



# Cardiac Terminology

MADE EASY

Sallie Crawley

# The Ultimate Cardiac Terminology Guide

Are you confused by the terminology and abbreviations that are associated with your heart health? I know I certainly was; I hope you find this cheat sheet helpful.

To be able to have meaningful conversations with your GP, Cardiologist or Medical Specialist you need to speak the same language.

This Ultimate Cardiac Terminology Guide cuts through the confusion and will help you understand the words used to describe and discuss heart health illnesses. This cheat sheet will help you to understand some of the common terms that they use. It will help you to feel more in control and know what is meant in meetings and in documents that are about you.

It's a glossary of commonly used heart and vascular related medical terms. Explanations of words used to discuss or describe heart illnesses. Everything you need to know to help you understand your cardiac health, what your cardiac team and your GP are talking about so that you feel more in control of your life.



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### A

**Aerobic exercise:** Activity which requires continuous rhythmic muscle contraction of the legs and/or arms.

**Anaemia:** A deficiency in the oxygen-carrying material of the blood.

**Aneurysm:** A pathological blood-filled dilatation of a blood vessel. Bulging of the wall of a vein, artery, or heart due to weakening by disease, injury, or birth defect.

**Angina pectoris:** A condition in which the heart muscle itself doesn't receive a sufficient blood supply, resulting in pain in the chest and often in the left arm and shoulder.

**Angina:** Pain due to an inadequate supply of oxygen to the heart muscle. The term angina is now used almost exclusively to denote angina pectoris, the medical term for chest pain or discomfort that is most often due to coronary heart disease.

Stable angina refers to episodes of chest discomfort that are usually predictable, and which occur on exertion or under mental or emotional stress. Unstable angina refers to episodes of chest discomfort that are unpredictable and usually occur while at rest.

**Ambulatory blood pressure monitoring (ABPM):** Is when your blood pressure is measured as you move around, living your normal daily life.

**Angiogram:** Test done by injecting contrast dye into a body organ to observe the heart or systemic circulation.

**Angioplasty:** A procedure with a balloon-tipped catheter to enlarge a narrowing in a coronary artery. This is also known as Percutaneous transluminal coronary angioplasty (PCTA).

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**Anticoagulant:** Medicine which delays clotting of the blood. If given when a blood vessel is blocked by a clot, it tends to prevent new clots from forming or the existing clot from enlarging, but does not dissolve an existing clot.

**Antihypertensive:** 1. Counteracting high blood pressure. 2. An agent that reduces high blood pressure.

**Antithrombotic:** An agent used to prevent or interfere with the formation of a thrombus (a blood clot in a blood vessel or within the heart).

**Aorta:** Largest artery in the body. It carries blood from the heart's left ventricle and distributes it throughout the body.

**Aortic:** Related to the aorta, which is the major vessel that carries oxygenated blood from the heart to the body. Sometimes this term is used to denote the aortic valve, which is the valve that prevents back-flow of blood from the aorta into the left ventricle. (For example, "aortic stenosis.")

**Arrhythmia:** Heartbeat/rhythm.

**Arteriosclerosis:** Condition in which the walls of the arteries thicken and lose their elasticity, thus decreasing blood flow through them. May be due to a build-up of fibrous tissue, lipids, or minerals. Also called hardening of the arteries, and usually occurs naturally with aging.

**Artery:** The vessel that carries blood away from the heart. Arteries generally carry oxygenated blood. In mammals, the exception is the pulmonary artery, which carries deoxygenated blood to the lungs.

**Atrium:** Are the two upper chambers of the heart. The chamber of the heart that collects blood returning from the rest of the body. In all vertebrates but fish, there are two atria, left and right.

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The right atrium collects deoxygenated blood from the body and passes it to the right ventricle.

The left atrium collects oxygenated blood from the lungs and passes it to the left ventricle.

### B

**Blood clot:** A semi-solidified mass of blood, either in or out of the body.

**Blood pressure:** Pressure of the blood on the walls of the arteries, produced primarily by contraction of the heart muscle.

