



# Heart Disease Glossary of Terms

**Ablation:** The removal or destruction of tissue.

**Advance Directive (living will):** A document that informs your family and health care providers of your wishes for extended medical treatment in times of emergency.

**Aerobic Exercise:** Exercise which can improve your functional ability and, in some cases, reduce symptoms of heart disease. It is repetitive in nature and involves the large muscle groups. Examples are walking, swimming, and cycling.

**Ambulatory EKG Monitors:** Small portable electrocardiogram machines that are able to record the heart's rhythm. Each type of monitor has unique features related to length of recording time and ability to send the recordings over the phone. They include: Holter Monitor, Loop Recorder, and Transtelephonic transmitter.

**Anemia:** A condition characterized by a deficiency of red blood cells. Anemia reduces the amount of oxygen available to the body.

CONTINUE READING BELOW

**Aneurysm:** A sac formed by the bulging of a blood vessel wall or heart tissue. When aneurysms grow too large, they can rupture and the bleeding can be life threatening. Aneurysms that have grown too large should be removed.

**Angina (also called angina pectoris):** Discomfort or pressure, usually in the chest, caused by a temporarily inadequate blood supply to the heart muscle. Discomfort may also be felt in the neck, jaw, or arms.

**Angiogenesis:** The spontaneous or drug-induced growth of new blood vessels. The growth of these vessels may help to alleviate coronary artery disease by rerouting blood flow around clogged arteries.

**Angioplasty:** An invasive procedure, during which a specially designed balloon catheter with a small balloon tip is guided to the point of narrowing in the artery. Once in place, the balloon is inflated to compress the fatty matter into the artery wall and stretch the artery open to increase blood flow to the heart.

**Angiotensin-Converting Enzyme Inhibitors (ACE inhibitors):** A group of drugs used to treat high blood pressure and heart failure. ACE inhibitors block a specific enzyme (ACE or angiotensin-converting enzyme) that retains salt in the kidney and can cause heart and blood pressure problems. ACE inhibitors have been shown to decrease the risk of dying from a heart attack.

**Angiotensin II Receptor Blockers (ARBs):** A group of drugs used to treat high blood pressure and heart failure.

**Annulus:** A ring of tough fibrous tissue that is attached to and supports the leaflets of the heart valve.

**Anomalous Coronary Artery:** The normal anatomy for the coronary arteries involves their origin from the aorta at each of two separate sites. Sometimes people can be born with the origin of a coronary artery that comes from an abnormal site and this can lead to problems of coronary ischemia which can subsequently lead to a heart attack or abnormal heart rhythm. Not all coronary anomalies need surgery, but some do and the specific operation depends on which of the many varieties of coronary anomalies is present.

**Antiarrhythmic:** A drug that is used to treat abnormal heart rhythms.

**Anticoagulant ("blood thinner "):** A medication that prevents blood from clotting; used for people at risk for stroke or blood clots.

**Antihypertensive:** A medication used to treat high blood pressure .

**Antioxidant:** Vitamins (A, C, and E) that may help to limit the cellular damage caused by free radicals (which are released when tissue is being injured, such as during the progression of heart disease.) However, no studies have shown that taking antioxidants in supplement form prevent heart attacks or other forms of heart disease .

**Aorta:** Large artery leaving the heart. All blood pumped out of the left ventricle travels through the aorta on its way to other parts of the body.

**Aortic Insufficiency:** Aortic insufficiency refers specifically to the aortic valve, which is the valve the blood passes through as it leaves the heart and enters the aorta. When blood leaks back through the valve it is known as aortic insufficiency. Small amounts of aortic insufficiency may be inconsequential, but larger amounts may require repair or replacement of the aortic valve.

**Aortic Valve:** The aortic valve is the last valve through which the blood passes before it enters the aorta or main blood vessel of the body. The valve's role is to prevent blood from leaking back into the left ventricle from the aorta after it has been ejected from the heart.

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**Aortic Valve Replacement:** When the aortic valve is diseased, it can become either ~~stenotic (too narrow) or insufficient (leaky). In such cases, the aortic valve may need to be~~

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**Aortic Valve Homograft:** When replacement of an aortic valve is necessary, it is possible to replace the valve with another human valve known as an aortic valve homograft. This operation involves cardiopulmonary bypass.

**Aortic Valve Repair:** The aortic valve is the last valve in the heart through which the blood travels prior to circulating in the body. When this valve is leaking or too tight, a surgeon may be able to repair the valve rather than replace it.

**Arrhythmia:** An irregular heartbeat.

**Arterial Grafting:** In patients who require coronary artery bypass graft surgery, it is sometimes desirable to use arteries from other parts of the body to provide the bypass grafts. This is known as arterial grafting.

