THE HEART HEALTH WORD GUIDE

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Α

Atheroma A collection of fatty plaque. It is a common pathologic event of

atherosclerosis.

Acute Myocardial Infarction:

An acute process of prolonged myocardial ischemia of sufficient severity and duration to result in permanent damage to heart muscle; commonly known as a "heart attack". This damage occurs when part of the heart muscle is deprived of blood flow, usually as the result of a blockage that stops flow down one of the major arteries that supply the heart (coronary

artery). A scar usually forms in the heart.

Adenosine (Adenoscan[™]):

One of several drugs used stress imaging of the heart when someone cannot exercise (pharmacologic/chemical stress testing). Adenosine is a naturally occurring chemical in the body. Adenosine is given

intravenously (through an IV) and works very rapidly. Its effects disappear within seconds after the infusion is stopped. Patients sometimes feel flushed or even develop chest pain during its use but these symptoms are

usually quite mild and short-lived.

Adrenal Glands Hormone-producing (endocrine) glands that rest atop each kidney and

secrete several hormones, including adrenaline (which increases heart rate and raises blood pressure) and aldosterone (which regulates the

levels of potassium and sodium).

Adrenaline (epinephrine) Hormone produced by the adrenal glands that increases

heart rate and blood pressure by narrowing (constricting) blood

vessels. An important hormone secreted in stressful situations as part of the body's fight-or-flight response. Aldosterone Hormone secreted by

cortex or outer portion of the adrenal glands; regulates

potassium secretion and the retention of salt and water by the kidneys.

Adverse Cardiac Event: Unstable angina, myocardial infarction or death due to cardiac causes are

collectively called adverse cardiac events.

Anaphylactic Shock: A severe form of hypersensitivity reaction to the injection or ingestion of a

substance (generally food or medication) to which the person has previously been exposed. Unless treated promptly, this can result in

death or severe disability.

Anatomy: The bodily structure of a plant or an animal or of any of its parts. The

anatomy can be studied by direct examination of an organism, structure or an organ or by its examination under a microscope or indirect examination with the help of x-rays, ultrasonic waves or other imaging

modalities. See physiology.

Anemia A reduction in the normal amount of hemoglobin or the number of red

blood cells in the circulation. Anemia may be a symptom of

iron deficiency, chronic bleeding, or some other underlying disorder.

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

Aneurysm A sac or out-pouching of the walls of an artery or vein filled with blood.

Angina A pressure or an intense chest pain resulting from a reduced oxygen

supply to the heart muscle.

Angiogram

An X-ray of blood vessels or other part of the cardiovascular system.

Angiography A test to determine the severity and location of blocked arteries of any

part of the body, particularly the heart arteries.

Angioplasty Balloon technique to open the blocked arteries with balloons inserted

from outside the body

Angiotensin A blood chemical that constricts blood vessels, thereby raising blood

pressure,

Antiarrhythmics A group of drugs used to treat irregular heartbeats (arrhythmias).

Anticoagulants Drugs that suppress the blood-clotting process.

Anticonvulsants Drugs used to treat seizures.

Antihypertensives Drugs used to lower high blood pressure.

Anxiety Feelings of apprehension and uneasiness.

Aorta The largest artery in the body. It receives blood from the left ventricle of

the heart; the blood is then distributed through a branching system of

arteries to all parts of the body.

Aortic Regurgitation Failure of the aortic valve to close properly, allowing some blood to flow

back into the left ventricle with each heartbeat.

Aortic Stenosis A narrowing or stiffness of the aortic valve causing an obstruction to

blood flow; results in an increased workload for the heart.

Aortic Valve: The valve separating the left ventricle from the aorta that prevents

backflow of blood into the ventricle

Aphasia Loss of the ability to speak, usually as a result of injury or disease of the

brain.

Arrhythmia A change in the rhythm of the heart beat. The heart beat may be too

slow, too rapid, or irregular in rhythm.

Arterial Lumen

The channel of an artery through which blood flows.

Arteries Blood vessels that carry oxygenated blood away from the heart to the

body.

Arteriole: A small vessel that branches off an artery, and distributes blood to the

capillaries..

Arteriosclerosis A condition in which the walls of arteries thicken and lose elasticity; also

called "hardening of the arteries."

Arteriovenous

Malformation

A tangle of arteries and veins without the capillaries that normally

connect them

Artery: A blood vessel that carries blood away from the heart; usually carry

oxygenated (red) blood.

Artifact: An abnormal-looking test result because of extraneous factors rather than

due to a disease in the patient.

Ascites A collection of excess fluids in the abdominal cavity.

Atherectomy Technique similar to balloon angioplasty, but uses devices to remove the

blocking material from the arteries.

Atherosclerosis A form of arteriosclerosis caused by the buildup of fatty substances called

plague on the walls of the arteries, resulting in a reduction in blood flow.

Atresia The absence of a normal body passage or opening (orifice) from an

organ or other part of the body.

Atrial Fibrillation An abnormal heart rhythm in which the heart's atria contract at a fast and

irregular rate.

Atrial Septal Defects Abnormal congenital openings in the wall dividing the heart's upper

chambers.

Atrial Septum

A thin wall dividing the heart's left and right atria or upper chamber.

