

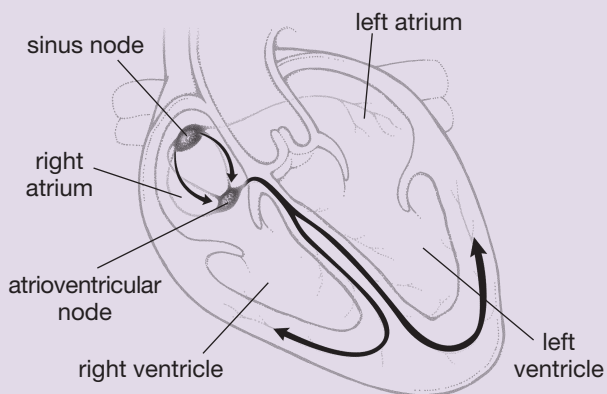
Common Arrhythmias

Each heartbeat is initiated by an electrical signal. The signal originates in a group of cells in the right atrium called the sinus node and travels throughout the atria toward a region in the center of the heart called the atrioventricular (AV) node. This causes the atria to contract, pushing blood into the ventricles. The signal then travels through a network of specialized fibers to all parts of the ventricles. The ventricles contract, and blood is sent into the aorta and other arteries in the body.

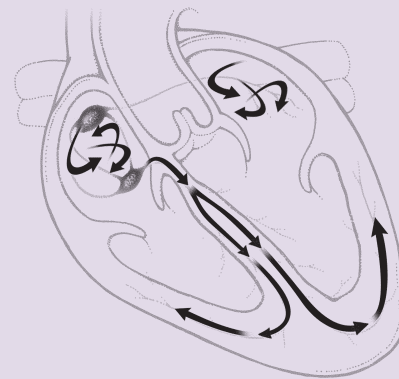
Arrhythmias are abnormalities in the heart's rhythm. They can occur if the sinus node develops an abnormal

rate or rhythm, if the electrical signal is interrupted along its route, or if another part of the heart beats faster than the sinus node and produces its own electrical signal.

In arrhythmias called supraventricular tachycardias, the atria contract too rapidly. Atrial fibrillation is a type of supraventricular tachycardia in which the atria quiver and do not contract effectively. In ventricular tachycardia, the ventricles contract too rapidly, while in ventricular fibrillation, the ventricles quiver and do not contract effectively. The term bradycardia is used to indicate that the heart is beating too slowly.



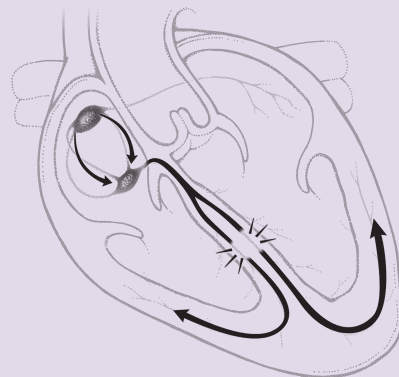
Normal Heart Rhythm—An electrical signal originates in the sinus node, travels through the atria and the AV node, and continues into the ventricles. (Arrows denote pathway of electrical signal.)



Atrial Fibrillation—The electrical activity in the atria becomes chaotic and uncoordinated, so that the atria quiver rather than contract effectively.



Ventricular Fibrillation—Chaotic and uncoordinated electrical activity in the ventricles causes the ventricles to quiver rather than contract effectively.



Heart Block—A cause of bradycardia in which the AV node delays or prevents the electrical signal from traveling from the atria to the ventricles.