**Arteries:** Blood vessels that carry blood away from the heart.

**Atherectomy (Directional Coronary Atherectomy or DCA):** This procedure is used to clean out clogged heart arteries. A DCA catheter has a hollow cylinder on the tip with an open window on one side and a balloon on the other. When the catheter is inserted into the narrowed artery, the balloon is inflated, pushing the window against the fatty matter clogging the vessel. A blade (cutter) within the cylinder rotates and shaves off any fat, which protruded into the window. The shavings are caught in a chamber within the catheter and removed. This process is repeated as needed to allow better blood flow.

**Atherosclerosis ("hardening of the arteries"):** The process whereby abnormal deposits of lipids, cholesterol, and plaque build up on the walls of the coronary arteries, leading to coronary artery disease and other cardiovascular problems.

**Atria:** The upper chambers of the heart. (Atrium refers to one chamber of the heart).

**Atrial Fibrillation (AF):** Atrial fibrillation is an irregular heart rhythm in which many impulses begin and spread through the atria. The resulting rhythm is disorganized, rapid, and irregular and the atria are not able to fully empty their contents into the ventricles.

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**Atrial Flutter:** Atrial flutter is a regular heart rhythm in which many impulses begin and spread through the atria. The resulting rhythm is organized, but so rapid that the atria are not able to fully empty their contents into the ventricles.

**Atrial Myxoma:** A myxoma is a tumor of the heart. It resides in the atrial chamber and can cause symptoms when its growth produces a tumor so large it obstructs blood flow through the heart chambers or if a part of it breaks off and causes a stroke or blockage of an artery.

should be corrected and may require heart surgery. There are now catheters that can be used to close an atrial septal defect without open heart surgery.

**Atrioventricular (AV) Node:** A group of special cells located near the center of the heart that helps to regulate the heart rhythm. Here, the electrical current slows for a moment before going on to the ventricles.

**Atrium:** The top chamber of the heart. There are two atria -- the left and the right, divided by a muscular wall, called the septum. The atrium contracts before the ventricle to allow optimal filling of the ventricle.

**Balloon Angioplasty (Percutaneous Transluminal Coronary Angioplasty or PTCA):** A procedure used to clean out clogged heart arteries. A specially designed balloon catheter with a small balloon tip is guided to the point of narrowing in the artery. Once in place, the balloon is inflated to compress the fatty matter into the artery wall and stretch the artery open to increase blood flow to the heart.

**Batista Procedure:** During this surgical procedure, to treat heart failure, the surgeon cuts out a piece of the patient's enlarged left ventricular muscle. The intention is to reduce the size of the left ventricular cavity, improve left ventricular function and reverse congestive heart failure. Long-term results found the procedure unsuccessful, however, the procedure has led to better surgical techniques to treat those with heart failure (see infarct exclusion surgery).

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**Beta-Blocker:** A drug that slows heart rate, lowers blood pressure, controls angina, and protects patients with prior heart attacks from future events.

**Bicuspid Valve:** A valve with two leaflets (cusps) instead of three.

**Biopsy:** Removal and analysis of a tissue sample.

**Blood Pressure:** The force exerted in the arteries by blood as it circulates. It is divided into systolic (when the heart contracts) and diastolic (when the heart is filling) pressures.

**Body Mass Index (BMI):** A number that reflects body weight adjusted for height. Numbers between 18.5-25 are normal, 25-30 is overweight, and greater than 30 is obese.

**Bradycardia:** A slow heart rate.

**Bundle Branch:** Part of the electrical pathway of the heart that delivers electrical impulses to the ventricles of the heart. Normally, electrical impulses start in the sinoatrial or SA node and travel to the atrioventricular or AV node. Then it goes to the bundle of His. The bundle divides or branches into a right bundle and the left bundle. The bundles take

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there is a block in one of the branches, it's called a bundle branch block. A bundle branch block causes the electrical impulse to travel more slowly through the blocked bundle. As a result, one ventricle contracts just after the other ventricle.

**Calcium-Channel Blocker:** A drug that reduces spasm of the blood vessels, lowers blood pressure, and controls angina; acts by selectively blocking the uptake of calcium by the cells.

**Capillaries:** Tiny blood vessels connecting arteries to veins. These blood vessels carry oxygen and nutrients to individual cells throughout the body.

**Carbohydrate:** An organic compound, found in food substances such as sugar, grain products, fruits, and vegetables, which provides fuel for the body.

**Carbon Dioxide:** A gas created during metabolism, when the cells use oxygen to burn fat and release energy. The lungs release carbon dioxide when you breathe out.

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**Cardiac Arrest:** When the heart stops beating suddenly and respiration (breathing) and other body functions stop as a result.

**Cardiac Catheterization:** A heart procedure used to diagnose heart disease . During the procedure, a catheter (inserted into an artery in your arm or leg) is guided to your heart, contrast dye is injected, and X-rays of the coronary arteries, heart chambers, and valves are taken.