Atrium: The chamber of the heart that collects blood returning from the rest of the

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

and passes it to the left ventricle.

Autonomic Nervous

System

The involuntary nervous system that controls unconscious body functions such as heart rate and blood pressure.

В

Balloon Angioplasty

See angioplasty.

Balloon Pump

A device inserted from outside the body and placed in the aorta to reduce heart work load during the time of threatened heart attack.

Balloon-Tipped Catheter

A catheter with a balloon at the end that can be inflated to clear a blocked or occluded blood vessel.

Beta Blocker

A group of medications that produce a decrease in heart rate and in the oxygen needs of the heart.

Beta-Adrenergic

Receptors

Nerve receptors that act on nerve impulses that increase the heart rate, dilate blood vessels, and regulate certain metabolic functions.

Blood Pressure

The force that blood exerts on the walls of the arteries as it is pumped throughout the body. It is stated in two numbers, such as 120/80. The 120 represents the systolic pressure, which is the pressure each time the heart pumps or contracts; the 80 represents the diastolic pressure, which is the residual pressure in the vessels when the heart relaxes between beats.

Blood Volume:

The amount of blood circulating throughout the body in the vascular system. Nuclear scans can show the changes in blood volume in the heart chambers and determine the squeezing power of the heart.

Bradycardia

A type of arrhythmia where the heart beats in a slow rhythm, usually less than 60 beats per minute.

Bronchioles:

The airways for the lungs that lead from the trachea to the alveoli, the tiny structures in the lungs where gas exchange occurs.

Bruit

A murmur arising in a blood vessel caused by narrowing.

Buerger's Disease

A rare condition in which blood vessels in the legs and arms become inflamed, resulting in a narrowing of the arteries that may lead to gangrene.

C

Calcium Channel

Blockers

A group of Medication used in the treatment of angina, hypertension, and cardiac arrhythmias. They inhibiting the effect of calcium on the muscles

of arteries, thereby reducing the degree of contraction. This results in a decrease in the workload of the heart, a decrease in blood pressure, and improved circulation of blood.

Capillaries: The smallest blood vessels in the body that connect arterioles and

venules.

Carbon Dioxide An odorless, colorless gas present in the air. It is also a by-product of

metabolism. It is carried by the blood to the lungs and is then expelled

from the body through exhaling.

Cardiac Arrest Complete cessation of effective heart action, which results in death if not

treated promptly.

Cardiac Catheterization Procedure to diagnose the type and severity of heart disease by

measuring pressures inside heart chambers and using X-rays to visualize

heart chambers, and heart arteries.

Cardiac Cycle

The cycle of activities that make up a heartbeat.

Cardiac Output:

The volume of blood pumped by the left ventricle in one minute

Cardiac Rehabilitation Supervised exercise and education after heart attack, heart surgery, or

other procedures.

Cardiologist A physician specializing in the diagnosis and treatment of disorders of the

heart.

Cardiology The branch of medicine dealing with the functions of the heart and blood

vessels.

Cardiomyopathy: The general term for diseases of the heart muscle

Cardioversion

Use of an electrical shock to restore normal heart rhythm.

Carotid Arteries The principal arteries of the head and neck, each of which has two main

branches, the external carotid artery and the internal carotid artery.

Catheter: A hollow, flexible tube for insertion into a body cavity, duct, or vessel to

allow the passage of fluids or distend a passageway.

Catheterization: To perform a procedure in which a catheter is introduced into a blood

vessel or other hollow structure.

Cerebellum The region of the brain that coordinates movement and maintains posture

and balance.

Cerebrovascular Accident The sudden blockage of a blood vessel in the brain caused by an

embolus, or thrombosis, and resulting in decreased blood circulation in

the brain.

Cholesterol A fatty substance required for hormone production, cell metabolism, and

other vital processes. It is also a component of cell membranes in all animals. Cholesterol is manufactured in the body and is also consumed in the diet. High levels of blood cholesterol are a contributing factor to

coronary heart disease.

Circulatory System The system that is made up of the heart and blood vessels and is

responsible for circulating blood throughout the body.

Circumflex One of the three major coronary arteries.

Clogged Arteries Another term for coronary artery disease in which arteries supplying

blood to the heart muscle are partially or completely blocked by collections of cholesterol and abnormal blood cells in the artery walls.

the upper body, resulting in a reduced blood supply to the lower body and legs. Blood pressure is increased in the upper portion of the body and decreased in the lower portion. Also referred to as a ortic coarctation:

Collateral Circulation Blood vessels that sometimes gradually take over the blood circulation

when a main vessel is partially or completely blocked. They circumvent

the narrowed area.

Computerized Tomography Scan

A diagnostic technique using computers and mul-tiple X-ray images to

produce cross-sectional images of body tissue.

Congenital Heart Defects

Abnormalities of the heart existing at birth.

Congestive Heart Failure The inability of the heart to pump sufficient blood, causing an

accumulation of fluids in the lungs, abdomen, and legs.

Contrast Venography A procedure in which a contrasting medium is injected into the veins to

make them visible on X-ray film.

Coronary Artery Bypass

Graft:

Vein or artery grafted surgically to permit blood to travel from the aorta to

a branch of the coronary artery at a point past an obstruction.

