

*(Treatment Options cont.)*

**Does SAGE offer heart surgery?**

SAGE cardiologists are trained in minimally invasive catheter-based procedures. Using fluoroscopy (moving X-ray), catheters are guided to the heart through small incisions in the neck and/or leg that provide access to blood vessels. These minimally invasive procedures are used to diagnose heart defects, open narrowed heart valves, close abnormal connections (patent ductus arteriosus), or implant pacemakers. Dogs that have certain pericardial diseases (fluid around the heart) may be referred to a surgeon for removal of the pericardial tissue. SAGE does not offer open-heart surgery.

**Online references:**

**SAGE Veterinary Centers**  
*www.sagecenters.com*

Information on SAGE staff cardiologists, common conditions, and cardiac procedures.

**American College of Veterinary  
Internal Medicine**  
*www.acvim.org*

International certifying organization for veterinary specialists in cardiology, internal medicine, neurology, and oncology.

*We provide comprehensive  
specialized care for your pet  
through the integration of  
science and compassion.*

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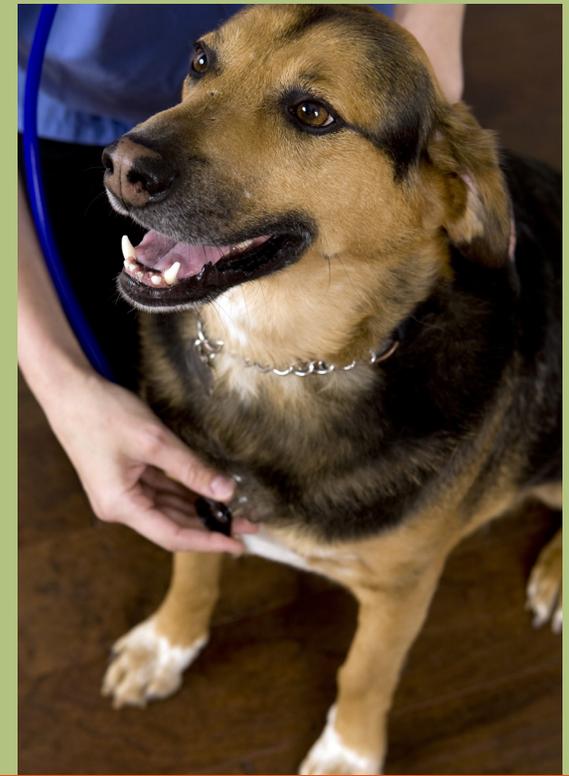
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# Cardiology



*www.sagecenters.com*

## MAKING AN APPOINTMENT

### **Which animals should be seen by a veterinary cardiologist?**

Any dog, cat, or pocket/exotic pet for which there is suspicion of heart disease is an appropriate patient for cardiology. This may come from the presence of a heart abnormality (murmur, abnormal heart rate/rhythm, abnormal lung sounds, etc.) discovered on physical examination by your veterinarian. It may also be based on the presence of signs related to heart disease. It is not advised to wait for signs of heart disease before having your pet evaluated by a cardiologist. Early detection and diagnosis can be very helpful.

Some dog and cat breeds that are prone to genetic forms of heart disease may see a cardiologist for screening prior to breeding.

### **What are some common signs of heart disease?**

Common signs include fast or labored breathing, coughing, lethargy/weakness, exercise intolerance, collapse/fainting, and distended abdomen. This list is not exhaustive and many signs of heart disease can also be signs of other non-cardiac disease processes. If your pet displays any of these signs, be sure to discuss them with your pet's primary care veterinarian or cardiologist to see if an examination is recommended.



During a typical examination, a veterinary technician will take your pet's medical history and basic vitals. The cardiologist will review this information along with medical records received from your primary care veterinarian and any previously performed diagnostics such as X-rays or laboratory results. The cardiologist will discuss your pet's relevant history and perform a thorough physical examination with a focus on the cardiovascular and respiratory systems. A diagnostic plan will be proposed and a formal estimate of costs for services will be provided.

After testing is completed, you will meet with the cardiologist again to discuss results, medication, follow-up plans, and prognosis. Your primary care veterinarian will receive a summary at the completion of your visit.

## DIAGNOSTIC TESTING

### **What diagnostic tests are recommended?**

There are a few commonly recommended tests when there is suspicion of heart disease. Most tests are performed with light restraint without the need for sedation or anesthesia. In some cases, a nervous pet may need some light sedation with your permission.

**Echocardiogram:** This is an ultrasound (sonogram) of the heart. This commonly recommended diagnostic is a non-invasive method of examining the heart structure and function. The cardiologist will perform this test personally and discuss results with you the same day.

**Electrocardiogram (ECG or EKG):** This test evaluates the electrical activity of the heart. It is used to diagnose abnormal heart rhythms and electrical disturbances. This is also a very common diagnostic.

**Digital Radiographs (X-rays):** While X-rays are often helpful at evaluating heart size, veterinary cardiologists tend to use X-rays to evaluate the non-heart structures, such as the lungs and airways. X-rays can help determine if there is fluid in or around the lungs.

Other common tests include blood pressure measurement, blood work, ambulatory ECG monitoring (Holter monitor), and event monitoring.

*A veterinary cardiologist may use an echocardiogram (seen at left) to identify abnormalities in the heart muscle and valves.*



*A Holter monitor provides a multiple lead recording of your pet's heart rhythm over the course of 24 hours. The soft vest keeps your pet from prematurely scratching off the skin electrodes.*

## TREATMENT OPTIONS

### **What can be done if my pet has heart disease?**

Not all patients with heart disease require medications. It is most important to determine an accurate diagnosis to help guide therapy recommendations. Most patients requiring therapy are treated with oral medications, which once started may be taken once or twice daily for life. Some patients that require hospitalization may receive injectable forms of medication for a short period until they are stable enough to go home on oral forms. Rarely, cases have a surgical treatment option. Management of heart disease can be life-saving or life-prolonging, depending on the process. Your pet's cardiologist will have a thorough discussion with you about what to expect.

### **What if I have a cardiac emergency?**

You should feel free to call SAGE at any time for advice. All SAGE locations are staffed 24 hours a day with a veterinarian and support staff to answer questions and evaluate pets that need to come in for care. Pets with a cardiac emergency often require in-hospital care for monitoring and may need to receive oxygen therapy and medications.

*(Treatment Options cont.)*