  • Many are euthanized

• Strays

• As dogs do not go through menopause, they can generate offspring lifelong
Behavioral Problems

• Inappropriate/unacceptable behavior = common cause for families to give up pets

• Spay/Neuter has the potential to be helpful in reducing:
  • Roaming
  • Hormonal Aggression (fighting with other males or other females)
  • Urine Marking

• Aggression towards people?
  • Intact Males and Spayed Females = more likely

• Fear and Anxiety?
  • We don’t have enough data, yet!
Potential Decreased Risk for Health Problems

- Females
  - Mammary Gland Cancer
  - Pyometra

- Males
  - Testicular Cancer
  - Prostate

- Behavior that might lead to health probs
Mammary Gland Cancer

- Biggest factors in developing mammary gland cancer
  - Hormonal influence
  - Age
  - Breed
  - Other factors: obesity, diet, and body weight

- Incidence in US = 4%
  - In other countries where spaying less freq - rate is much higher
  - Intact females: 3-7 times more likely to develop

- 50% are benign (adenoma)
- 50% are malignant (carcinoma)
Mammary Gland Cancer - Hormonal Influence

• Spaying
  
  • BEFORE 1st HEAT: <1%
  
  • BEFORE THE 2nd HEAT: 8%
  
  • AFTER THE 2nd HEAT: 26%
  
  • Benefit after 3rd heat is uncertain (but other health benefits)
Mammary Gland Cancer
Mammary Gland Cancer

• Intact females OR those spayed after 2-3 heat cycles
  • Feel all mammary tissue once a month
    • Have any lumps tested and potentially removed
  • Small Tumors are EASIER TO TREAT
Pyometra (CEH/pyometra complex)

• Pyometra = infection of the uterus
• Incidence: up to 20% by 10yrs

• Cause = hormonal changes affect the physiology of the uterus
  • 70% are between 5 and 10yrs of age
  • 10% are 2 yrs old or younger

  • Normal resident bacteria can ascend and reside within the uterus
  • Ultimately this can lead to infection
  • Clinical signs (feeling poorly) generally develop 3-10 weeks after being in heat

• The bacterial infection can be **life threatening**

• Clinical signs: vaginal discharge, excessive thirst and urination, lethargy, poor appetite
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Spaying = removal of the ovaries, the uterine horns and the body of the uterus
Pyometra (CEH/pyometra complex)

• Diagnosis: history, lab work, and imaging (x-rays and/or ultrasound)

• Therapy
  • Medical therapy - can be effective if pet is stable & there is drainage (open pyometra)
  • Surgery (spay) - mortality rate = 10%

• Prevention
  • Spay/eliminate chronic hormonal stimulation to the uterus
Testicular Cancer

- Up to 27% of all intact males
- Most tumors do not spread (benign), often incidental
- Painful and in rare cases, cause systemic problems
- Cryptorchid (undescended testicle - higher risk of testicular cancer)

- Neutering prevents
- Neutering cures most intact males that develop this form of cancer
Prostate Disorders

• Testosterone can influence the prostate
  • Prostate Hyperplasia
  • Prostate Infections

• Neutering does not decrease the incidence of prostate cancer
Cons of Spaying and Neutering

• For our breed
  • The breeding pool is so very small
• Orthopedic disease - cruciate tears in large breeds
• Hormonal incontinence in females
• Activity/Performance?
• Weight gain?
• Cancer risk for tumors other than of the repro system may be lower, but data is conflicting
Cons of Spaying and Neutering

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Cons of Spaying and Neutering

- Orthopedic disease - cruciate tears/joint disease in large breeds
Cons of Spaying and Neutering

- Hormonal incontinence in females
  - <3 months vs 4-6 months vs after 1st heat
- Medications are effective in >80%
Cons of Spaying and Neutering

• Activity/Performance?

• Weight gain?
Cons of Spaying and Neutering

• Non-reproductive Cancer Risk?
  • Lymphoma, Hemangiosarcoma, Mast Cell Cancer, others

• Many factors influence the development of cancer
  • Genetics/Breed
  • Environment
  • Age
  • Spay/Neuter status

Data is conflicting regarding specific tumor types and breeds. Until we better define this...we just can’t say.
When to Spay/Neuter?

• Common practice:
  • Adoption Groups: BEFORE adoption
  • Non-working pets: before 6 months/first heat cycle

• Depends on your goals and the breed size

• As the data is not clear cut for non-mammary cancer
  • SMALL BREEDS: before the first heat
  • LARGE BREEDS: after skeletal system mature (>12-18 months)
Conflicting information and a controversial topic

- Current recommendations are not unanimous for all households

- Knowing the pros and cons and determining what is best for you is the “right” answer
Lola

- No urge to breed and no need for random puppies
- Mammary Cancer vs other Cancers
- In looking at her lifestyle...she is ACTIVE and ENERGETIC
- If I had a large breed dog?
  - Female vs Male
What about ovariectomy (removing only ovaries)

• Performed via laproscopy
• Pros: smaller incisions and less tissue removed (considered less invasive)
• Surgery time: similar after learning curve

• Post-procedure pain: similar?
• Complications: similar?

• The long term risk of diseases of the uterus (cancer or pyometra) appears to be low

• This may become common practice/widely available in the time ahead
Strays
Thank you!

• QUESTIONS?