Coronary Artery Disease

Diseases of the arteries that supply blood to the heart muscle.

Coronary Bypass Surgery Surgery to improve blood flow to the heart muscle in the presence of

severe coronary artery disease. The procedure creates bypass routes for

blood flow from the aorta to various areas of the heart muscle.

Coronary Stenosis: Narrowing or constriction of a coronary artery.

Coronary: Relating to the heart, or to one of the two arteries that originate in the

aorta and supply blood directly to the heart.

Cyanosis A bluish discoloration of the skin caused by an abnormally high level of

deoxygenated hemoglobin in the blood.

D

Defibrillation An electric shock administered to the heart to stabilize an irregular

heartbeat or restore a normal heartbeat after cardiac arrest.

Diastole: The period of time during the heart beating cycle in which the ventricles

relax and fill with blood.

Diastolic The lower of the two numbers recorded when a person's blood pressure

is taken. It represents the arterial pressure when the heart's

pumping chambers are relaxed between beats and refilling with blood.

Dietitian A health professional trained in the field of dietetics, the science dealing

with nutrition and health.

Digitalis A drug derived from the foxglove plant and used in the treatment of heart

failure and abnormal heart rhythms. Digitalis works by strengthening the pumping action of the heart, thereby improving blood circulation, or by slowing down some of the electrical impulses from the atria to the

ventricles.

Dilatation: The condition of being abnormally dilated or enlarged.

Dilated Cardiomyopathy A disorder in which muscle cells in the walls of the heart do not function

normally; the walls enlarge and dilate, and heart failure develops.

Dipyridamole: An agent for pharmacological (or chemical) stress testing. This agent

dilates blood vessels in the heart, which may be used to demonstrate regional differences in blood flow caused by blocked coronary arteries. For example, blood flow down a normal artery may increase to several times the normal flow after dipyridamole, while it may not increase at all if the artery has a significant blockage (stenosis). In this way, pictures that depict the amount of blood flow may show regional differences and

suggest significant coronary artery blockages.

Dissecting Aneurysm A condition in which blood is forced through a fissure or tear in an artery's

inner wall and remains between the layers of its lining, causing the vessel

to bulge.

Diuretics Medications used to treat fluid retention by increasing the kidney's output

of urine and the excretion of sodium from the body.

Dobutamine: An agent that produces metabolic changes similar to exercise - increase

in heart rate and cardiac output. In this manner, it stresses the heart and

may demonstrate limitations in blood flow during stress.

Dysfunction: Altered or impaired functioning of an organ, such as the heart.

Dyspnea Shortness of breath or difficulty breathing.

Ε

Echo: Or echocardiogram, a test which uses high-frequency sound waves to

image the heart and surrounding tissues

Echocardiography: The process of using high-frequency sound waves to image the heart and

surrounding tissues in order to diagnose and assess the severity of heart

defects or disease.

Eclampsia A rare disorder in pregnancy characterized by seizures, coma, and

sometimes death. It is marked by hypertension, the excretion of protein

in the urine, and swelling.

Edema A swelling of parts of the body because of fluid retention.

Ejection Fraction: Measure of cardiac function; the percent of the ventricular blood volume

that is ejected in one cardiac contraction. This tells the severity of dysfunction of the heart. Typically, normal ejection fraction is 50% or

more. Abbreviated as ef.

Electrocardiogram (ECG or EKG) A visual record of the heart's electrical activity.

Electrophysiology Study A test utilized to find out from where the cardiac arrhythmia originates

within the heart and what may be done to control or cure it. It requires insertion through a vein in the groin of the diagnostic catheters in the

heart and is performed under local anesthesia.

Embolism A clot or substance carried in the bloodstream from one site to another,

causing the blockage of an artery.

Endarterectomy A surgical procedure to remove the interior lining of an artery that has

been narrowed by fatty deposits.

Endocarditis Inflammation of the interior lining of the heart and heart valves;

generally occurs because of bacterial infection or rheumatic fever.

Endocardium

The interior lining of the heart.

Epinephrine

A hormone produced by the adrenal glands. It is secreted in stressful situations, dilates blood vessels and increases heart rate. Also called

adrenaline.

Estrogen

The female sex hormone produced by the ovaries. The ovaries cease to produce estrogen after menopause, and this lack of estrogen is believed to make older women more vulnerable to heart disease.

Exercise Stress Test

An electrocardiogram that is done while a person exercises, usually on a treadmill (often called a treadmill test) or a stationary bicycle. Fibrin A stringy protein that is instrumental in blood clotting.

Exercise Tolerance Testing:

A type of stress test, in which the patient exercises on a treadmill, bicycle, or other equipment while heart activity is monitored by an ECG.

Expressivity: The Range Of Phenotypic Variation That Is Present. For Example, Disease Symptoms Can Be Mild To Severe In Form.

FDG

(Fluorodeoxyglucose):

Fluorine-18 labeled deoxyglucose, a radiotracer used for studying glucose metabolism in various organs. Heart glucose metabolism is altered in some heart conditions, and images with a PET camera can show this. These techniques can be important in the assessment of viability of the heart muscle.

