

Pet's Name \_\_\_\_\_

Date \_\_\_\_\_



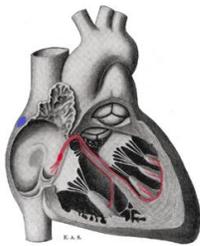
**Southside  
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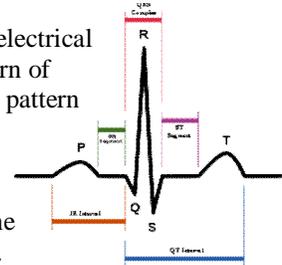


### Your Pet's Electrocardiograph (EKG)

**How does the heart work?** The heart is a large muscle that is made up of four chambers and four valves. The right side of the heart receives blood from the body and sends it to the lungs to receive oxygen. The left side of the heart receives blood from the lungs and sends it to the body. The two chambers that receive blood are called the atria. The atria contract simultaneously and send blood through valves into the two ventricles. The ventricles contract simultaneously and send blood through valves into the lungs or body. The heart is controlled by an electrical system that causes the parts of the heart to contract at the appropriate times. A failure of any of these mechanisms can lead heart disease and/or failure.



**What is an Electrocardiograph?** An EKG is a measure of the electrical activity of the heart. This activity should produce a regular pattern of electrical activity with expected sizes of the complexes involved. Any variation in the pattern or size of the complexes can indicate underlying heart disease. There are several complexes we look at. The P complex looks at the contraction of the atria of the heart. The QRS complex looks at the contraction of the ventricle of the heart. The T complex looks at the recovery of the ventricles after contraction. We are examining the height of the complexes, the width of the complexes, and the pattern of the complexes.



**What diseases can you see on an EKG?** There are a variety of diseases that can be seen or evaluated on EKG. Different types of heart disease will effect different types of dogs and cats. EKG is a good screening test for some of these diseases and helps in evaluation of heart diseases.

**Dilated Cardiomyopathy** Dilated Cardiomyopathy is a heart disease that mainly effects large breed dogs and certain breeds of small dogs. In this condition the heart becomes weak and does not fully contract. This causes enlargement of the heart and irregular heart rhythms. Clinical signs of weakness, lethargy and coughing, and signs on physical examination are not usually present until late in the disease. EKG is the best way to screen for this disease and catch it early. If it is caught early, we can slow down the progression of the disease and improve the length and quality of your pet's life.

**Hypertrophic Cardiomyopathy** Hypertrophic Cardiomyopathy is a disease seen mainly in cats. In this condition the heart muscle becomes thickened, leading to a smaller chamber to receive blood. The heart begins to pump quicker to move the same amount of blood. This leads to heart enlargement and irregular rhythms. Beyond a rapid heart rate, the cat usually does not act unusual until a catastrophic event such as a blood clot or sudden death occurs. EKG is an ideal screening test for this disease. Early intervention can prolong the length and quality of your pet's life.

**Valvular Disease** Many small breed dogs will get abnormal function of the heart valves. This produces a murmur heard on physical examination. This leads to blood going the wrong way and staying in the heart or building up pressure in the veins leading to the heart. Not all dogs with heart murmurs need to be treated. However, valvular disease can lead to heart enlargement and irregular rhythms. If heart enlargement or irregular rhythms are noted, this would indicate that we need to begin medical treatment on your dog.

**Your Pet's Result** \_\_\_\_\_

**Action Taken** \_\_\_\_\_

**Recommended Recheck** \_\_\_\_\_