**Cardiac Output:** The amount of blood pumped by the heart each minute.

**Cardiac Rehabilitation:** A structured program of education and activity guided toward lifestyle modification, increasing functional capabilities, and peer support.

**Cardiologist:** Doctor specializing in the diagnosis and treatment of heart disease.

**Cardiomyopathy:** An abnormal heart condition in which the heart is dilated (poor pumping power), restrictive (impaired ability of the heart to fill), constricted (kept from filling due to external compression), and/or hypertrophic (enlarged heart).

**Cardiopulmonary Resuscitation (CPR):** A technique designed to temporarily circulate oxygenated blood through the body of a person whose heart has stopped. It involves assessing the airway; if necessary breathing for the person; determining if the person is without a pulse; and if necessary, applying pressure to the chest to circulate blood.

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

**Cardioversion:** A procedure used to convert an irregular heart rhythm to a normal heart

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**Chest X-ray (CXR, chest film):** A very small amount of radiation is used to produce an image of the structures of the chest (heart, lungs, and bones) on film.

**Cholesterol** : A fatty substance made by the body and found in some foods. Cholesterol is deposited in the arteries in coronary artery disease.

**Chordae Tendinae:** Thin chords that provide support to the tricuspid and mitral valves of the heart helping them to open and shut properly.

**Clubbing:** An abnormality where the ends of the fingers and toes enlarge and the nails curve; often it is related to an inadequate oxygen-rich blood supply, however it can be hereditary and completely normal. Often seen with congenital heart defects, but also seen in other conditions, such as emphysema or other lung diseases.

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**Coarctation of the Aorta:** A severe narrowing of the aorta, causing a decrease in blood flow to the lower part of the body. This narrowing is a congenital defect and can be corrected with surgery or balloon angioplasty.

**Collateral Blood Vessels:** Small capillary-like branches of an artery that form over time in response to narrowed coronary arteries. The collaterals "bypass" the area of narrowing and help to restore blood flow. However, during times of increased exertion, the collaterals may not be able to supply enough oxygen-rich blood to the heart muscle.

**Commissurotomy:** A surgical procedure that helps to repair the damage caused by defective heart valves. In some patients, specifically those with rheumatic heart disease, this area of the heart (also called the commissures) can become scarred and the valve leaflets fail to open and allow blood to flow through easily. In this surgery, the commissures can be released or reopened.

**Complex Carbohydrates:** Starchy foods that are good sources of energy and nutrients, such as whole grain breads, rice, and pasta.

**Congenital Heart Defects:** Heart defects present at birth.

**Congestive Heart Failure (CHF or heart failure):** A condition where the heart muscle weakens and can't pump blood efficiently throughout the body.

**Constrictive Pericarditis:** The pericardium is the sac around the heart. In people with constrictive pericarditis, this sac becomes inflamed and scarred leading to shrinkage of the pericardium. This can prevent the heart from filling to its full extent.

**Coronary Arteries:** Network of blood vessels that branch off the aorta to supply the heart muscle with oxygen-rich blood. There are two main coronary arteries: the right and the

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**Coronary Artery Disease (atherosclerosis ):** A build-up of fatty material in the wall of the coronary artery that causes significant narrowing of the artery.

**Coronary Spasm:** Repeated contractions and dilations of the coronary arteries, causing a lack of blood supply to the heart muscle. It may occur at rest and can even occur in people without significant coronary artery disease.

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**Cyanosis:** A blue tint to the skin, indicating the body is not receiving enough oxygen-rich blood.

**Defibrillator:** A machine that is used to administer an electric shock to the heart in order to re-establish normal heart rhythm.

**Diabetes:** A condition in which the body does not produce or respond to insulin (a hormone produced by your body, which allows blood sugar or glucose to move into your body's cells for energy).

**Diastolic Pressure:** The pressure of the blood in the arteries when the heart is filling. It is the lower of two blood pressure measurements (for example, when the pressure reading is 120/80, 80 is the diastolic pressure).

**Dilated Cardiomyopathy:** A disease of the myocardium (heart muscle) that causes the heart cavity to become stretched and enlarged, and the pumping capacity of the heart is reduced.

**Dilatation:** The increase in size of a blood vessel.

**Dipyridamole Stress Test:** If you are unable to exercise on a treadmill or stationary bicycle for a stress test, a medication, called dipyridamole (Persantine) is used instead of exercise to test the heart's blood flow.

**Diuretic:** A drug that enables the kidneys to rid the body of excess fluid. May be referred to as a "water pill."

**Dobutamine Stress Echocardiogram (Dobutamine echo):** A procedure that involves infusing a medication (dobutamine) through an intravenous (IV) line while you are closely monitored. This drug stimulates your heart allowing evaluation of heart and valve function at rest and with exertion, when you are unable to exercise on a treadmill or stationary cycle.