Fibrinogen

A component of blood that is necessary for clotting. It is converted by enzymes in the blood into fibrin.

Fluoroscope

An X-ray device that helps to visualize moving images of internal organs such as the heart.

Fontan Operation

A surgical procedure for certain types of congenital heart disease, in which blood from the atrium is shunted through a conduit to

the pulmonary artery.

Foramen Ovale

An opening between the two atria that normally closes after birth. In individual cases, it may remain open and/or be one site of an atrial septal defect.

Friedreich's Ataxia

A rare inherited genetic disease in which the nerve fibers break down, causing a loss of coordination and balance.

Fusiform Aneurysm A weakening of an area of an artery that goes around its circumference.

Blood pools there, causing a bulge that tapers at each end.

G

Gamma Camera: A specialized type of imaging equipment that can obtain images of the

heart and other organs after injection of a radiotracer. By detecting the gamma rays emitted by radioisotopes, these cameras can provide information which can be converted into pictures of the heart and other

organs by highly sophisticated computers.

Gamma Globulin

A circulatory protein containing antibodies.

Gated SPECT: A technique for obtaining three-dimensional pictures of the heart after

injection of a radiotracer so the heart can be seen contracting and

relaxing.

Н

Heart Attack Caused by sudden blockage of a heart artery with blood clot leading to

progressive muscle injury over the next 6-12 hours.

Heart Failure The result of weakening of heart muscle from one of many causes which

results in inadequate supply of blood to the body and often build-up of

fluid in the lungs.

Heart Murmur Sounds heard through a stethoscope which are caused by turbulent flow

of blood across heart valves, often, but not always, representing

congenital or acquired abnormalities of the valves.

Heart Transplant Replacement of a damaged or diseased heart with a healthy heart taken

from a donor.

Hematoma A swelling in an organ or tissue con- GLOSSARY taining blood; caused

by a tear or break in a blood vessel wall.

Hemochromatosis An inherited disorder characterized by the overabsorption of iron. It can

result in liver damage, cardiac arrhythmias, and other heart disorders.

Hemoglobin: The red pigmented protein complex found in red blood cells that functions

to carry oxygen from the lungs to the tissues of the body.

Hepatomegaly Enlargement of the liver.

High-Density Lipoprotein

(HDL)

A lipid-carrying protein that transports the so-called good cholesterol in the bloodstream. HDL is responsible for carrying excess cholesterol away

from the artery walls and to the liver, where it is metabolized.

Holter Monitor A portable electrocardiographic device worn to monitor irregular heart

rhythms and other cardiac abnormalities.

Hyperglycemia Abnormally high levels of blood sugar (glucose). It occurs mostly in

patients with diabetes.

Hyperlipidemia Excessive amount of fats (lipids) in the blood.

Hyperplasia A noncancerous enlargement of an organ or a portion of an organ

because of increases in its component cells.

Hypertension Abnormally elevated blood pressure which can result in coronary artery

disease, kidney failure, strokes, or other complications if left untreated

over many years.

Hyperthyroidism A condition in which an overactive thyroid gland secretes excessive

thyroid hormones, resulting in a rapid heartbeat and other manifestations

of speeded-up metabolism.

Hypertrophic Cardiomyopathy

An abnormal increase in the thickness of the walls of the heart,

usually because of an inherited heart muscle disorder.

Hypertrophy Enlargement of muscle tissue resulting from an increased workload.

Hypoglycemia Abnormally low levels of blood sugar (glucose), often a result of an insulin

overdose in the treatment of diabetes.

Hypoperfusion: Decreased blood flow to an organ or tissue.

Hypotension: Decreased blood pressure below normal levels.

Hypothyroidism Reduced production of thyroid hormones because of a goiter or other

thyroid disorder.

Hypovolemia: Decreased blood volume below normal.

Hypoxemia: Reduction of oxygen level in the blood below normal.

Hypoxia: Reduction of oxygen level in tissues below normal.

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In Vitro: In the laboratory or in the test tube outside a living organism.

In Vivo: Within a living organism.

Inferior Vena Cava A major vein that carries deoxygenated blood from the lower part of the

body back to the heart.

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.

Intermittent Claudication Exercise-induced, sporadic pain in the muscles of a limb, resulting

from reduced blood flow.

Ischemia: Localized loss of blood supply due to a mechanical obstruction.

Ischemic Heart Disease: A form of heart disease resulting primarily from decreased blood supply

to the heart.

And Other Body Systems. It Was Originally Observed In Japan

During The 1960s.

Left Ventricular Ejection

Fraction (LVEF):

A measure of the pumping function of the left ventricle, the main pumping chamber of the heart. It is an important measure of the severity of heart

muscle dysfunction.

Left Ventricular Function: Function of the main pumping chamber of the heart (left ventricle), which

receives blood from the left atrium and pumps it out into the systemic

circulation through the aortic valve.

Lumen The cavity or opening in tubelike organs, such as arteries.

M

Magnetic Resonance

Imaging (MRI)

A diagnostic technique that uses the response of atoms to a

magnetic field to produce cross-sectional images of the body's internal

structures.

Marfan Syndrome A rare inherited disease of the connective tissues that produces

abnormalities in the skeleton, heart, and blood vessels.