Its measurement is recorded as two numbers: the first (systolic pressure) is measured after the heart contracts and is highest; the second (diastolic pressure) is measured before the heart contracts and is lowest.

**Blood pressure (low):** See hypotension

**Blood pressure (high):** See hypertension

**Body mass index (BMI):** Index for relating a person's body weight to his or her height. The body mass index (BMI) is a person's weight in kilograms (kg) divided by the person's height in meters (m) squared.

**Bradycardia:** Abnormally slow heart rate. Generally, any rate under 60 beats per minute.

### C

**Cardiac arrest:** Occurs when the heart stops beating and the circulation of blood ceases.

**Cardiac catheterization:** Test done by putting a long, narrow, flexible tube into a blood vessel and guiding it into the heart to measure the mechanics of blood flow and to determine the position and size of structural defects.

**Cardiomyopathy:** Disease of the heart muscle that reduces the ability of the heart to pump enough blood. This is the general term for diseases of the heart muscle (myocardium). The most common of these diseases is the dilated cardiomyopathy in which the disease weakens the heart muscle and causes left ventricular dilation leading to increased diastolic pressure and volume.

**Cardiopulmonary resuscitation (CPR):** Emergency measure used by one or two people to try to revive a person whose heart and breathing have stopped.

**Cardiovascular:** Pertaining to the heart and blood and blood vessels.

**Cardioversion:** Use of low voltage electric shock to stop an abnormally fast heart rhythm through paddles placed on the chest surface.

**Carotid endarterectomy:** A surgical procedure designed to clean out material blocking the carotid artery, a major artery in the neck that supplies blood to the brain. The aim of the procedure is to restore normal blood flow to the brain, thereby preventing a stroke.

**Catheter:** Thin, flexible tube which can be guided into a body organ.

**Cerebrovascular:** Pertaining to the blood vessels of the cerebrum, or brain.

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**Cholesterol:** Also known as total cholesterol. A fatlike substance that is a building block of the outer layer of cells (cell membranes). It is essential to the formation of bile acids, cell membranes, vitamin D and certain hormones. Cholesterol is not dissolved in the blood, but is transported in the bloodstream as water-soluble molecules known as lipoproteins. The lipoproteins are characterized by their density: high density lipoprotein (HDL) and low-density lipoprotein (LDL).

**Claudication:** Cramping of the muscles (typically the calf muscles) with exercise, produced by inadequate blood flow.

**Congestive heart failure:** Inability of the heart to pump blood with normal efficiency. When this happens, the heart is unable to supply enough blood to the body's other organs such as brain, liver and kidneys. Symptoms can include shortness of breath, pooling of fluid in the legs and feet, swelling and enlargement of the heart.

**Coronary arteries:** Arteries arising from the base of the aorta which carry blood to the heart muscle.

**Coronary artery bypass Graft (CABG):** Surgery done to bypass narrowed or obstructed areas to improve blood flow. A surgical procedure whereby a new route is created around plaque within a coronary artery, using part of a vein as a graft. The procedure permits increased flow to deliver oxygen and nutrients to the heart muscle.

**Coronary heart disease (CHD):** Condition caused by narrowing of the coronary arteries resulting in decreased blood supply to the heart (ischemia). It begins when hard cholesterol substances (plaques) are deposited within a coronary artery. The plaques in the coronary arteries can rupture cause the formation of a tiny clot, which can obstruct the flow of blood to the heart muscle, producing symptoms and signs of CHD that may include chest(angina), heart attack or sudden death due to a fatal disturbance of the heart rhythm. Also known as coronary artery disease (CAD).

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**Coronary occlusion:** Obstruction in a coronary artery which interrupts flow of blood to the heart muscle. Also called a heart attack.

**Coronary:** Relating to the heart, or to one of the two arteries that originate in the aorta and supply blood directly to heart tissue.

**Cyanosis:** A condition in which a person's skin is discoloured to a bluish hue because of inadequate oxygenation of the blood.