Echocardiography is an imaging procedure that creates a moving picture of the heart's movement, valves, and chambers using high-frequency sound waves that come from a hand held wand placed on your chest.

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**Echocardiogram (echo):** An imaging procedure that creates a moving picture of the heart's valves and chambers using high-frequency sound waves that come from a hand held wand placed on your chest or passed down your throat. Echo is often combined with Doppler ultrasound and color Doppler to evaluate blood flow across the heart's valves. Doppler senses the speed of sound and can pick up abnormal leakage or blockage of valves.

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**ECMO (Extra corporeal Membrane Oxygenation):** In people who are unable to provide oxygen for their own blood or enough blood circulation, they can be put on life support known as extra corporeal membrane oxygenation. The blood is withdrawn from a large vein in the body and passes through a pumping mechanism, and then through a device that puts oxygen into the blood and removes carbon dioxide from the blood. The blood is then returned to the body and circulated in such a way as to sustain life.

**Edema:** Swelling; the accumulation of fluids, usually in the hands, feet, or abdomen.

**Ejection Fraction (EF):** The amount of blood pumped out of a ventricle during each heartbeat. The ejection fraction evaluates how well the heart is pumping and is often used to evaluate the degree of heart failure. Normal ejection fractions range from 55% to 65%.

**Electrocardiogram (ECG, EKG):** The EKG records on graph paper the electrical activity of the heart using small electrode patches attached to the skin.

**Electrophysiology (EP) Study:** An EP study is a test that evaluates the electrical activity within your heart. This test is used to help your doctor find out the cause of your rhythm disturbance and the best treatment for you. During the test, your doctor may safely reproduce your abnormal heart rhythm and then give you medications or other treatments to see which one controls it best.

**Embolus:** A blood clot that moves through the blood stream.

**Endocarditis:** An infection of the heart or its valves. It is usually caused by bacteria and is more likely to occur in people who have heart valve defects or have had heart surgery to treat valve disease.

**Enhanced External Counterpulsation (EECP):** A treatment for those with symptomatic coronary artery disease (also called refractory angina), not eligible for standard treatments of revascularization (such as bypass surgery). During EECP, cuffs wrapped around the calves, thighs, and buttocks are inflated and deflated, gently but firmly compressing the blood vessels in the lower limbs, increasing blood flow to the heart. EECP may stimulate the openings or formation of collateral vessels to create a "natural bypass" around narrowed or blocked arteries.

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**Event Monitor (Loop recorder):** A small recorder (monitor) is attached to electrodes on your chest. It is worn continuously for a period of time. If symptoms are felt, an event button can be depressed, and the heart's rhythm is recorded and saved in the recorder. The rhythm can be saved and transmitted over the phone line.

**Exercise Stress Echocardiogram (Stress Echo):** A procedure that combines echocardiography with exercise to evaluate the heart's function at rest and with exertion. Echocardiography is an imaging procedure that creates a picture of the heart's movement, valves, and chambers using high-frequency sound waves that come from a hand held wand placed on your chest. Echo is often combined with Doppler ultrasound and color Doppler to evaluate blood flow across the heart's valves.

**Exercise Stress Test:** A test used to provide information about how the heart responds to stress. It usually involves walking on a treadmill or pedaling a stationary bike at increasing levels of difficulty, while the electrocardiogram, heart rate, and blood pressure are monitored. If you are not able to do activity, medications may be used to "stress" the heart.

**Fat:** A high-energy fuel source.

**Fiber:** An indigestible carbohydrate found in foods such as fruits and vegetables ; aids in digestion.

**Fibrillation:** Abnormally rapid, inefficient contractions of the atria or ventricles. Ventricular fibrillation is life-threatening.

**Flutter:** One form of rapid heartbeat.

**Free Radical:** A destructive fragment of oxygen produced as a by-product. Increased free radicals are thought to trigger atherosclerosis.

**Glucose:** Blood sugar .

**Head Upright Tilt Test (TTT, tilt table test, head-up tilt test):** A test used to determine the cause of fainting spells. The test involves being tilted at different angles for a period of time. Heart rhythm, blood pressure, and other measurements are evaluated with changes in position.

**Heart Attack (myocardial infarction):** Permanent damage to the heart muscle caused by a lack of blood supply to the heart for an extended time period. The severity of damage varies from normal to mild to severe.

**Heart Block:** An arrhythmia. The electrical current is slowed between the atria and ventricles. In more severe cases, conduction is blocked completely and the atria and ventricles beat independently.

**Heart Failure (congestive heart failure, CHF):** A condition where the heart muscle weakens and cannot pump blood efficiently. Fluid accumulates in the lungs, hands, ankles, or other parts of the body.