Metabolism

The physical and chemical processes necessary to sustain life.

Mitral Insufficiency

(Regurgitation)

Failure of the mitral valve to close properly, allowing some blood to flow back into the left atrium rather than moving forward into the left ventricle.

Mitral Valve Prolapse A congenital abnormality in which the leaflets, or flaps, of tissue that

makeup the mitral valve are larger than normal.

Mitral Valve Valve that controls the flow of oxygenated blood from the left atrium into

the left ventricle.

Monounsaturated Fats Fatty acids that are capable of absorbing more hydrogen. They are soft at

room temperature and have little effect on the amount of cholesterol in

the blood. Examples include olive oil and chicken fat.

Multigated Acquisition

(MUGA)

Scan A radioisotope test used to measure heart function and

performance.

Multivessel Disease Blood vessel disease in which more than one vessel is blocked

or otherwise impaired.

Muscular Dystrophy An Inherited Childhood Disease Characterized By Progressive Muscle

Wasting And Weakness. The Disease Affects Male Children, Who Inherit The Defective Gene From Their Mothers. Myocardial Infarction Medical Term For A Heart Attack, Denoting Damage Of The Heart

Muscle As A Result Of A Reduction In Blood Flow.

Myocardial Infarction: Damage to the heart muscle caused by blockage of one or more of the

coronary arteries.

Myocardial Ischemia: Condition in which the blood supply to the heart is decreased below its

needs

Myocardial Perfusion

Imaging:

An imaging technique for studying the blood flow to heart muscle at rest

or with exercise or pharmacological stress.

Myocarditis Inflammation Of The Heart Muscle.

Myocardium: The muscular wall of the heart.

Myxomatous

Degeneration

A metabolic process in which valve tissue loses elasticity and becomes

redundant.

Ν

Neuron A nerve cell.

Nitroglycerin A drug used to treat angina. It dilates coronary arteries.

entering an artery.

Norepinephrine A hormone secreted by nerve endings and the adrenal glands that helps

to maintain constant blood pressure by constricting certain blood vessels

when blood pressure drops.

Norwood Procedure An operation to treat pulmonary insufficiency in which a shunt is created

to provide blood flow from the heart to the lungs.

Nuclear Cardiology: A specialty of cardiology that uses radioisotopes for diagnostic and

therapeutic purposes.

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Obesity A body weight 20 percent or more above the accepted standard for a

person's age, sex, and body type.

Occlusion Blockage of an opening or vessel in the body.

Open Heart Surgery Heart procedures such as coronary artery bypass graft surgery and valve

replacement surgery, which require incision through the chest wall, opening of the heart chambers, and usually use of heart-lung bypass

machine.

Open-Heart Surgery A major surgical procedure on the heart during which circulatory functions

are temporarily taken over by a heart-lung machine.

Orthopnea Shortness of breath that occurs when lying down, usually a symptom of

heart failure.

Orthostatic Hypotension A sudden drop in blood pressure that occurs when a person stands up.

Can cause fainting.

Ostium Primum In the heart of a fetus, an opening that serves as a link between the two

developing atria. It closes as the septum fully develops.

Ostium Secundum In the heart of a fetus, an opening that develops as the ostium primurn

closes, continuing communication between the atria.

P

Pacemaker The center of electrical activity in the heart that regulates the heartbeat.

The term is also used for an artificial device implanted in the heart

to provide an adequate heart rate.

Palliative Therapy Treatment that is aimed at relieving the symptoms rather than curing the

ailment.

Palpitations

A feeling that the heart is pounding against the chest, caused by an

irregular, strong, or rapid heartbeat

Paroxysmal Nocturnal

Dyspnea

Difficulty in breathing that comes on intermittently and suddenly when the affected person is lying down, often waking him or her from sleep.

Paroxysmal Tachycardia

A sudden increase in heart rate up to 130 to 260 beats per minute from the normal 60 to 80 beats per minute. This condition may last for from a few minutes to several days.

Patent Ductus Arteriosus

A heart defect in which the fetal opening between the aorta and puhnonary artery fails to close at birth. As a result, oxygenated blood from the aorta goes into the lungs, through the left side of the heart, and then out through the aorta.

Penetrance:

The probability that a disease phenotype will appear when a disease-related genotype is present.

Percutaneous

Transluminal Coronary

Angioplasty:

Compression of an arterial plaque by inflating a balloon catheter to dilate (expand) the vessel and clear the obstruction.

Percutaneous Transluminal Coronary

Angioplasty

The technical name for balloon angioplasty of the coronary arteries.

Perfusion Imaging

A test using radionuclide scanning that shows the pattern of the flow of blood in the heart.

Perfusion Scan:

A test to determine the status of blood flow to an organ. Myocardial (heart) perfusion scans are done to determine the presence of coronary artery disease or heart muscle scarring.

Perfusion:

Flowing over or through, as in blood flow through the organs and tissues of the body. See perfusion scan.

Pericarditis

An inflammation of the sac around the heart (pericardium).

Pericardium

The membranous sac around the heart.

Peripheral Vascular

Disease

Partial or complete blockage of the arteries supplying blood to other body organs including extremities, kidneys, intestines, and brain. Essentially the same disease process which causes blockage of heart arteries.

