

Cardiac Arrhythmias in Dogs

- An arrhythmia is an irregularity in the rate and/or pattern of the heartbeat.
- Dogs of any age or sex may experience arrhythmias.
- Rhythm disturbances may be caused by many factors, including diseases, drug reactions, and underlying heart conditions.
- Signs may include weakness, difficulty breathing, coughing, difficulty exercising, and fainting episodes.
- Diagnosis may require an electrocardiogram (ECG), blood work, chest radiographs (x-rays) and possibly an echocardiogram (ultrasound evaluation of the heart).
- Management of the arrhythmia may include treatment for the underlying disease, antiarrhythmia medications, and possibly a pacemaker.

What Is a Cardiac Arrhythmia?

A cardiac arrhythmia is an abnormality in a dog's heartbeat. It may be associated with the rate (too fast or too slow), an irregularity in the heartbeat pattern, or a problem in the location where electrical signals are formed in the heart. Some arrhythmias may be harmless and do not require treatment, while others can be serious and life threatening.

Dogs of any age or sex may experience arrhythmias. Certain breeds are predisposed to specific types of heartbeat abnormalities. Boxers, German shepherds, and cocker spaniels are among the many breeds prone to heart conditions that can be associated with changes in heart rate and rhythm.

What Causes an Arrhythmia?

There are many types of heart rhythm disturbances, and just as many potential causes. While heart disease can cause an arrhythmia, an arrhythmia does not necessarily indicate that your dog has a heart condition. Other causes of heart arrhythmias include:

- Hypothyroidism (low thyroid hormone levels in the blood)
- Chocolate toxicity
- Imbalances in electrolytes (substances in the blood)

- Drug reactions
- Heartworm disease
- Tumors
- Trauma

What Are the Signs of an Arrhythmia?

Dogs with arrhythmias that are relatively harmless may show no outward signs. In many cases, however, an arrhythmia can lead to heart failure, changes in blood pressure, and alterations in blood flow to vital organs. Dogs with these types of arrhythmias may show signs such as:

- Weakness, depression
- Coughing or difficulty breathing
- Exercise intolerance (difficulty exercising)
- Fainting episodes
- Pale gums
- Sudden death

How Is This Condition Diagnosed?

Your veterinarian may note an irregularity in the heartbeat when listening to your pet's heart with a stethoscope. An electrocardiogram (ECG) can provide additional information to further define the type of arrhythmia present.

Rhythm disturbances may be caused by many factors, including diseases, drug reactions, and underlying heart conditions.

If your veterinarian suspects that the abnormality is caused by a heart condition, he or she may recommend chest radiographs (x-rays) and/or an echocardiogram, which is an examination of the heart using ultrasound equipment. Depending on your pet's condition, the veterinarian may refer your pet to a veterinary cardiologist (a heart specialist).

Common Conditions

Since many other factors besides heart disease can cause arrhythmias, your veterinarian will probably also suggest doing blood work to look for underlying diseases or conditions.

How Are Arrhythmias Treated?

If the arrhythmia is caused by an underlying condition, such as hypothyroidism, treating the underlying disease may help resolve the arrhythmia. Otherwise, the goal of treatment is to eliminate or manage any discomfort your dog may have and prevent dangerous arrhythmias from leading to sudden death.

Numerous medications can help control arrhythmias. Many of these drugs may have side effects, so be sure to ask your veterinarian if there are signs you should watch for. In some cases, it is recommended that a pacemaker be implanted for long-term control of the arrhythmia.

Once your pet is diagnosed with an arrhythmia, your veterinarian may recommend periodic recheck examinations to evaluate your pet's heart rate/rhythm and assess your pet's response to treatment. Blood work, echocardiography, and other diagnostic tests sometimes need to be repeated periodically to help protect your pet's health.