### D

**Defibrillation:** Use of high voltage electric shock to stop an abnormally fast heart rhythm through paddles placed on the chest surface (external) or around the heart (internal).

**Diabetes mellitus:** Disease characterized by high levels of glucose in the blood caused by a failure of the pancreas to produce enough insulin or by ineffective use of insulin in the body.

**Diastole:** Normal period of relaxation and dilatation of the heart cavities.

**Diastolic pressure:** The minimum blood pressure, measured before the heart contracts. Usually the second number recorded in a blood pressure reading.

**Dilatation:** The condition of being abnormally dilated or enlarged.

**Diuretics:** Medicines which increase the flow of urine. Often used to treat conditions involving excess body fluid, such as hypertension and congestive heart failure.

**Dyspnoea:** Difficulty or shortness of breathing. Laboured breath.

### E



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**Echocardiogram:** Test in which pulses of sound are sent into the body, and the echoes returning from the surfaces of the heart produce images that are recorded.

**Ejection fraction (EF):** is a measurement, expressed as a percentage, of how much blood the left ventricle pumps out with each contraction. An ejection fraction of 60 percent means that 60 percent of the total amount of blood in the left ventricle is pushed out with each heartbeat.

**Electrocardiogram (EKG or ECG):** Graphic record of the electrical activity of the heart. A recording of the electrical activity of the heart. It is a simple, non-invasive procedure whereby electrodes are placed on the skin of the chest and to a machine that, when turned on, measures electrical activity all over around the heart. An example of its clinical use is in the initial of a heart attack, which is usually made by a combination of clinical symptoms and characteristic EKG changes; the EKG can detect areas of muscle (muscle deprived of oxygen) and/or dead tissue in the heart.

**Electrophysiology study (EP study):** Test done to evaluate the heart's electrical conduction system by inserting small catheters into the heart and reproducing symptoms and rhythm disturbances in a controlled setting.

**Embolism:** Blocking of a blood vessel by a blood clot or other substance carried in the blood stream.

## H

**Haemorrhage:** Profuse loss of blood or bleeding.

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**Haemorrhagic stroke:** Rupture of a blood vessel in or near the brain. This type of stroke accounts for 20% of all strokes that occur. There are two types of haemorrhagic stroke: haemorrhage, which occurs when a blood vessel on the surface of the brain ruptures and bleeds into the space between the brain and skull; and haemorrhage, which occurs when a blood vessel bleeds into the cerebrum, the main portion of the brain.

**Heart attack:** See also myocardial infarction. Death of the heart muscle due to the loss of blood supply, usually caused by a complete blockage of a coronary artery, one of the arteries that supplies to the heart muscle. Death of the heart muscle, in turn, causes chest pain and electrical instability of the heart muscle tissue. Also known as infarction (MI).

**Heart block:** Condition which results in a block or a slowing of the electrical impulses which travel through the heart.

**Heart rate:** Number of times the heart beats in one minute.

**High blood pressure:** A repeatedly elevated blood pressure exceeding 140 over 90 mmHg - a systolic pressure above 140 with a diastolic pressure above 90. Also known as Hypertension.

**High density lipoprotein (HDL):** A fat-like substance that transports cholesterol from the tissues of the body to the liver so it can be excreted in the bile. HDL is the so-called "good"; the higher the HDL cholesterol level, the lower the risk of coronary heart disease (CHD).

**Hypercholesterolemia:** Excess of cholesterol in the blood.

**Hyperlipidaemia:** Excess of fats or lipids in the blood.

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**Hypertension:** High blood pressure. A condition in which a person's blood pressure is abnormally high. For normal adults, the pressure should be less than 130 mmHg systolic and less than 85 mmHg diastolic. Pressures above 140/90 indicate a mild form of hypertension; above 180/110 is considered severe.

**Hypotension:** Low blood pressure is when your blood pressure is below 90/60mmHg. This does not necessarily mean that there is a problem. People with lower blood pressure tend to live longer.