Peripheral Vascular

Disease

Disease that affects the outlying blood vessels (arteries) such as those in

the limbs.

Pharmacologic Stress Test:

A test of heart function using medications such as adenosine, dipyridamole or dobutamine, often done in patients who are unable to exercise to an adequate level, or who have other conditions (such as LBBB that can make exercise testing less accurate). See exercise stress test.

Phlebitis

Inflammation of a vein or veins, occurring most often in the legs.

Plaque Plasma

Fatty deposits that form raised patches in the inner lining of the arteries. Denotes atherosclerosis.

Plasma:

The liquid portion of the blood. (plasma can be colored; jaundice for example)

Platelet Scintigraphy

A radionuclide scan studying the behavior of the platelets, the prime components in the blood-clotting process.

Platelets

The smallest of the blood cells, also called thrombocytes; responsible for clotting.

Pleural Effusion

Accumulation of excessive fluid between the layers of the membrane (pleura) that lines the lungs and chest cavity.

Polyunsaturated Fats

Fatty acids that carry the least amount of hydrogen. They are soft at room temperature and can produce a lowering of blood cholesterol. Sources include canola, corn, safflower, and sunflower oils.

Positron Emission Tomography Scanning A nuclear diagnostic test that employs special radioisotopes that emit positrons and produce unique three dimensional isotope pictures of heart blood flow and metabolism.

Post-MI (Myocardial Infarction) Angina:

Angina occurring from 1 to 60 days after an acute myocardial infarction (heart attack).

Potassium

A mineral (electrolyte) that is essential in maintaining the body's proper biochemical balance.

Pre-Eclampsia

A condition that can occur during the last three months of pregnancy. Also called toxemia, its symptoms include high blood pressure, fluid buildup, and headaches.

Prognostic:

Pertaining to the prognosis, or prediction of the likelihood of a future event. In cardiology, generally refers to a heart attack, cardiac arrest, bypass surgery, or angioplasty. Nuclear imaging tests are important prognostic tests in patients with heart disease.

Prolapse:

Floppy valve, associated with regurgitation.

Prophylactic Antibiotics (Prophylaxis)

Antibiotics administered to prevent infection, usually for patients with endocarditis or rheumatic heart disease.

Prostaglandins

Hormonelike chemicals that are secreted by many body tissues and are instrumental in many body functions, including blood clotting, control of blood vessel size, and muscle function.

Ptca:

Percutaneous transluminal coronary angioplasty.

Pulmonary Embolism

A blocking of the pulmonary artery or one of its branches by a blood clot (embolus).

Pulmonary Hypertension

Abnormally high blood pressure in the arteries that supply the lungs.

Pulmonary Regurgitation

A defect in the pulmonary valve, allowing a backflow of blood into the right ventricle.

Pulmonary Stenosis

A narrowing or obstruction of the pulmonary valve or artery, impeding the flow of blood to the lungs.

Pulmonary Valve

The valve between the right ventricle and the pulmonary artery.

Pulse

The expansion and contraction of a blood vessel, especially an artery, that corresponds to the beating of the heart.

Purkinje Fibers

Conduction fibers that form a network in the lower chambers of the heart and that carry electrical impulses to the walls of the ventricles.

Q

Quantification:

The process of determining a deviation from normal in terms of percentages (or other specific measures), as compared to a qualitative determination, where a deviation may be defined as mild, moderate or severe.

R

Radionuclide Test:

A diagnostic test in which a radioactive substance is injected into the bloodstream and the radioactivity emitted is detected by a gamma camera.

Rales

Chest sounds that can be heard with a stethoscope when a person with excessive lung fluid breathes. Caused by air passing through the fluid.

Raynaud's Phenomenon

A term used when the symptoms of Raynaud's disease are secondary to another condition.

Raynaud's Disease A circulatory disorder characterized by episodes of reduced circulation to

the fingers and toes. Small vessels contract suddenly in response to cold

or emotional upset, cutting off the blood Supply.

Regurgitation The backflow of blood through a valve that has not closed

properly (insufficiency).

Renin An enzyme that is secreted mainly by the kidney and is important in

regulating blood pressure. Restenosis Recurrent narrowing or blockage

of a blood vessel after treatment such as balloon angio- plasty.

Re-Stenosis: The recurrence of a stenosis after initial successful treatment with

angioplasty or another catheter-based technique.

Restrictive

Cardiomyopathy

A heart muscle disease that results in increased stiffness of the heart,

causing it to have difficulty filling adequately.

Revascularization: Restoration of normal blood flow to the myocardium, or heart, by surgical

(CABG) or percutaneous means, (through the skin, such as PTCA or with

removal or reduction of an obstruction.

Rheumatic Fever A childhood disease that can damage the heart, joints, and other organs.

It usually develops after a strep throat infection, and is now uncommon in

the United States thanks to early treatment of strep infections.

Risk Factor A condition or behavior that increases the likelihood of a disease or injury.

Major cardiovascular risk factors include high blood pressure or elevated blood cholesterol levels and a history of smoking. A family history of early

heart attacks, diabetes, a sedentary existence, male sex, and age

also increase the risk.

