

Heart Arrhythmia: An Irregular Heart Beat

Lei Yi*

Department of Burn, Ruijin Hospital Affiliated to Shanghai Jiao Tong University School of Medicine, Shanghai, 200025, China

DESCRIPTION

Heart arrhythmia is also called as dysrhythmia, which is an irregular heartbeat. It means the heart is out of its normal rhythm. The term "arrhythmia" refers to a deviation from the normal sequence of electrical impulses. The electrical impulses can be too fast, too slow, or irregular, which means the heart beats too fast (tachycardia), too slow (bradycardia), or irregular. If the heart is not beating properly, it cannot pump blood effectively. When the heart cannot pump blood effectively, the lungs, brain, and all other organs cannot function properly and can shut down or become damaged. Generally the heart arrhythmia problems occur when electrical signals that synchronize the heart's beat doesn't work properly. However, sometimes it's normal to have a fast and slow heart rate. For example, the heart rate may increase during exercise or decrease during sleep. However, if the arrhythmia persists for a long period of time, the heart rate may be too slow or fast or the heart rhythm becomes irregular, and the heart pumps less effectively. Arrhythmias can be completely harmless or life-threatening.

Arrhythmias are generally classified according to the speed of the heart rate. Tachycardia-It is a fast heart rate. An adult heart beats over 100 beats per minute. The two types of tachycardia are described as follows:

1. Supraventricular arrhythmias: Arrhythmias that begin in the atria (upper chambers of the heart). "Supra" means above "Ventricular" refers to the lower chamber of the heart, or ventricle. Types of supraventricular arrhythmias include: Paroxysmal Supraventricular Tachycardia (PSVT), accessory pathway tachycardia's (bypass tachycardia), and Atrioventricular Nodal Re-Entrant Tachycardia (AVNRT). Atrial fibrillation and atrial flutter.

2. Ventricular Arrhythmias: Arrhythmias that originate in the ventricles (lower chambers of the heart). Ventricular arrhythmia types include-Premature Ventricular Contraction (PVC), Ventricular tachycardia (V-tach), Long QT, ventricular fibrillation, and ventricular tachycardia.

Bradycardia-A slow heart rhythms caused by the diseases in the heart's conduction system, such as a Sinoatrial node (SA

node), Atrioventricular node (AV node) or HIS-Purkinje network. A resting heart rate is of less than 60 beats per minute. Types of bradycardia are sick sinus syndrome, conduction block

Heartbeat (contraction) begins when an electrical impulse passes from the sinus node (also called the SA node or sinoatrial node) and moves through it. The SA node is sometimes called as the heart's "natural pacemaker" as it initiates the impulses for the heart to beat. A normal electrical sequence starts in the right atrium and propagates throughout the atria to the Atrioventricular (AV) node. From the AV node, Electrical impulses travel to all parts of the ventricle through a specialized group of fibres called the His-Purkinje system. This exact path must be followed in order for the heart to pump properly. As long as electrical impulses are being transmitted normally, the heart beats and pumps regularly. A normal heart in an adult beats 60-100 times per minute.

Arrhythmias may not cause any signs or symptoms. A doctor may notice an arrhythmia when the person consults a doctor for another health reason. Signs and symptoms of arrhythmias may include:

- Fluttering in the chest and pain in the chest
- Increased heartbeat (tachycardia)
- Slow heartbeat (bradycardia)
- Breathing difficulty
- Anxiety, Fatigue
- Light-headedness or dizziness
- Sweating or Fainting (syncope).

Things that can cause an irregular heartbeat (arrhythmia) such as:

- Current heart attack or scarring from a previous heart attack
- Blocked arteries in the heart
- Changes to the heart's structure, such as from cardiomyopathy
- Diabetes
- Age and genetics
- Infection with COVID-19
- Hyperthyroidism and hypothyroidism
- Certain medications, including cold and allergy drugs bought without a prescription
- Smoking

Correspondence to: Lei Yi, Department of Burn, Ruijin Hospital Affiliated to Shanghai Jiao Tong University School of Medicine, Shanghai, 200025, China, E-mail: lei98@gmail.com

Received: 12-Sep-2022; Manuscript No. AOA-22-19295; **Editor assigned:** 14-Sep-2022; PreQC. No. AOA-22-19295 (PQ); **Reviewed:** 28-Sep-2022; QC. No. AOA-22-19295; **Revised:** 05-Oct-2022; Manuscript No. AOA-22-19285 (R); **Published:** 12-Oct-2022, DOI: 10.35248/2329-9495.22.10.286.

Citation: Yi L (2022) Heart Arrhythmia: An Irregular Heart Beat. Angiol Open Access. 10:286.

Copyright: © 2022 Yi L. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

- Some tests that may also be done to confirm the presence of arrhythmia include:
- Electrocardiogram (ECG or EKG)
- Echocardiogram
- Cardiac catheterization
- Ambulatory monitors
- Electrophysiology study (EPS)
- Tilt table test
- Stress test

CONCLUSION

Things that increase the risk of heart arrhythmias such as, coronary artery disease, other heart problems and previous heart surgery, high blood pressure, congenital heart disease, thyroid disease, obstructive sleep apnea, electrolyte imbalance, certain drugs and supplements, excessive alcohol, caffeine, nicotine or

illegal drug use. Complications depend on the type of heart arrhythmia. In general, complications of arrhythmias may include stroke, sudden death and heart failure. Heart arrhythmias are associated with a high risk of blood clots. If a blood clot breaks, it can travel from the heart to the brain and causes a stroke. Blood thinners can reduce the risk of stroke associated with atrial fibrillation and other heart rhythm disorders. The doctor will decide if a blood thinning medication is correct for the person.

Lifestyle changes to decrease the risk of heart disease can help prevent arrhythmias. A heart healthy lifestyle includes: Eat a heart-healthy diet, keep the body active, maintain a healthy weight, quit smoking, limit or avoid caffeine and alcohol, reduce stress as acute stress and anger can lead to arrhythmias, using medicines as directed and by the doctor.