

## GLOSSARY OF KEY CARDIOVASCULAR TERMS

**Angiogram:** An X-ray of blood vessels filled with contrast media; a diagnostic procedure is generally referred to as an angiogram.

**Angioplasty:** A procedure that may precede or follow stent placement. A balloon catheter expands the lumen of the vessel, leaving a larger opening for the blood to pass through. Also known as percutaneous transluminal coronary angioplasty (PTCA).

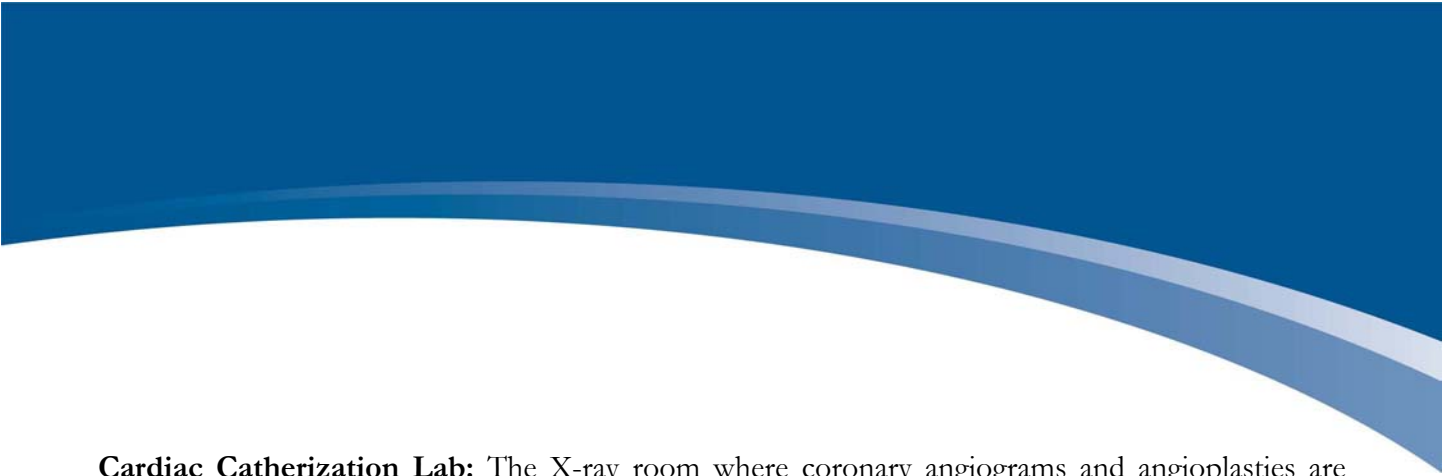
**Atherectomy/Atherotomy:** A procedure to remove plaque from the inside of a blood vessel. Most commonly, atherectomy is done in major arteries such as the coronary arteries and other major arteries that have experienced the occlusive effects of atherosclerosis. Atherectomy may be accomplished by various means, including a balloon-tipped catheter (angioplasty), a laser, conventional surgical incision or a small, drill-tipped catheter.

**Atherosclerosis:** A disease in which the flow of blood to the heart is restricted with plaque deposits (a build-up of cholesterol and other fats, calcium and certain other elements carried in the blood) and therefore, less oxygen and other nutrients reach the heart muscle. This may lead to chest pain (angina pectoris) or to a heart attack (myocardial infarction).

**Balloon Catheter:** A catheter with a balloon attached to the tip, used to dilate and widen a passageway in the body. Balloon catheters are used to open arteries that are blocked by plaque by compressing the blockage against the wall of the vessel, opening a passage and restoring blood flow. While this form of angioplasty still exists, the role of balloon catheters has evolved with the advent of the coronary stent. The balloon catheter now also serves as a means to open an adequate pathway to deliver the stent, known as pre-dilatation, and to allow for expansion of the stent against the vessel wall, known as post-dilatation.

**Binary Restenosis:** 50 percent or greater vessel re-occlusion.

**Cardiac Catheterization:** Procedures used to study the various functions of the heart. Using different techniques, the coronary arteries can be viewed by injecting dye or opened using balloon angioplasty.



**Cardiac Catheterization Lab:** The X-ray room where coronary angiograms and angioplasties are performed in hospitals. Also known as the cath lab.

**Cardiovascular:** The circulatory system – consisting of the heart and blood vessels which carries nutrients and oxygen to the tissues of the body and removes carbon dioxide and other wastes from them.

**Cardiovascular Disease:** Disease affecting the heart or blood vessels. Cardiovascular diseases include arteriosclerosis, coronary artery disease, heart valve disease, arrhythmia, heart failure, hypertension, orthostatic hypotension, endocarditis, diseases of the aorta and its branches, disorders of the peripheral vascular system, and congenital heart disease.

