

## Vascular ring anomalies

### Indications:

Vessels that have not developed appropriately and constrict other structures in the chest.

### Preoperative workup and other diagnostics:

Most of these cases are referred either emergently, urgently, or on a scheduled basis. The work up would include:

- General physical examination
- Preoperative laboratory work
- Typically imaging is used to further define the type and location of the vascular ring anomaly:
  - thoracic radiographs
  - swallowing studies
  - CT (with contrast)
  - scope

### Procedures:

The chest cavity will be entered. A tube (thoracostomy tube) will be placed during surgery to remove air from the chest (and potentially fluid) – and will be removed after surgery once it is safe to do so.

### Complications:

- Anesthesia: as with any surgical procedure, there are always risks associated with general anesthesia, this risk is increased for thoracic surgery as well as for pets with heart conditions.
- Surgical site complications: this can range from a local dehiscence, to a fluid pocket (seroma) that will resolve on its own, or can be a local abscess that might need to be treated surgically.
- Bleeding during surgery, or after surgery
- Air leakage (pneumothorax) after surgery.

Your surgeon will discuss these complications in more detail during your pet's visit.

### In hospital care:

- Hospitalization and close monitoring in ICU is needed during recovery until the thoracostomy tube is removed. Intravenous medication and intravenous fluids are typically needed postoperatively to recover from surgery. Depending on the extent of surgery, duration of the disease/clinical signs, and other co-morbidities, this stay can be only the first night after surgery, or can be several days, until your pet is healthy enough to continue care at home.
- In some cases a feeding tube might be placed directly in the stomach. These might be left in place for continued at home feeding, and if so, specific care and feeding instructions will be provided for you.

### At home care:

- Exercise restriction: leash walks/exercise restriction for the first 10-14 days after surgery to allow all the incisions to heal.
- Incision care: this includes keeping the incision dry and clean, as well as wearing an E-collar as long as the incision is still healing (first 10-14 days postoperatively).
- Upright feeding
- Feeding tube care: see separate information sheet.

**Prognosis:**

Depends on type of vascular ring, the duration of clinical signs, as well as the ability of the esophagus to recover normal function.