

Pericardial Effusion

What is pericardial effusion?

- Pericardial effusion is the abnormal accumulation of fluid within the sac surrounding the heart (pericardium).
- There is normally only a very small amount of fluid in that sac to protect the heart and provide lubrication to prevent friction between the moving heart and surrounding organs.
- Pericardial effusion usually causes fluid accumulation in the belly and causes symptoms of weakness, breathing difficulties, and sometimes collapse.

How is it diagnosed?

- An echocardiogram (ultrasound or sonogram of the heart) by a veterinary cardiologist is the gold standard for definitive diagnosis.
- Physical examination, chest x-rays, electrocardiograms and overall history can also assist in making the diagnosis of pericardial effusion

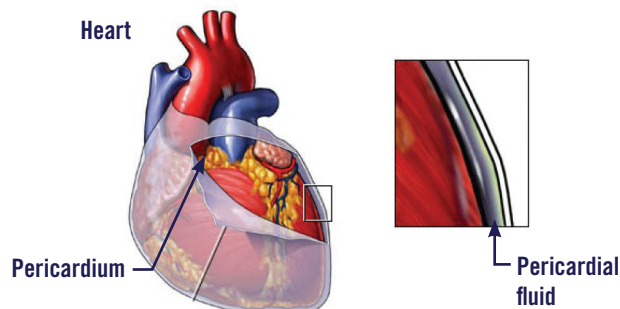


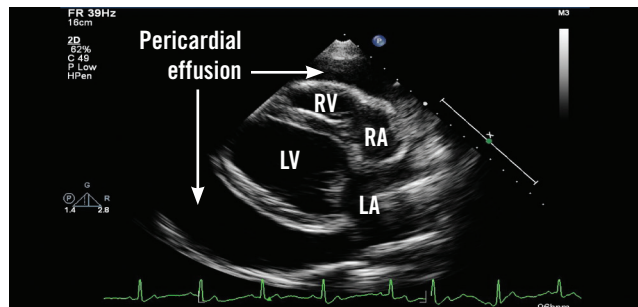
Diagram depicting the relationship between the pericardium and heart.

What Causes Pericardial Effusion?

- The most common condition is bleeding from a tumor - some are aggressive and some are not.
- If a tumor is seen, consultation with a veterinary oncologist is often recommended.
- Infections and heart failure can also cause fluid to abnormally accumulate in the heart sac.
- Sometimes there is no known cause (idiopathic) - up to two thirds of patients do not have an identifiable cause on initial examination.

What is the prognosis?

- The outcome is widely variable and depends on the cause of the problem.
- We are actively researching the utility of cardiac biomarkers to help discern the underlying cause of pericardial effusion.



Echocardiogram image of heart with pericardial fluid surrounding the heart with all four chambers shown. (RV- right ventricle, RA- right atrium, LV- left ventricle, LA- left atrium)

How is it treated?

- Removal of the fluid within the pericardial sac (pericardial tap) may be required.
 - This is done by inserting a catheter through the chest wall via ultrasound guidance and withdrawing the abnormal fluid present within the sac around the heart.
- Surgical removal of the pericardium may be recommended in cases of recurrent pericardial effusion. This procedure results in a significant improvement in quality of life and long-term survival in these types of patients.