**Heart Lung Bypass Machine:** A machine that oxygenates the blood and circulates it throughout the body during surgery.

**Heart Surgery:** Heart surgery is any surgery that involves the heart or heart valves.

**Heart Valves:** There are four valves in the heart: the tricuspid and the mitral valve, which lie between the atria and ventricles, and the pulmonic and aortic valves, which lie between the ventricles and the blood vessels leaving the heart. The heart valves help to maintain one-way blood flow through the heart.

**Hemoglobin:** A protein in red blood cells that transports oxygen and carbon dioxide and gives blood its red color.

**Hibernating Myocardium:** After a heart attack, some areas of heart muscle do not pump as they should. Some areas will have permanent damage. Other areas are able to return to their normal function if blood flow is returned to that area by medications or a procedure. Hibernating myocardium is heart muscle that is "resting" and may possibly return to normal function.

**High-Density Lipoprotein (HDL):** Lipoprotein particle in the blood. HDL is known as "good" cholesterol because it deposits cholesterol in the liver, where it is excreted by the body. High HDL is thought to protect against coronary artery disease.

**Holter Monitor:** A small recorder (monitor) is attached to electrodes on your chest. It records the heart's rhythm continuously for 24 hours. After the monitor is removed the heart's beats are counted and analyzed by a technician with the aid of a computer. Your doctor can learn if you are having irregular heartbeats, what kind they are, how long they last, as well as what may cause them.

**Homocysteine:** An amino acid. High levels of homocysteine are a risk factor for coronary artery disease. However, treatment of high homocysteine levels have not been shown to lower the risk of heart disease.

**Hydrogenation:** A process used to harden unsaturated liquid vegetable oils into saturated fats.

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**Hyperlipidemia:** High levels of fat in the blood, such as cholesterol and triglycerides.

**Hypertension:** High blood pressure .

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**Hypertrophy:** An abnormal enlargement of an organ or thickening of its tissue. Ventricular hypertrophy is the name given to a thickened ventricle.

**Hypotension:** Low blood pressure.

**Idiopathic:** When the cause of a disease or process is not known.

**IHSS:** Idiopathic Hypertrophic Subaortic Stenosis is another term used synonymously with hypertrophic obstructive cardiomyopathy (HOCM). It is an inherited disease of the heart muscle that causes thickening of the heart muscle and other changes to the heart that significantly impair its function. Although the disease is rare, IHSS is the single most common cause of sudden cardiac arrest in seemingly healthy young people.

**Immunosuppressants:** Drugs that are used to keep the body's immune system from rejecting a transplanted organ, such as the heart, or to slow down the destructive processes of autoimmune disease (where the body's immune system goes awry and kills normal cells and tissue).

**Implantable Cardioverter Defibrillator (ICD):** A surgically inserted electronic device that constantly monitors your heart rate and rhythm. When it detects a very fast, abnormal heart rhythm, it delivers electrical energy to the heart muscle to help the heart to beat in a normal rhythm again.

**Infarction:** Tissue death due to lack of oxygen-rich blood.

**Inotrope Medication:** A drug used to strengthen the heart's contractions and improve blood circulation.

**Insulin:** A hormone produced by the pancreas that helps the body digest sugar.

**Intra-aortic Balloon Pump Assist Device (IABP):** A machine that can help the pumping function of the heart. It is usually inserted through an artery in the groin area and threaded backwards into the descending thoracic aorta in the chest. In this location the balloon inflates and deflates in synchrony with the heart in order to aid the blood pumping function of the heart in people with cardiac disease.

**Intracardiac Tumor:** An intracardiac tumor can be any tumor of the heart, either malignant or benign. The most common tumor of the heart is a benign atrial myxoma.

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**Intravascular:** Inside a blood vessel.

**Intravascular Ultrasound (IVUS):** An invasive procedure, performed along with cardiac catheterization. A miniature sound probe (transducer) on the tip of a catheter is threaded

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**Ischemia:** Condition in which there is not enough oxygen-rich blood supplied to the heart muscle to meet the heart's needs.

**Lead Extraction:** A lead is a special wire that delivers energy from a pacemaker or implantable cardioverter defibrillator (ICD) to the heart muscle. A lead extraction is the removal of one or more leads from inside the heart.

**Leaflets:** Thin pieces of tissue or flaps that make up a heart valve.

**Left Ventricular Assist Device (LVAD):** A mechanical device placed in people with end-stage heart disease whose hearts do not pump a sufficient amount of blood to keep the body healthy (heart failure). The device aids in the pumping function of the blood, usually until the patient has a heart transplant.