I

**Infarct:** Area of tissue which is damaged or dies because of a blocked blood supply.

**Insufficiency:** Describes a condition in which a valve is not able to prevent back-flow of blood. The resulting back-flow is termed a regurgitation.

**Irregular rhythm:** Heartbeat that is unpredictable and without pattern.

**Ischemia:** Temporary deficiency of blood and oxygen in a portion of the body, often caused by a blockage in the blood vessel supplying that part.

L

**Lipid:** Term for fat or fat-like substance found in the blood, such as cholesterol.

**Low density lipoprotein (LDL):** A fat-like substance that transports cholesterol from the liver to the tissues of the body. LDL is the so-called "bad" cholesterol; elevated LDL levels are with increased risk of coronary heart disease (CHD).

### M

**METs (metabolic equivalent):** Units of measurement of the energy required to perform a physical activity. One MET is the energy used by your body while sitting quietly in a comfortable chair.

**Mitral Valve:** Valve that separates the left atrium and the left ventricle and prevents back-flow from the ventricle to the atrium. Derived from "miter," which it resembles. (A miter is a tall, pointed hat with peaks in front and back which is worn by a bishop.)

**Myocardial infarction (MI):** The medical term for heart attack. It refers to changes that occur in the heart muscle (myocardium) due to the sudden deprivation of circulating blood. The change is necrosis (death) of myocardial tissue.

### O

**Oedema:** Swelling that occurs when the body tissue contains more fluid than normal.

### P

**Pacemaker:** Small mass of specialized cells in the right atrium of the heart which initiates the electrical impulses that produce contractions of the heart. An implanted pacemaker is an electrical device which can control the beating of the heart by creating one or more rhythmic electrical impulses.

**Palpitations:** Sensation of fluttering of the heart.

**Percutaneous transluminal coronary angioplasty.** Procedure of stretching open a coronary artery with a balloon catheter to improve blood flow to the heart muscle.

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**Pericardium:** Closed sac around the heart.

**Phlebitis:** Inflammation of any vein, often in the leg.

**Plaque:** Deposit of fat or other substances in the lining of the arterial walls.

**Platelet Inhibitor:** An agent/therapy which prevents or interferes with the formation of blood clots in blood vessels.

**Polyunsaturated fat:** A fat containing polyunsaturated (a term used to denote more than one unsaturated bond - that is, more than one place where hydrogen can be added to the molecule) fatty acids, molecules derived from animal and vegetable fats and oils. Unlike saturated fats, polyunsaturated fats are considered beneficial in that they lower cholesterol.

**Prolapse:** Floppy valve, associated with regurgitation.

**PTCA:** Abbreviation for percutaneous transluminal coronary angioplasty. Procedure of stretching open a coronary artery with a balloon catheter to improve blood flow to the heart muscle.

**Pulmonary artery:** Artery that transports blood needing oxygen from the heart to the lungs.

**Pulmonary:** Relating to the lungs. Sometimes this term is used to denote the pulmonary valve, which is the valve that prevents back-flow of blood from the pulmonary artery into the right ventricle. (For example, pulmonary regurgitation).

## R

**Regurgitation:** Back-flow of blood through an insufficient valve. (For example, mitral valve regurgitation).

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**Risk factor:** Characteristic that has been shown to increase one's chances for developing a disease or making a disease worse.

### S

**Saphenous vein:** Large vein in the leg which can be grafted onto the heart in coronary bypass surgery to provide adequate coronary circulation.

**Sinus rhythm:** Normal heart rhythm.

**Stenosis:** Constriction of a passage. Used typically when there is a narrowing of a valve opening (for example, mitral valve stenosis) or of a blood vessel.

**Stent:** A stainless steel device that helps hold any artery open. It is placed by a balloon catheter inflated in the artery.

**Stress test:** A stress test is an electrocardiogram recorded before, during, and after exercise. It shows how the heart muscle reacts to the increased heart rates and blood pressures included by exercise.