Risk Factors Medical, genetic, environmental or other conditions which are known to

increase the risk of the development of a second disease. For example diabetes, high blood pressure and high cholesterol are all risk factors for

later development of coronary artery disease.

Rubella A viral infection, also called German measles, that can cause congenital

heart disease and other defects in infants born to women who contracted

the disease during pregnancy.

S

Saccular Aneurysm

A round, protruding distention in a weak part of an artery.

Saphenous Vein The vein in the legs that is often removed and used to bypass a blocked

vessel in coronary bypass surgery.

Sarcoidosis A rare disease that can cause inflammation of the heart muscle or heart

muscle dysfunction, as well as inflammation of the lymph nodes and

tissues in other parts of the body.

Saturated Fats Fatty acids that contain the maximum possible amount of hydrogen. They

are hard at room temperature and include most animal fats as well

as palm, palm kernel, and coconut oils.

Semilunar Valves Heart valves that are composed of cusps in the shape of a half-

moon, such as the aortic and pulmonary valves.

Septal Defect A congenital abnormality in which there is an opening in the dividing wall

between the left and right sides of the heart. This can occur between

either the atria or the ventricles.

Sick Sinus Syndrome A condition during which the sinus node (i.e. The natural intrinsic

pacemaker of the heart), becomes dysfunctional, thus leading to the

various cardiac arrhythmias.

Sinoatrial Node The natural pacemaker in the heart, consisting of a group of specialized

muscle cells on the wall of the right atrium. It controls the heart's electrical

activity.

Sphygmomanometer A device used to measure blood pressure. It consists of an inflatable

rubber cuff, an air pump, and a column of mercury or a dial that registers

air pressure. Readings are expressed in millimeters of mercury (mm Hg).

Stasis Reduced or discontinued flow; for example, a slowing of the flow of blood.

Stenosis Narrowing of a blood vessel, heart valve, or other bodily passage.

Stenosis: A narrowing or blockage of an artery or valve.

Stenosis: Constriction of a passage. Used typically when there is a narrowing of a

valve opening or of a blood vessel.

Stents Tiny metal "scaffolds" that support tubular structures such as arteries. A

stent may be used to keep a collapsed artery open until surgery can take place, it may hold a vessel open while a physician works on it, or it may provide a permanent opening in a blocked artery, placed during

percutaneous transluminal coronary angioplasty.

Stethoscope The instrument used to amplify and listen to the sounds made by the

heart, blood vessels, and lungs.

Stress Test A type of non-invasive test using graded exercise or medication to

increase blood pressure and heart rate and determine the response of

the patients heart.

Stress Testing: This is a procedure used for detecting the presence of heart disease, or

for assessing the severity of heart disease in those with known heart disease. Cardiovascular stress is brought about by exercise (usually by treadmill or bicycle) or by the administration of certain medications such as adenosine, dipyridamole or dobutamine. Sometimes emotional or

mental stress testing is also used for studying heart function.

Stress: An increased demand on any organ. In cardiology, this refers to a

condition of increased cardiac (heart muscle) work, which is accompanied

by a need for increased blood flow to the heart. This can be

accomplished with exercise or during injection of certain pharmacological

stress agents.

Stroke A disruption of blood flow to the brain, usually caused by a clot or rupture

of a blood vessel.

Stroke Volume . The amount of blood the heart pumps out at each contraction

Subarachnoid Hemorrhage

Bleeding beneath the membrane covering the brain's surface, which

can compress the brain tissue.

Superior Vena Cava The major vein that carries deoxygenated blood from the upper portion of

the body (head, neck, and chest) back to the heart.

Supraventricular Tachycardia

A rapid heart beat that originates in the upper chambers of the heart.

Curable condition by RF catheter ablation.

Supraventricular Tachycardia

A too-rapid heartbeat (140 to 180 beats per minute). It can persist for several minutes to hours or days. It occurs when the tissue above the ventricles generates impulses at a faster rate than the usual pacemaker

of the heart.

Sympathetic Nervous

System

The part of the autonomic nervous system that controls heart rate, size of

blood vessels, and numerous other body functions.

Syncope The medical term for fainting.

Systole: Referring to the period of time during the heart cycle in which the

ventricles pump blood through the aorta and pulmonary artery. See

diastole.

Systolic Blood Pressure The part of the blood pressure reading that corresponds to the heart's

contraction or heartbeat. This is the greater of the two numbers in a blood

pressure reading.

Т

Tachycardia Rapid heartbeat (more than 100 beats per minute in an adult).

Tachycardia: Excessively rapid heartbeat.

Teboroxime: A compound that is labeled with Technetium-99m and is absorbed from the circulation by heart muscle, allowing for the study of myocardial

perfusion or blood flow to the heart using a gamma camera.

Technetium: Forty-third element in the periodic table. The radioactive form of this

element is referred as Technetium-99m, 99mtechnetium, or Tc-99m. This radioisotope can be incorporated into a number of different compounds, such as sestamibi or tetrofosmin, for studying different organs, including the heart. This is the most commonly used radioisotope in nuclear

medicine.

Technologist: A person who applies scientific knowledge in a specialized field or

process. A nuclear cardiology technologist is a specialized healthcare professional who works directly with patients during an imaging procedure and works closely with the nuclear medicine physician and/or

cardiologist

Temporal Lobes

The lower side of each half of the main part of the brain (the cerebrum).

