

## Gastric dilatation-volvulus

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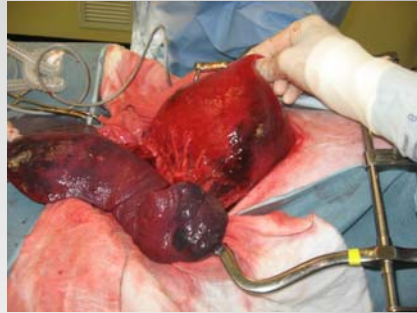
## Introduction and outline

- What is GDV?
- What are the risk factors?
- Preventative measures
- Gastropexy



## GDV

- Malpositioning of stomach
- Distention with gas (food) - "bloat"
- Shock
- Gastric/splenic necrosis
- Multi-organ failure
  - Clotting
  - Cardiac arrhythmias



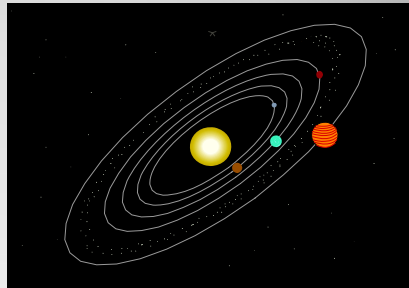
## GDV

- Death
  - ~20% (10-33) mortality with intervention
  - Time to presentation
  - Responsiveness (x4)



## Cause versus risk

- Cause unknown
- Risk
  - Conditions associated with occurrence
  - Multiple factors



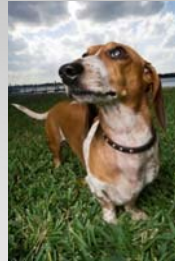
## Risk factors for GDV

- Predisposing factors vs precipitating factors
- Predisposing factors
  - Large / giant breeds
    - Giant 3x



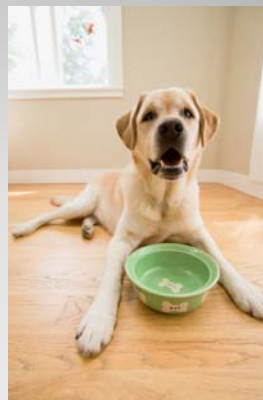
## Risk factors for GDV – at risk dogs

- Predisposing factors
  - First degree relative
    - 0.60x
  - Increased age
    - 0.20x per year
      - ~5 years ; peak 10-12 years
  - Thoracic conformation
    - Leaner
    - Reduced thoracic width—increased abdominal width(decreased risk)



## Risk factors for GDV – at risk dogs

- Precipitating factor
  - Feeding
    - Elevated feeding
      - 2x
    - Speed of eating
      - 0.4x
    - Large volume
    - Premoistened
    - Water restriction



## Risk factors for GDV - unproven

- Predisposing factors
  - Temperament
  - Seasonal
  - Splenectomy
- Precipitating factors
  - Food type
  - Stressful event
  - Exercise



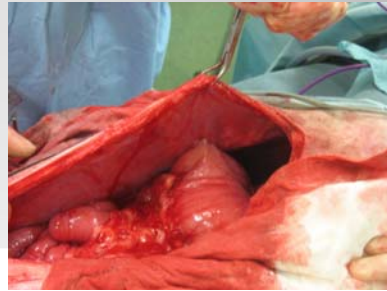
## Preventative measures

- Modifying the risk
  - Gastropexy
  - Breeding
  - Feeding practice



## Gastropexy

- Permanent fixation of stomach to body wall
- Performed at time of GDV surgery
  - <4% recurrence rate (technique)
  - >50% recurrence if not performed
- Prophylactic ??



## Prophylactic gastropexy

- Only “guaranteed” preventative measure
- Reduced risk of GDV but not GD
- Open procedure
  - Other abdominal surgery
    - OHE
  - Multiple techniques
    - Non-penetrating incision



## Prophylactic gastropexy

- Laparoscopic-assisted procedure
  - Minimally invasive
  - One portal
  - One right lateral incision



## Prophylactic gastropexy

- Laparoscopic-assisted procedure
  - Stomach located and moved to body wall
  - Incision through body wall (4-5cm)
  - Stomach incised and sutured
  - Portal closed



## Prophylactic gastropexy

- Laparoscopic-assisted
  - Low morbidity
    - Short duration
    - Short, unrestricted recovery
    - Day procedure
  - Minimal incision complications
  - Equipment
  - Expertise
  - MUVH ~\$1800
  - Can combine with laparoscopic OHE
  - Call surgery @ 9360 6275; email [surgery@murdoch.edu.au](mailto:surgery@murdoch.edu.au)



## Breeding

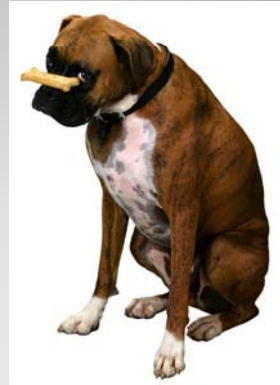
- First-degree relative
  - Reduce incidence by 60%
- Medical history
- Age of onset





## Feeding practices

- Do not elevate food bowl
- Reduced volume
- Reduced speed?
  
- No benefit to restricting water
- Pre-moistening contraindicated
- No benefit to restricting exercise



## Summary

- Overwhelming risk factor is breed
  - First-degree relative
  
- Only guaranteed preventative measure is gastropexy
  - Technique important
  
- Minimally invasive technique – low morbidity



Questions