**Lipid:** Fat circulating in the blood.

**Lipoprotein:** A combination of fat and protein that transports lipids (fats) in the blood.

**Loop Recorder (Event monitor):** See Event monitor (above)

**Low-Density Lipoprotein (LDL):** A lipoprotein particle in the blood responsible for depositing cholesterol into the lining of the artery. Known as "bad" cholesterol because high LDL is linked to coronary artery disease.

**Magnetic Resonance Imaging (MRI):** A test that produces high-quality still and moving pictures of the heart and large blood vessels. MRI uses large magnets and radio-frequency waves to produce pictures of the body's internal structures. No X-ray exposure is involved. MRI acquires information about the heart as it is beating, creating moving images of the heart throughout its pumping cycle.

**Mammary Artery (also called thoracic artery):** Artery located in the chest wall and used for coronary artery bypass surgery. Most commonly, it is kept intact at its origin and sewn to the coronary artery beyond the site of blockage. If the surgeon removes the mammary artery from its origin to use as a bypass graft, it is then called a "free" mammary artery bypass graft.

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**Maze Procedure:** A surgical treatment for chronic atrial fibrillation . The surgeon makes multiple incisions in the atrium to form a path or maze to help block abnormal impulses from reaching the atrioventricular node. After this is done the atrium is sewn back together and a normal rhythm is more easily maintained.

**Mechanical Valve:** In people who require heart valve replacement surgery, it is sometimes desirable to implant a mechanical valve. A mechanical valve is made of

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**Metabolic Exercise Stress Test (also called metabolic stress test):** A test used to measure the performance of the heart and lungs while they are under physical stress. The test involves walking on a treadmill or pedaling a stationary bike at increasing levels of difficulty, while being closely monitored.

**Minimally Invasive Heart Surgery:** Minimally invasive heart surgery is a technique developed to reduce the trauma associated with open heart surgery. The smaller incision that is used may allow the patient to heal more rapidly and decrease the time to recovery and full activity. It also helps to reduce the pain and discomfort associated with heart surgery.

**Mitral Insufficiency:** A condition where blood in the left ventricle leaks back through the mitral valve into the left atrium and can back up into the lungs. The mitral valve normally opens to allow blood to flow into the left ventricle and then closes, preventing blood from backing up into the atrium during the ventricle's contraction.

**Mitral Stenosis:** A condition where the mitral valve becomes narrowed or stenotic preventing the easy flow of blood from the left atrium into the left ventricle. This is a consequence of having rheumatic fever.

**Mitral Valve:** The valve that lies between the left atrium and left ventricle (main pumping chamber of the heart). This valve allows blood to flow from the left atrium into the left ventricle and then prevents the back flow of blood into the left atrium during ventricular contraction.

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**Morbidity Rate:** The percentage of people who have complications from a medical condition or after a procedure or treatment.

**Mortality Rate:** The percentage of deaths associated with a disease or medical treatment.

**Multigated Acquisition Scan (MUGA scan):** A nuclear scan that evaluates the pumping function of the ventricles.

**Murmur:** Turbulent blood flow across a heart valve creating a "swishing" sound heard by a stethoscope.

**Myocardial Biopsy (Cardiac biopsy):** An invasive procedure to obtain a small piece of heart muscle tissue that is sent to a laboratory for analysis.

**Myocardial Infarction (Heart attack):** See heart attack (above).

**Myocarditis:** Inflammation of the myocardium (heart muscle).

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**Myomectomy:** A surgical procedure to remove abnormally thickened heart muscle. Used to treat people with idiopathic hypertrophic subaortic stenosis (IHSS) or HOCM thereby relieving the obstruction to blood flow in the left ventricle during contraction.

**Nitroglycerin:** A medication used to relax and dilate the blood vessels (vasodilator), improving blood flow. Nitroglycerin works very quickly and is the most common vasodilator used to treat angina.

**Nuclear Scan:** Nuclear imaging is a method of producing images by detecting radiation from different parts of the body after the administration of a radioactive tracer material.

**Obesity:** Excess fat due to eating more calories than used. It is usually defined having a body mass index (BMI-see above) of 25 or higher.

**Occlusion:** Blockage.

**Off Pump Heart Surgery:** Heart surgery done without the use of the cardiopulmonary bypass machine.

**Pacemaker :** A small electronic device is implanted under the skin and sends electrical impulses to the heart muscle to maintain a suitable heart rate and to prevent slow heart rates.

**Palpitation:** A fluttering sensation in the chest that is often related to a missed heart beat or rapid heartbeat.

**Papillary Muscles:** Small muscles that are part of the inside walls of the ventricles and attach to the chordae tendineae.

**Patency Rate:** The likelihood that a vessel will remain open.

**Pericardiocentesis (pericardial tap):** An invasive procedure that involves using a needle and catheter to remove fluid from the sac around the heart. The fluid may then be sent to a laboratory for tests to look for signs of infection or cancer.