Tetralogy Of Fallot A four-part congenital heart defect including a displaced aorta, a

narrowed pulmonary valve, a hole in the ventricular septum, and

a thickened wall in the right ventricle.

Tetrofosmin: A compound that is labeled with Technetium-99m and is absorbed from

the circulation by heart muscle, allowing for the study of myocardial

perfusion or blood flow to the heart using a gamma camera.

Thallium Stress Test A radioisotope diagnostic stress test for defining areas of the heart with

decreased blood flow.

Thallium: Eighty-first element in the periodic table. The radioactive form of this

element is referred as Thallium-201, 201Thallium or Tl-201. Thallium-201 chloride is used in studying myocardial perfusion or blood flow to the

heart.

Thrombus A blood clot inside a blood vessel.

Tissue Plasminogen

Activator

Clot-dissolving substance that can be produced in the body or

through genetic engineering techniques.

Transcutaneous: Through the skin.

Transdermal

Delivered through the skin.

Transfusion:

The injection of whole blood or blood products into the blood stream.

Transient Ischemic

Attack

Also called ministroke temporary symptoms resembling those of a stroke, which result from a disruption in blood flow to the brain. They are usually of short duration, but maybe warning signs of an impending

permanent stroke.

Tricuspid Regurgitation

The inability of the tricuspid valve to close properly, thereby

allowing blood to leak back into the right atrium.

Tricuspid Stenosis

Narrowing 'or stiffness of the valve between the right atrium and the right ventricle. A rare disorder that usually affects people who have had rheumatic fever.

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

A fatty substance (lipid) found in the body's fatty (adipose) tissues. High levels are found in diabetics and may play a role in atherosclerosis.

U

Ultrasound

High-frequency sound waves used for diagnostic and treatment purposes.

Unstable Angina:

Angina or chest pain, that occurs at rest, occurs with exertion for the very first time, or has accelerated.

٧

Vagus Nerve

The major nerve of the parasympathetic nervous system that slows the heart rate when stimulated. It is involved in gastrointestinal function.

Valve Repair

A surgical technique to reconstruct a poorly functioning heart valve.

Valve Replacement

Surgical technique to remove a poorly functioning heart valve and replace it with a mechanical device.

Valvotomy/Valvulotomy

An open-heart operation to correct a blocked heart valve. A newer, less invasive technique known as balloon valvulotomy employs a balloon-

tipped catheter to open up the valve.

Valvuloplasty . Reconstructive open-heart surgery to repair a defective heart valve.

Balloon valvuloplasty uses a balloon-tipped catheter.

Varicose Veins Swollen, twisted veins found mostly in the legs. They swell because blood

drains back down into the legs and pools, the result of defective valves in

the veins.

Vasoconstriction Constriction of the blood vessels.

Vasodilate: The increase in diameter of a blodd vessel, such as an arteriole, resulting

in an increase inblood flow to an organ or portion of the body

Vasodilator A substance that causes blood vessels to relax or dilate.

Vasospasm . Spasm of the blood vessels

Vasovagal Response Temporary light-headedness or loss of consciousness because of a

sudden reduction in heartbeat and blood pressure.

Vein: A blood vessel that carries blood toward the heart; veins usually carry

deoxygenated blood

Vena Cava(E): The large vein(s) collecting the venous return from the head, neck and

shoulders (superior vena cava) and the legs and gut (inferior vena cava),

which drain into the right atrium of the heart

Venous Thrombosis

The medical term for blood clots in the veins.

Ventricle: A chamber of the heart that pumps blood to the body or the lungs. Right

ventricle is the lower chamber of the right side of the heart, which pumps venous blood through the pulmonary artery to the capillaries of the lung left ventricle is the lower chamber of the left side of the heart, which pumps oxygenated blood through the aorta to all the tissues of the body

Ventricular Fibrillation Rapid, uncoordinated, and ineffective contractions of the heart initiated by

electrical impulses from the ventricles. Can be fatal if it is not reversed.

Ventricular Tachycardia

(Vt) A rapid heart beat that originates in the lower chambers of the heart.

Ventriculography: A procedure for taking a picture of the of ventricles of the heart by x-ray

or gamma camera after injection of a radio opaque contrast dye or a

radiopharmaceutical.

VEST Scan One of the newest radionuclide diagnostic tests; it uses a miniaturized

radionuclide detector (VEST) that can be worn for

ambulatory monitoring.

Viability: A state in which heart muscle is not functioning properly, but where its

functioning can improve after revascularization.

W

White Blood Cells Any of several types of blood cells whose function is to destroy

foreign substances in the body, such as bacteria. (leukocytes)

Wolff-Parkinson White

Syndrome

A congenital condition during which there is an abnormal tissue connection (accessory pathway) between the top and the lower cardiac chambers. This may lead to supraventricular tachycardia and atrial

fibrillation. A curable condition by RF catheter ablation.

Wolff-Parkinson-Whitesyndrome A congenital cardiac syndrome characterized by episodes of rapid heartbeats, from 120 to 200 beats per minute. It is caused by

abnormal conduction of electrical signals in the heart.