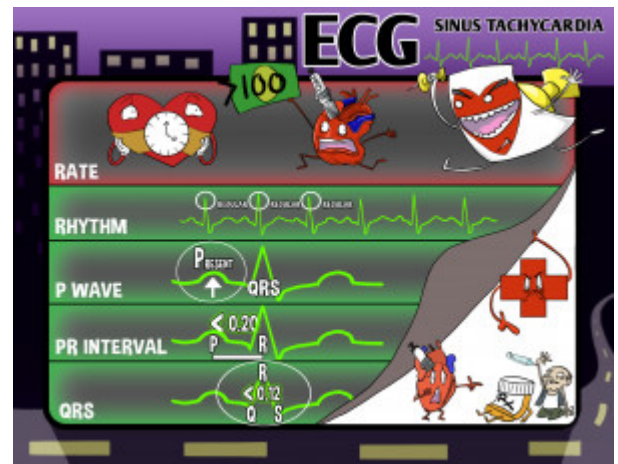


## ECG: Sinus Tachycardia

Sinus tachycardia is characterized by a normal conduction pathway with the SA node firing at a regular rate between 101 to 200 bpm, or for simplicity greater than 100 bpm. The ECG will show one upright P wave before every QRS. The PR interval is between 0.12-0.20 seconds (or less than 0.20), while the QRS interval is less than 0.12 seconds. Causes of sinus tachycardia include anemia, hyperthyroidism, heart failure, anxiety, fear, fever, exercise, and pain. Medications, such as epinephrine (Adrenalin), norepinephrine (Levophed), theophylline (Theo-Dur), hydralazine (Apresoline), and OTC cold remedies (pseudoephedrine [Sudafed]), can cause tachycardia. Management of sinus tachycardia involves treating the underlying cause.



PLAY PICMONIC

### Rate

> 100 bpm

[Greater-than \(100\) Dollar-bill Heart-timer](#)

The heart rate of an individual with sinus tachycardia is between 101 to 200 bpm, or for simplicity greater than 100 bpm.

### Rhythm

Regular

[Regular rhythm](#)

The SA node is the pacemaker in individuals with sinus tachycardia and fires at a regular rhythm.

### P Wave

Present, Upright, Every QRS

[Present with Up-arrow before QRS](#)

Like normal sinus rhythm, there is one upright P wave before every QRS in the individual with sinus tachycardia.

### PR Interval

0.20 seconds

[Less-than 0.20](#)

Like normal sinus rhythm, the PR interval of individuals with sinus tachycardia is between 0.12 to 0.20 seconds, or for simplicity, less than 0.20 seconds.

### QRS Interval

0.12 seconds

[Less-than 0.12](#)

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

## Treatment

### Treat Underlying Cause

#### [Treating Underlying Med-bottles and Drug abuse](#)

Treatment of sinus tachycardia involves addressing the underlying cause. Effective pain management will slow down the heart rate of individuals experiencing tachycardia related to pain. Vagal maneuvers may be taught to inhibit the vagus nerve to slow down the heart rate. Medications, such as beta blockers or calcium channel blockers, can be administered to treat the tachycardia. In severe cases involving clinically unstable patients, synchronized cardioversion may be used.