**Stress:** Physical, mental or behavioural response of the body to demands made on it by a stressor. This response is based on individual interpretation. Forces from the outside world impinging on the individual. Stress releases powerful neurochemicals and hormones that prepare the individual for action. If no is taken, the stress response can lead to health problems such as depression, high blood pressure or heart attack.

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**Stroke:** The sudden death of some brain cells due to a lack of oxygen when the blood flow to the brain is impaired by blockage (ischemic stroke) or when a blood vessel breaks and bleeds into the brain (haemorrhagic stroke). A medical emergency, stroke is also called a cerebrovascular accident (CVA). Stroke symptoms depend on the area of brain affected. The most common symptom is weakness or paralysis of one side of the body, with partial or complete loss of voluntary movement or in a leg or arm; other symptoms can include speech problems, confusion, weak facial muscles, numbness or tingling. A stroke involving the base of brain can affect balance, vision, swallowing and breathing, and may even cause unconsciousness.

**Syncope:** A brief loss of consciousness caused by temporary lack of oxygenated blood.

**Systole:** Period of contraction of the heart during which blood is ejected from the ventricles.

**Systolic pressure:** The maximum blood pressure, measured after the heart contracts. Usually the first number recorded in a blood pressure reading.

## T

**Tachycardia:** Fast heart rate. Generally, any rate above 100 beats per minute.

**Thrombosis:** Formation of a blood clot (thrombus) inside a cavity of the heart or blood vessel.

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**Trans fat:** An unhealthy substance, also known as trans fatty acid, made through the chemical process of hydrogenation of oils. Hydrogenation solidifies liquid oils and the shelf life and the flavour stability of oils and foods that contain them. Trans fats drive up levels of LDL ("bad") cholesterol, which increases risk of heart attack and stroke.

**Transient ischemic attack (TIA):** A neurological event with the signs and symptoms of a stroke, but which go away within a short period of time. Also known as a mini-stroke, a TIA is due to a lack of adequate blood and oxygen (ischemia) to the brain. This is often caused by the narrowing (or, less often, ulceration) of the carotid (the major arteries in the neck that supply blood to the brain). TIAs typically last from 2 to 30 minutes and can produce problems with vision, weakness or trouble speaking. If not treated, a TIA carries a high risk of having a major stroke in the near future; people who have a TIA have a 25% risk of stroke or other serious complication within 90 days.

**Tricuspid valve:** Valve that separates the right atrium and the right ventricle and prevents back-flow from the ventricle to the atrium. It is composed of three leaf-like parts.

**Triglyceride:** The major form of fat. A triglyceride consists of three molecules of fatty acid combined with a molecule of the alcohol glycerol. Triglycerides serve as the building blocks of many types of lipids (fats). Triglycerides come from foods and are also produced by the body. Triglyceride levels do not provide clinically information about the risk of coronary heart disease (CHD) beyond that provided by levels of HDL and LDL cholesterol.

## V

**Vascular:** Pertaining to blood vessels.



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**Vein:** One of the blood vessels which returns blood from various parts of the body towards the heart. Usually carries deoxygenated blood.

**Ventricle:** One of the two main pumping chambers of the heart. The left ventricle pumps blood to the body, while the right ventricle pumps blood to the lungs.

## How you can help?

This is a living document and as such it needs to be fed with new and updated information. If I have missed anything out that you or others may find useful, then please get in touch.

More importantly if anything is incorrect, I apologise it would be fabulous if you would get in touch to correct me, and I will put it right.

Drop me an email to [sallie@myheartandmind.co.uk](mailto:sallie@myheartandmind.co.uk) and I will make updates.

## Disclaimer

**In brief:** If you have concerns about your health or your heart then get expert medical advice immediately. My work is not intended to replace conventional medicine, it is complementary. Results may vary from person to person. Please make sure you click the link to read my full and complete [Disclaimer Statement](#).



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## Here's how we can keep talking

[sallie@myheartandmind.co.uk](mailto:sallie@myheartandmind.co.uk)

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