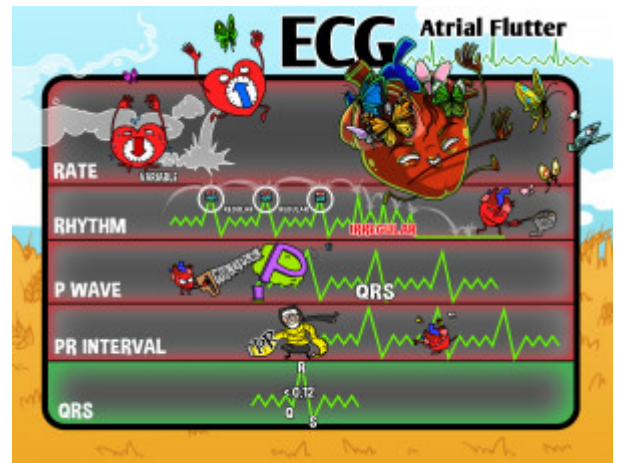


## ECG: Atrial Flutter

Atrial flutter is an atrial tachydysrhythmia that originates from a single ectopic point in one of the atria. The rate is variable with the atria ranging between 250 to 350 bpm while the ventricles vary greater or less than 100 bpm. The rhythm may be regular or irregular. The presence of multiple P waves before every QRS creates a saw tooth-shaped pattern. Atrial flutter is associated with certain conditions such as, CAD, mitral valve problems, PE, COPD, cor pulmonale, cardiomyopathy, and hyperthyroidism. Medications to treat atrial flutter include amiodarone, calcium channel blockers, beta adrenergic blockers, digoxin, and ibutilide. Cardioversion and ablation may also be indicated to alleviate symptoms of atrial flutter.



PLAY PICMONIC

### Rate

#### Variable

##### [Variable Heart-timer](#)

In atrial flutter, the atrial rate varies between 200-350 bpm. The ventricular rate, based on the conduction rate, is approximately 100 bpm.

### Rhythm

#### Regular or Irregular

##### [Regular and Irregular Rhythm-drums](#)

Although atrial rhythm is regular, ventricular rate may be irregular in individuals with atrial flutter.

### P Wave

#### Saw Tooth, Multiple Before Every QRS

##### [Multiple Saw Teeth before QRS](#)

In atrial flutter, the presence of multiple P waves before every QRS creates a saw tooth-shaped pattern. The flutter waves represent atrial depolarization and repolarization.

### PR Interval

#### Non-measurable

##### [Nun-measuring-tape](#)

In atrial flutter, the PR intervals are variable and non-measurable.

### QRS Interval

#### < 0.12 seconds

##### [Less-than 0.12](#)

Like normal sinus rhythm, the QRS interval of individuals with atrial flutter is less than 0.12 seconds.