

Procainamide

Procainamide is an antiarrhythmic medication. That is, it is used to treat certain types of cardiac *arrhythmias*, or abnormalities in the electrical activity of the heart. It does this by blocking the entry of sodium into heart muscle cells (class I antiarrhythmic activity). Please refer to the “Arrhythmias” information sheet for more details about the diagnosis and treatment of cardiac rhythm disturbances.

As is true for any antiarrhythmic medication, an *electrocardiogram (EKG)* must be performed before and several days after initiation of therapy with procainamide. This is a recording of the heart’s electrical activity, and is used to document and characterize the type and severity of the arrhythmia present (first EKG), and later to assess its response to treatment (second EKG). For the kind of arrhythmia typically treated with procainamide, each of these should take the form of a 24-hour ambulatory EKG (Holter monitor) in order to ensure an accurate representation of the frequency and severity of the arrhythmia. Medical therapy is initiated and later modified as necessary based on the results. This may include a change in the dose of procainamide, addition of a second antiarrhythmic agent, or occasionally discontinuation of procainamide altogether.

Side effects of procainamide occasionally include loss of appetite or vomiting. In addition, any *antiarrhythmic* agent may rarely have a seemingly paradoxical *proarrhythmic* effect, whereby the arrhythmia worsens instead of improving as expected. Although this is uncommon, side effects may occur if it leads to a significant drop in blood pressure. In this case, symptoms may include loss of appetite, lethargy, weakness, or fainting. Unfortunately, arrhythmias can be fatal, and sudden death may occur even with antiarrhythmic therapy.

Any change in the administration of procainamide should be discussed first with a doctor. If any of the above symptoms are noted, or if you have any questions or concerns, please call your veterinarian or Veterinary Specialty Services immediately to discuss an appropriate plan. Problems that are caught early are more easily corrected and less likely to require a visit to the hospital.