

To Spay/Neuter or Not! An Excellent Question

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AWS 2017



...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

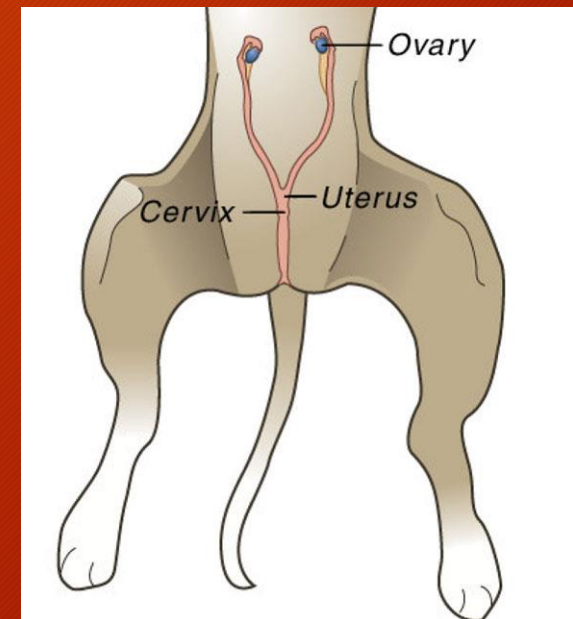
Controversial Subject with Strong Opinions

- 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



<https://pets.stackexchange.com/questions/6780/could-roses-be-used-to-fence-a-dog-in>



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

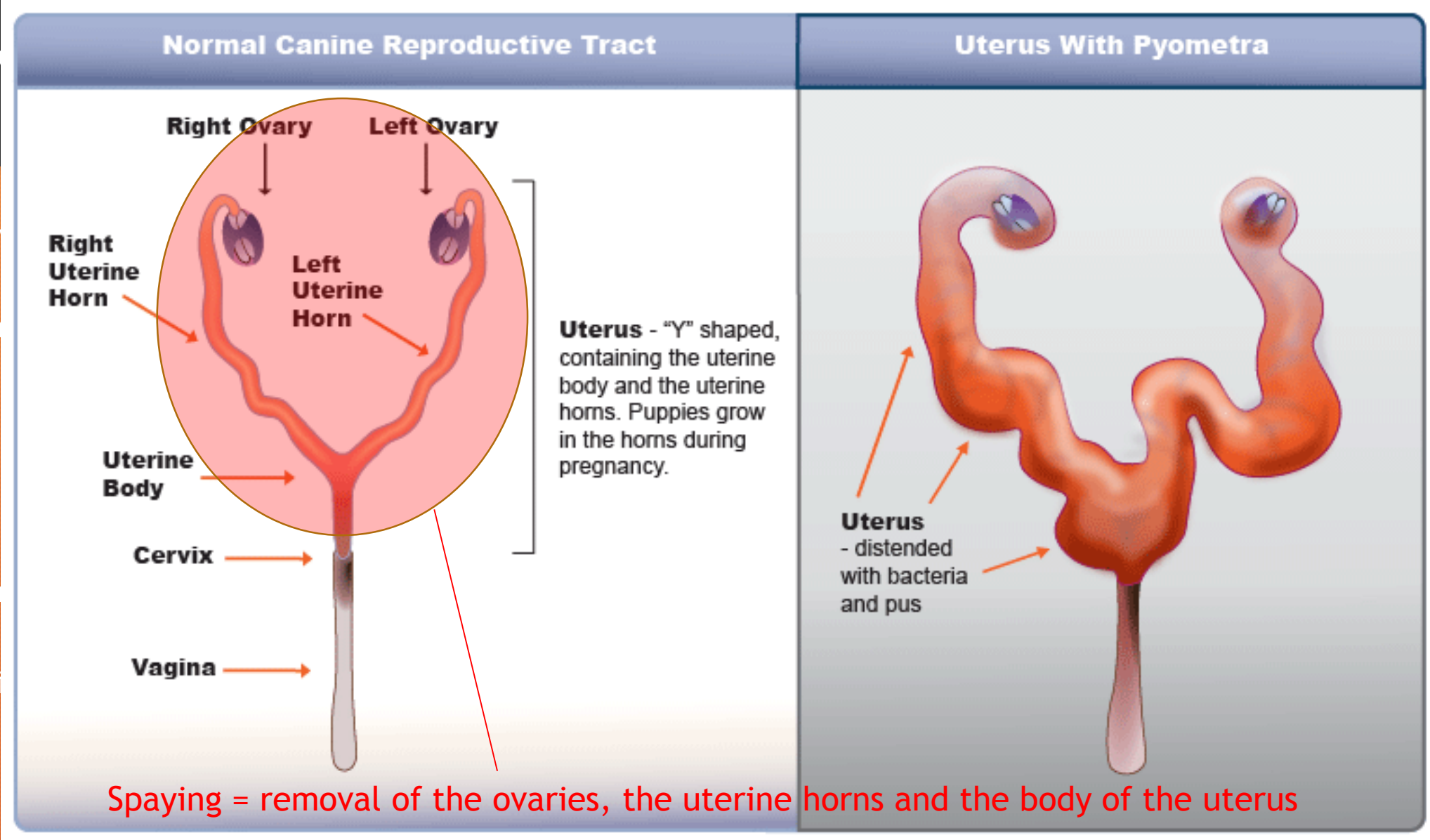
- Intact females OR those spayed after 2-3 heat cycles
 - Feel all mammary tissue once a month
 - Have any lumps tested and potentially removed
 - Small Tumors are EASIER TO TREAT