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**Pericardium:** The sac that surrounds the heart.

**Pericarditis:** Pericarditis is an inflammation of the pericardium. The pericardium is the sac around the heart.

**Plaque:** Deposits of fats, inflammatory cells, proteins, and calcium material along the lining of arteries seen in atherosclerosis. The plaque builds up and narrows the artery

**Platelets:** Components of blood that aid in clotting.

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**Premature Ventricular Contractions (PVCs):** An irregular heartbeat in which the lower chambers of the heart (the ventricles) beat before they are supposed to.

**Prophylaxis:** A medication or other treatment delivered to prevent of disease. One example is antibiotics given before a dental procedure to prevent an infection of the heart.

**Pulmonary Edema:** An abnormal swelling of tissue in the lungs due to fluid build-up.

**Pulmonary Hypertension:** Pulmonary hypertension is high blood pressure of the pulmonary arteries.

**Pulmonic Valve:** The valve through which the blood passes before it enters the pulmonary artery.

**Pulse Rate:** The number of heartbeats per minute. The resting pulse rate for an average adult is between 50 and 90 beats per minute.

**Radial Artery:** The radial artery is a blood vessel that carries oxygen-rich blood in the forearm. You can feel the pulse of the radial artery by feeling the inside of the wrist underneath the base of the thumb.

**Radionuclide Study (MUGA):** See MUGA above.

**Regurgitation:** Leaking or backward flow.

**Restenosis:** The closing or narrowing of an artery that was previously opened by a cardiac procedure such as angioplasty.

**Rheumatic Fever:** Rheumatic fever is caused by a streptococcus infection that can attack and inflame the heart valves, usually the mitral valve.

**Rheumatic Heart Disease:** Rheumatic fever can lead to a condition known as rheumatic heart disease. This is usually a thickening and stenosis of one or more of the heart valves and often requires surgery to repair or replace the involved valve(s).

**Rheumatic Valve Disease:** Rheumatic valve disease is a consequence of rheumatic fever. Rheumatic valve disease is a thickening and stenosis of one or more of the heart valves and often requires surgery to repair or replace the affected valve(s).

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**Right Ventricular Biopsy:** The removal of a small piece of heart tissue from your right ventricle. This tissue sample is studied under a microscope to help your doctor assess your heart muscle.



lifestyle and may be changed or controlled -- and non-modifiable risk factors -- related to aging and genetics and cannot be changed.

**Rotoblation (Percutaneous Transluminal Rotational Atherectomy or PCRA):** In this rare procedure, a special catheter, with an acorn-shaped diamond-coated tip, is guided to the point of narrowing in the coronary artery. The tip spins around at a high speed and grinds away the plaque on the artery walls. The microscopic particles are washed safely away in your blood stream and filtered out by the liver and spleen. This process is repeated as needed to allow better blood flow.

**Saphenous Vein:** Vein located in the leg(s) and used for coronary artery bypass surgery. It is surgically removed from the leg and sewn from the aorta to the coronary artery beyond the site of blockage.

**Septum:** The muscular wall separating the right and left sides of the heart.

**Sestamibi Exercise Stress Test (Sestamibi stress test, stress perfusion scan, stress Sestamibi):** A diagnostic study, which uses a small amount of radioactive tracer, injected into the body, and a special camera, which detects the radiation, released by the substance to produce a computer image of the heart. Combined with exercise, the study can help determine if there is adequate blood flow to the heart at rest, as compared with activity.

**Silent Ischemia:** Inadequate supply of oxygen-rich blood to the heart that does not cause symptoms such as chest pain.

**Sinoatrial Node (SA or sinus node):** A specialized cluster of cells in the heart that initiates the heartbeat. Known as the heart's natural pacemaker.

**Sodium (salt):** A mineral found in most of the foods we eat. The largest source of dietary sodium comes from sodium chloride or table salt. Intake of sodium tends to increase the retention of water.

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**Sphygmomanometer:** A device for measuring blood pressure.

**Stenosis:** Narrowing or restriction of a blood vessel or valve that reduces blood flow.

**Stent:** A small tube, inserted after angioplasty, that acts as a scaffold to provide support inside the coronary artery. They are usually made of metal and is permanent, but can also be made of a material that the body absorbs over time. Some stents have medicine that helps keep the artery from getting blocked again.

**Sternum (breastbone):** Bone in chest separated during open heart surgery.

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**Stroke:** A sudden loss of brain function due to decreased blood flow to an area of the brain.

**Stunned Myocardium:** If blood flow is returned to an area of heart muscle after a period of ischemia (lack of blood supply), the heart muscle may not pump normally for a period of days following the event. This is called "stunned" heart muscle or myocardium.

