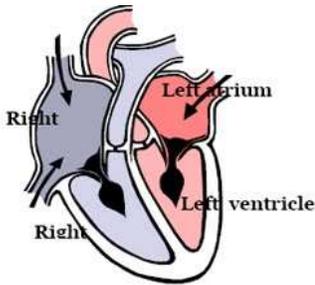




Heart Disease



The heart's job is to pump blood to the lungs for oxygen and then to the rest of the body. It has four chambers with several valves that are responsible for keeping blood flowing in one direction.

The right side of the heart receives blood from the body and then pumps it to the lungs to obtain oxygen. The left side of the heart receives oxygen rich blood from the lungs and then pumps it out to the body. Heart disease involves any disruption of this system.

Causes

There are several causes of heart disease. It can be due to a birth defect where the heart hasn't formed properly.

As pets age, the heart can become larger and the valves can become stiffer. Faulty valves don't close properly allowing some blood to flow backwards. When the heart chambers widen, the heart doesn't pump blood forward as efficiently.

Infections as well as some diseases, such as hyperthyroidism in cats, kidney disease, and heartworm disease in dogs, can damage the heart.

We can usually manage most forms of heart disease with proper diagnosis and treatment.

Signs

Signs of heart disease are similar regardless of the cause of the problem. The most common signs of heart disease are coughing, panting, decreased exercise tolerance, weakness, dizziness, or even fainting. If the right side of the heart is severely affected, the abdomen may swell with fluid. Cats only pant if very nervous. Therefore, cats that pant after exercise often have heart disease.

Diagnosis

The most important component to diagnosing heart disease is a physical exam that includes listening to the heart and lungs. Your veterinarian is listening for sounds of fluid in the lungs due to heart disease in the left side of the heart and sounds of a murmur due to blood swishing or going backwards in the heart through faulty valves.

The doctor may also hear an arrhythmia, an abnormal rhythm of the heartbeats. Any of these sounds means heart disease is likely but do not indicate the severity of disease.

We need to perform additional tests, such as chest x-rays, ECG, and blood pressure monitoring, to understand the extent of the heart disease. A



heartworm test is often recommended since the heartworm parasite can cause heart and lung disease.

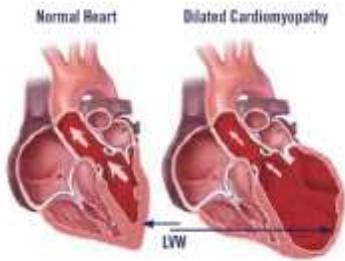
Thyroid tests, a blood count, urinalysis, and chemistries (to check electrolytes and kidney function) help to look for possible causes of the heart disease.

Congestive Heart Failure

Congestive heart failure occurs when the heart is unable to pump adequate blood to the body. There are many causes of congestive heart failure. The two most common ones are faulty valves and dilated cardiomyopathy.

Dilated Cardiomyopathy

The most common heart disease in dogs is called dilated cardiomyopathy (DCM) otherwise called an enlarged heart.



Note the thin left ventricular wall (LVW), dilated LV chamber, and depiction of decreased forward blood flow with DCM.

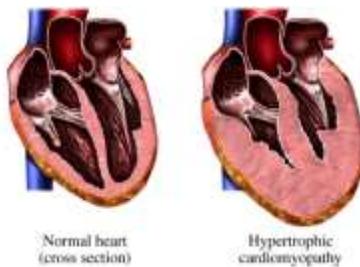
DCM is a disease of the heart muscle that results in weakened contractions and poor pumping ability.

As the disease progresses the chambers of the heart enlarge, one or more valves may leak, and signs of congestive heart failure develop.

Certain breeds such as Cocker Spaniels, Boxers, Great Danes, and Doberman Pinschers are more prone to this disease.

Hypertrophic Cardiomyopathy

The most common cause of heart disease of cats is hypertrophic cardiomyopathy (HCM). The muscle of the heart thickens inwardly, usually because of an overactive thyroid. As the muscles thicken, the heart cannot hold as much blood. It also cannot pump as much blood out to the lungs and the body.



Since the blood is not moving forward as it should, cats with HCM are at a higher risk of developing blood clots. Eventually, the heart cannot keep up and blood starts to back up into the lungs. Fluid leaks out of the blood vessels and into the lungs. Heart failure occurs and is the last stage of heart disease.

Treatment

Treatment depends on the cause of the heart disease. Surgery is required for some birth defects. Heart disease caused by other conditions may improve once those diseases are properly treated.

We can manage most of the other heart conditions with diet and medication. The goals of therapy are to increase the amount of oxygen in the blood, reduce or eliminate coughing, and, if indicated, treat for secondary pneumonia caused by fluid in the lungs.

Treatment may also help slow down the progression of the disease.

Prescription heart diets are low in sodium with added potassium and B vitamins to support the heart. Weight loss in overweight animals is very important for controlling heart disease. Diuretics will remove fluid that is building up in the lungs and reduce coughing. Certain medications will help the heart work better and treat high blood pressure. Some cats will need blood thinners to prevent blood clots.

Several supplements will improve heart health. Fish oil decreases inflammation and improves heart function. Coenzyme Q10 is an antioxidant that helps the heart muscle. There are also herbal combinations available as well.

Follow up tests and exams will help us know how your pet is responding to therapy. We will continue to monitor your pet on a regular basis.

Prognosis

The prognosis of pets with heart disease varies. It depends on the underlying cause of the heart disease, the severity, and their response to treatment. Another important consideration with heart disease includes the risk of anesthesia.

Although there are increased risks due to the heart disease, anesthesia is often necessary to perform certain procedures such as dental cleanings. Dental disease allows bacteria into the body and the heart is often one of the organs affected most. Dental disease can cause further worsening of the heart disease. Once a pet with heart disease is stabilized and responding to medicine, the risks of dental disease often outweigh the risk of anesthesia.

