

## Pericardectomy

### What is pericardectomy?

The pericardium is the sac surrounding the heart, and pericardectomy is removal of a part ('pericardial window') or the majority ('subtotal pericardectomy') of it.

### Indications:

Diseases that cause fluid to build up in the pericardial sac, or diseases that stiffen/ticken the tissue of the pericardial sac itself. Both lead to inability of the heart to fully fill and function.

### Preoperative workup and other diagnostics:

Most of these cases are referred either emergently, urgently, or on a scheduled basis, after a work up other services to further investigate & delineate the cause for the heart disease and the extent of the disease, but can include:

- General physical examination prior to anesthesia
- Preoperative laboratory work & imaging:
  - Mostly done prior to referral to the soft tissue surgery service
  - Cardiac workup: including echo, and potentially pericardiocentesis (removal of fluid from the pericardial sac).
  - Other Imaging can include CT, radiographs, ultrasonography.
- Fluid samples: culture, cytology (obtained prior to, or during surgery).
- Histopathology of the pericardial sac (obtained during surgery). Pieces of the pericardial tissue can be submitted for culture as well.

### Procedures:

Regardless of the type of procedure, 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.

Pericardial window: This can be performed open through a mini approach in between the ribs. This is sometimes chosen for animals that are not stable enough for a longer procedure. Opening the pericardium allows the fluid to leak out, and is aimed at preventing future fluid build up. Parts of the pericardium will be removed, but the majority will remain.

Subtotal pericardectomy: In this procedure, the majority of the pericardium is removed. To get good access to both the left and right side, this is typically performed via a sternotomy, during which the sternum is opened.

Thoracoscopic pericardectomy: In this procedure a camera and instruments are introduced through small incisions in the chest wall. Not all diseases, or animals are good candidates for a minimally invasive option. If there is not enough room to safely use instruments using this approach, the procedure might be changed ('converted') to an open approach.

**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.

**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).

**Prognosis:**

Depends on the reason for the surgery, and the extent of surgery.