**Subvalvular Aortic Stenosis:** A narrowing of the flow of blood below the aortic valve in the left ventricle. It is usually caused by a membrane or thickening in the muscle in this area.

**Syncope:** Fainting.

**Systole:** The portion of the cardiac cycle in which the heart muscle contracts, forcing the blood into the main blood vessels.

**Systolic Pressure:** The pressure of the blood in the arteries when the heart pumps. It is the higher of two blood pressure measurements (for example, when the blood pressure reading is 120/80, 120 is the systolic pressure).

**Tachycardia:** Rapid heartbeat. A heart rate above 100 beats per minute.

**Thallium Exercise Stress Test (Stress thallium test, Perfusion scan):** A type of nuclear scanning technique that uses the radioactive substance thallium. A thallium stress test combines nuclear scanning with exercise on a treadmill or stationary bicycle to assess heart function and determine if there is adequate blood flow to the myocardium.

**Thrombolytic Medication (clot-buster drug):** Drug used to dissolve any clots that may be blocking blood flow in arteries and veins.

**Thrombus:** A blood clot.

**Total Cholesterol:** The total amount of cholesterol in the blood.

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**Transesophageal Echocardiogram (TEE):** An invasive imaging procedure that creates a picture of the heart's movement, valves, and chambers using high frequency sound waves that come from a small transducer passed down your throat and into your esophagus and stomach. TEE provides clear images of the heart's movement because the transducer is close to the heart and limits interference from air in the lungs. Echo is often combined with Doppler ultrasound and color Doppler to evaluate blood flow across the heart's valves.

**Transient Ischemic Attack (TIA):** A stroke-like event lasting minutes, or hours, that occurs

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**Trans-Myocardial Revascularization (TMR):** A procedure rarely used in people with severe heart disease who are not candidates for bypass surgery. In this procedure, an incision is made in the chest. The heart is exposed and small holes are drilled through the wall of the heart with a laser.

**Transtelephonic Monitor:** A small monitor is attached to electrode leads (usually on your finger or wrist). Your heart's rhythm is transmitted over the phone line with the aid of this device to your doctor's office.

**Tricuspid Valve:** The tricuspid valve is the valve that separates the right atrium from the right ventricle and prevents blood from flowing back into the right atrium during contraction of the ventricle.

**Triglyceride** : A fat found in the blood. Most fat found in the diet and body is in the form of triglycerides .

**Unstable Angina:** This type of angina is considered an acute coronary syndrome. It may be a new symptom or a change from stable angina. It may come more often, occur at rest, or feel more severe. Although this angina can be relieved with oral medications, it is unstable and may progress to a heart attack. Usually medical treatment or a procedure is required in the near future.

**Valve:** Structures in the heart that maintain the proper direction of blood flow. There are four valves in the heart: the tricuspid and the mitral valve, which lie between the atria and ventricles and the pulmonic and aortic valves which lie between the ventricles and the blood vessels leaving the heart.

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**Valvuloplasty:** A procedure to improve valve function. Balloon valvuloplasty is when a balloon is used to at the time of cardiac catheterization to increase the area of a narrowed valve. This is normally done on the mitral and pulmonic valves

**VARIANT Angina:** A type of angina that occurs at rest most often due to coronary spasm.

**Vasodilator:** A type of medication that relaxes and dilates the blood vessels, allowing increased blood flow.

**Veins:** Blood vessels that carry blood toward the heart.

**Ventricles:** The lower pumping chambers of the heart. The heart has two ventricles -- the right and left ventricle.

**Ventricular Fibrillation:** An erratic, disorganized firing of impulses from the ventricles. The ventricles quiver and are unable to contract or pump blood to the body. This is a

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**Ventricular Rupture:** In people who suffer a significant heart attack, it is sometimes the case that the area of the muscle wall of the heart that is affected can become so weakened that it ruptures and leaks blood from the inner chamber of the heart.

**Ventricular Septal Defect:** The right and left ventricles lie next to each other in the heart. The septum is the membranous wall that separates them. A ventricular septal defect is a hole in the septum.

**Ventricular Tachycardia:** A rapid life-threatening rhythm originating from the lower chambers of the heart. The rapid rate prevents the heart from filling adequately with blood, and less blood is able to pump through the body.

**Wolff Parkinson White Syndrome (WPW):** WPW is a pathway that makes a form of supraventricular tachycardia (fast heart rate originating above the ventricles). People with WPW have more than one electrical conduction pathway in their hearts (accessory pathways.) These electrical impulses set up a short circuit causing the heart to beat rapidly and conduct impulses in both directions. The impulses travel through the extra pathway (short cut) as well as the normal AV-His-Purkinje system. The impulses can travel around the heart very quickly, in a circular pattern, causing the heart to beat unusually fast. This is called re-entry tachycardia.

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