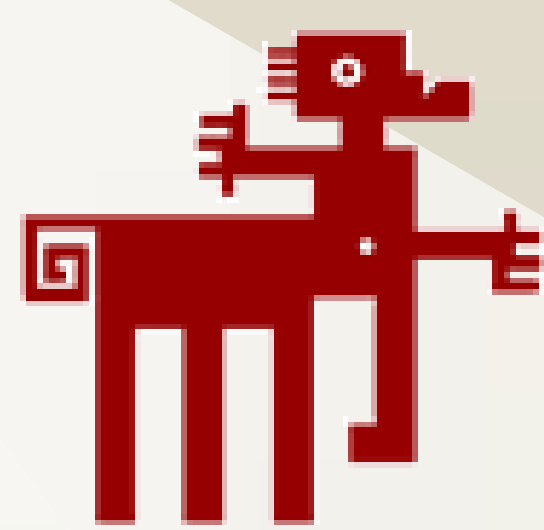


# Pros and cons of ovariectomy in bitches



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## INTRODUCTION

Ovariectomy (OHE) is one of the most common surgeries in companion animal practice<sup>1</sup>. Veterinarians can play an important role in addressing problems related to small animal neutering and overpopulation, and in counselling pet owners to take appropriate action<sup>2</sup>. The balance between health risks and benefits of spay varies among dogs<sup>3</sup>. Therefore, OHE might not be the most recommended approach in every situation. Factors that should be taken into account include the knowledge and commitment of the owner, the breed of the bitch, its age at the OHE and its intended use<sup>4</sup>.

## OBJECTIVE

The objective of this study is to clarify all points which ought to be considered in order to make a good recommendation, individualized for each patient.

## CONCLUSION

It is not possible to draw an universal conclusion consisting in a valid recommendation for every single bitch.  
From a rational point of view, the OHE should not be considered as a routinely recommended procedure.

## PROS OF OHE

### Pregnancies

### Oestrus

### Pseudopregnancy

### Pyometra

24 % incidence in intact females

### Tumours of the reproductive system

0,4 % of incidence

### Acromegaly

P<sub>4</sub> stimulates GH

### Diabetes mellitus

P<sub>4</sub> diabetogenic

### Mammary tumours

OHE < 2,5 years

➤ Before 1<sup>st</sup> heat: 0,5 %

➤ Before 2<sup>nd</sup> heat: 8 %

➤ After 2<sup>nd</sup> heat: 26 %

P<sub>4</sub> and E receptors.

Synergy between ovarian hormones - GH - PRL which promotes the development of mammary tumours

### Epilepsy

proconvulsive effects of E

### Lifespan

Infections

Cancer

Eliminates

Reduces the risk

### Complications from spay surgery

- Hemorrhage
- Wound healing complications
- Anesthesia / analgesia
- Ureteral injury
- Bowel obstruction

## CONS OF OHE

### Problems associated with immunity

E proinflammatory and P<sub>4</sub> immunosuppressive

### Hemangiosarcoma At a late OHE

### Mast cell cancer

### Lymphoma or lymphosarcoma At an early OHE

Osteosarcoma ↓ age at OHE = ↑ risk

Transitional cell carcinoma ↑ risk 2-4 times

### Obesity

### Orthopaedic problems

- Hip dysplasia
- Injury or rupture of LCA or LCC
- Patellar luxation
- Osteoporosis
- Net loss of bone mass in the spine

### Behavioural disorders

Offensive reactivity

### Ovarian Remnant Syndrome (ORS)

### Stump pyometra

Urethral sphincter mechanism incompetence (USMI) 20 % vs 0,3 %

### Perivulvar dermatitis and vaginitis

Paediatric OHE

### Urinary Tract Infections (UTIs)

Increases the risk

Hypothyroidism ↑ x3

### Geriatric Cognitive Impairment

Adverse vaccines reactions

## REFERENCES

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<sup>2</sup>Downes, M. J., Devitt, C., Bowen, M. T., & More, S. J. (2015). Neutering of cats and dogs in Ireland; pet owner self-reported perceptions of enabling and disabling factors in the decision to neuter. *PeerJ PrePrints*, 2, 731–751.  
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