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

Py

- Py
- Ca
- Th
- Ct



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

- For our breed
 - The breeding pool is so very small

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?

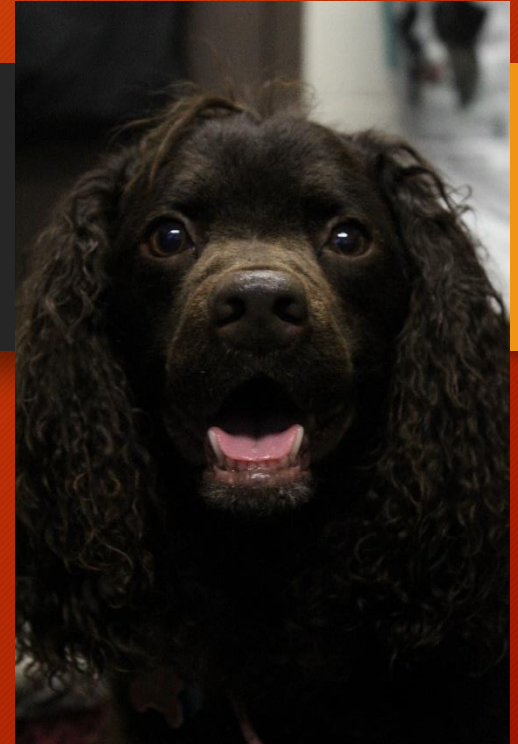
- Common practice:
 - Adoption Groups: BEFORE adoption
 - Non-working pets: before 6 months/first heat cycle
- Depends on your goals and the breed size
- As the data is not clear cut for non-mammary cancer
 - SMALL BREEDS: before the first heat
 - LARGE BREEDS: after skeletal system mature (>12-18 months)

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)

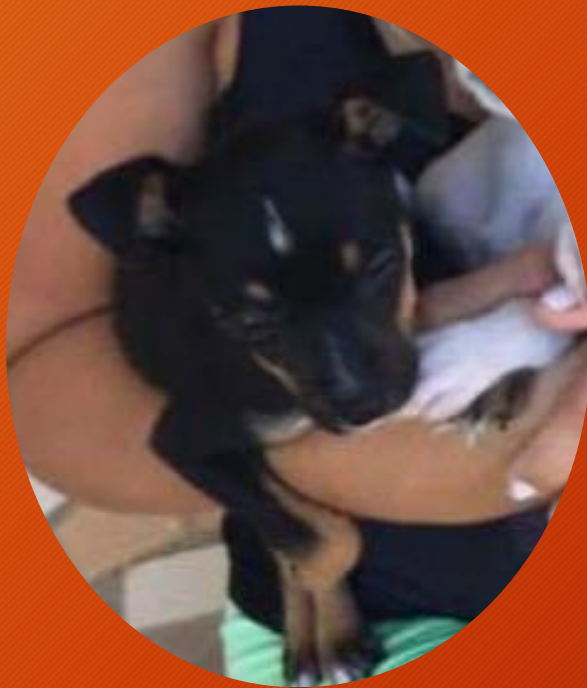
- Performed via laproscopy
- Pros: smaller incisions and less tissue removed (considered less invasive)
- Surgery time: similar after learning curve

- 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?