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Fact Sheet
Heart Arrhythmias: Types and Frequency

Heart arrhythmias, or dysrhythmias, are abnormal heart rhythms that can cause the heart to pump less effectively. Some brief arrhythmias do not greatly affect the overall heart rate or rhythm. However, if arrhythmias last for some time, they may cause a heart rate that is too fast or too slow, or an erratic heart rhythm, and can lead to more serious conditions, including stroke and heart failure.

In the United States, more than 4 million people suffer from recurrent arrhythmias warranting a physician's care, and more than 780,000 people are admitted to the hospital for arrhythmias annually. Arrhythmias become more common as people age. Arrhythmias vary widely in their characteristics and frequency of occurrence in an individual patient. Common types of arrhythmias are:

Atrial Fibrillation (A Fib): In A Fib, the heartbeat is irregular and rapid, sometimes beating as often as 300 times a minute, about four times faster than normal. Although A Fib is not life threatening, it can lead to other rhythm problems, chronic fatigue, and congestive heart failure. In addition, chances of having a stroke are five times higher, and about 15 percent of strokes occur in people with A Fib.

A Fib is found in 2.2 million Americans. Although it can occur in people of any age, A Fib is unusual among young people and the likelihood of developing the condition increases with age. After age 65, between 3 percent and 5 percent of people have A Fib. Approximately 9 percent of people who are age 80 or older have the condition.

Atrial Flutter (AF): Like A Fib, AF is characterized by a rapid heartbeat. Instead of many disorganized signals, however, AF is caused by a single electrical wave that circulates very rapidly in the atrium, about 300 times a minute, leading to a very fast, steady heartbeat.

Bradycardia: a slow heart rate of less than 60 beats per minute. This condition does not usually require treatment unless there are prolonged or repeated symptoms, such as fatigue, dizziness, lightheadedness, fainting or near-fainting spells.

Heart Block: When electrical impulses generated in the upper chambers of the heart are not properly transmitted to the lower chambers, heart block occurs. Then, the heart beats too slowly, reducing the oxygen supply to the body and brain.

Long QT Syndrome (LQTS): A disorder of the electrical system that can be inherited, acquired after taking certain medications, or caused by a combination of heredity and medications. In an ECG wave form the Q-T interval represents the time for electrical activation and inactivation of the ventricles. When this interval takes longer than normal, it is considered long QT Syndrome. People with LQTS are susceptible to ventricular fibrillation.

Palpitations: the sensation of the heart beating rapidly or irregularly.

Premature Contractions: defined as extra, early, or "skipped" beats. These beats are the most frequent cause of irregular heart rhythms. They can start in the upper or lower chambers of the heart.

Sick Sinus Syndrome (SSS): A group of signs or symptoms that indicate the heart's natural electrical pacemaker, the sinoatrial node, is not functioning properly. The heart rate can switch back and forth between bradycardia and tachycardia. Many people with SSS have no symptoms, or the symptoms may not seem serious enough for concern. Consequently, the condition may not be diagnosed until it is advanced. A permanent pacemaker, sometimes in combination with medication, is the primary treatment. SSS becomes more common with age and affects about three out of every 10,000 people.

Sinus Tachycardia: A harmless rhythm and a normal increase in heart rate that happens with fever, excitement, and exercise. It does not require treatment, except in rare cases when an underlying problem, such as anemia or hyperthyroidism, should be treated.

Syncope (Fainting): Temporary loss of consciousness, described as "fainting" or "passing out," related to insufficient blood flow to the brain. Syncope can be caused by serious heart rhythm disorders and needs to be evaluated carefully. Sometimes, the cause is not heart related. Syncope accounts for 3 percent of emergency room visits and 6 percent of hospitalizations in the United States.

Tachycardia: a fast heart rate of more than 100 beats a minute, either regular or irregular in rhythm. Tachycardia can produce palpitations, rapid heart action, chest pain, dizziness, lightheadedness, fainting, or near fainting if the heart beats too fast to circulate blood effectively. It can be controlled with medications or by identifying and destroying the focus of rhythm disturbances.

Ventricular Tachycardia (VT): VT is characterized by a very fast heart rate and is usually seen with other serious heart disease. This condition can interfere with the heart's ability to pump enough blood to the brain and other vital organs. VT usually requires prompt treatment, with medication, radiofrequency ablation, or surgery. People with VT are often protected with an implantable defibrillator. Because VT can lead to ventricular fibrillation (see below), it is considered a serious condition that warrants aggressive monitoring and treatment.

Ventricular Fibrillation (VF): Sudden cardiac arrest or death, is caused by ventricular fibrillation, an electrical circuitry problem. VF accounts for half of all cardiac deaths. Within seconds, an individual loses consciousness and, without immediate emergency treatment, will die within minutes. If treated in time, VT and VF can be converted into normal rhythm with electrical shock. Estimates indicate that more than 70 percent of VF victims die before reaching the hospital.

Sources:

American Heart Association (www.americanheart.org)
Heart Rhythm Society (www.hrspatients.org)

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