Glossary of Cardiology Terms

**Automated External Defibrillator (AED):** an external device that can be used by minimally trained people in emergency situations to deliver an electric shock to “reset” a heart that is fibrillating (quivering instead of pumping).

**Anti-Tachycardia Pacing (ATP):** ATP is a form of ICD therapy that uses pacing to terminate a ventricular arrhythmia. ATP is different than a shock; most of the time, ATP is painless.

**Arrhythmia:** an abnormal heart rhythm (too fast, too slow or irregular)

**Atria:** the upper chambers of the heart that pump blood to the lower chambers (ventricles).

**Atrial Fibrillation (AF):** a very fast, disorganized heart rhythm in the upper chambers of the heart.

**Atrial Tachycardia (AT):** a rapid heart rate that starts in the atria.

**Bradycardia (Bradyarrhythmia):** an abnormally slow heart rhythm, normally less than 60 beats per minute.

**Cardiomyopathy:** myocardial disease or dysfunction, often characterized by an enlarged heart, especially the left ventricle.

**Cardioversion:** termination of an atrial or ventricular tachyarrhythmia (other than ventricular fibrillation) by the delivery of a direct low-energy electrical current that is synchronized to a specific period during the heartbeat (during the ventricular depolarization). Synchronization of the shock helps to prevent ventricular fibrillation.

**Coronary Artery Disease (CAD):** disease of the arteries in the heart, often characterized by blockage due to plaque buildup that restricts blood flow.

**Ejection fraction (EF):** the percentage of blood pumped from the left ventricle per heartbeat, used to evaluate the efficiency of left ventricular emptying. Normal EF is 55-65%. Clinical studies have shown that EFs below 35% may be a predictor of high risk for sudden cardiac arrest.

**Electrocardiogram (ECG):** a graphical recording of the heart’s electrical signals.

**Electrophysiologist (EP):** a cardiologist who specializes in the diagnosis and treatment of heart rhythm disorders.

**Heart Attack:** See **Myocardial Infarction**.

**Heart Failure:** the inability of the heart to efficiently pump blood to the body, characterized by difficulty breathing, chronic fatigue and fluid retention.

**Holter Monitoring:** a technique for the continuous recording of electrocardiographic (ECG) signals, usually over 24 hours, to detect and diagnose heart rhythm problems (also called ambulatory monitoring).
Implantable Cardioverter-Defibrillator (ICD): a small medical device that is implanted in the chest. It monitors the patients' heart rhythm and delivers various electrical therapies to stop ventricular arrhythmias that can lead to sudden cardiac arrest. Advanced devices can terminate potentially lethal arrhythmias painlessly in some cases.

Ischemia: a decrease in the supply of oxygenated blood to vital organs or body tissue due to obstruction of blood vessels. Cardiac ischemia is marked by chest pain and may lead to tissue damage (myocardial infarction).

Left Ventricular Dysfunction: when the heart is unable to maintain normal blood output due to a decrease in left ventricular function; characterized by a low ejection fraction.

Myocardial Infarction: death of heart muscle caused by an interruption of blood flow. Sometimes called a heart attack.

NYHA class: a scale used to classify the severity of symptoms in heart failure, based on degree of physical exertion needed to produce symptoms. Class I (mild), no symptoms with normal activity; Class II (mild), symptoms with moderate activity; Class III (moderate), symptoms with minimal or mild activity; Class IV (severe), symptoms while at rest.

Primary Prevention: used to describe the use of ICD therapy in patients who have not had a sudden cardiac arrest episode or another arrhythmic event.

Resynchronization Therapy (Biventricular Pacing): a term used to describe the effort to resynchronize the contractions of the lower chambers of the heart (ventricles) by sending tiny electrical impulses to both sides of the heart. Resynchronization can help the heart pump blood more efficiently and has been shown to decrease the symptoms of heart failure in some patients.

Secondary Prevention: used to describe the use of ICD therapy in patients who have had a sudden cardiac arrest or other life-threatening arrhythmic event.

Sudden Cardiac Arrest (SCA): The abrupt stopping of the heartbeat. Without immediate treatment with an AED or ICD, sudden death usually occurs within minutes.

Sudden Cardiac Death (SCD): death from a sudden cardiac arrest.

Tachycardia (Tachyarrhythmia): a category of heart rhythm disorders characterized by an abnormal rapid beating of either or both chambers of the heart, usually defined as a rate over 100 beats per minute.

Ventricles: the two lower chambers of the heart.

Ventricular Fibrillation: a lethal condition, which starts in the ventricles (lower chambers) of the heart and causes the heart muscle to quiver rapidly and pump little or no blood.

Ventricular Tachycardia (VT): a rapid heart rate that starts in the ventricles. During VT, the heart does not have time to fill with enough blood between heartbeats to supply the entire body with sufficient blood. It can be life threatening if it progresses to ventricular fibrillation.