**Carotid:** Pertaining to the carotid artery and the area near that key artery, which is located in the front of the neck and through which blood from the heart flows to the brain.

**Catheter:** A thin plastic tube used to access various parts of the body, such as the coronary arteries. A treatment device—such as a stent—is often attached to the catheter.

**Coronary:** Related to arteries that supply blood and nutrients to the heart.

**Coronary Angiogram:** A test to determine if coronary artery disease is present. Contrast dye is injected into the coronary arteries and a fluoroscope allows clinicians to see the vessels on an X-ray screen.

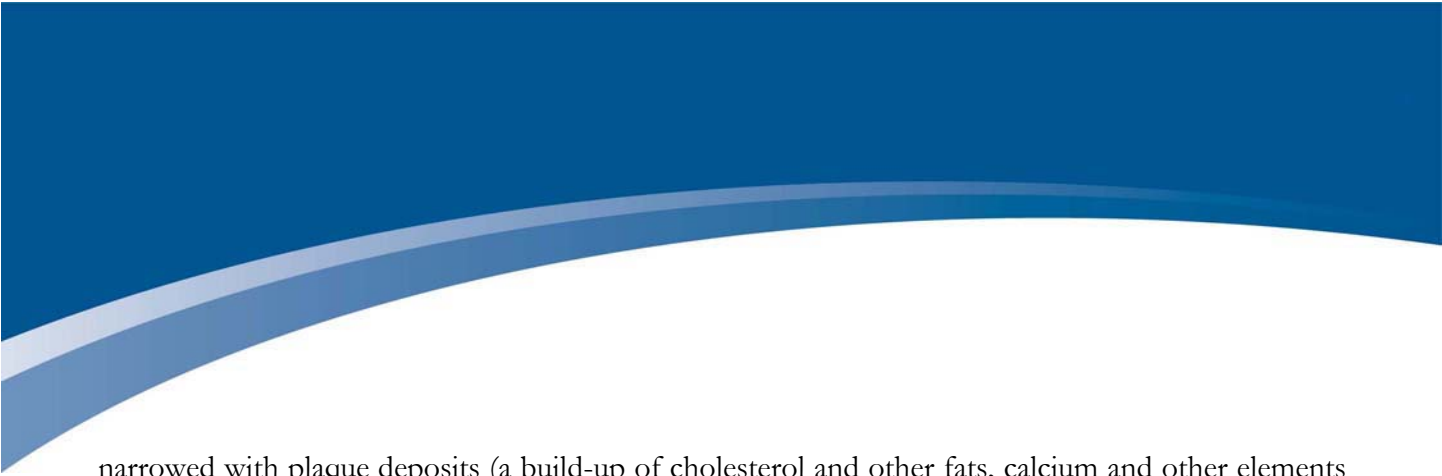
**Coronary Arteries:** The arteries that surround the heart and supply blood containing oxygen and nutrients to the heart muscle.

**Coronary Artery Bypass Surgery:** The medical term for heart bypass surgery. This surgery is carried out to relieve angina (chest pain or discomfort caused by reduced blood supply to the heart) by creating a bypass around blocked or narrowed coronary arteries. The bypass itself is a short length of artery or vein taken from the leg or chest and grafted onto the heart above and below the blocked artery.

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**Coronary Artery Disease:** Disease affecting the coronary arteries that surround the heart and supply blood to the heart muscle. It occurs when the lumen of the coronary arteries becomes



narrowed with plaque deposits (a build-up of cholesterol and other fats, calcium and other elements carried in the blood).

**Drug-Eluting Stent:** Drug-eluting stent refers to a stent with an active drug that is intended to produce a therapeutic effect (e.g., reduction of restenosis).

**Electrocardiogram:** (ECG or EKG) See stress test.

**Embolism:** The sudden blocking of an artery by a clot or foreign material which has been brought to its site of lodgement by the blood current.

**Exercise Electrocardiogram:** See stress test.

**Femoral:** Pertaining to the femur or groin. An incision in the femoral artery allows a physician to insert a treatment device—such as a balloon catheter with stent—and place it at the site of a lesion.

**Guide Catheters:** Flexible tubes that are introduced into the vascular system through small incisions in the groin. The physician directs the guide catheter through the vascular system to the site of the lesion. Once positioned in the vessel, the guide catheter functions as a working channel through which smaller devices—such as guidewires—may be introduced.

**Guidewire:** A thin, usually flexible wire that can be inserted into a confined space to act as a guide to facilitate passage of a device, such as a catheter.


**In Stent:** Area within the boundaries of the stent.

**Ischemia:** A condition that results from reduced blood flow to cells due to an obstruction. Ischemia is reversible if normal blood flow is restored.

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**IVUS (Intravascular Ultrasound):** A tiny ultrasound “camera” that is threaded into the arteries to give physicians a cross-sectional view, showing where the normal artery wall ends and the plaque begins. Used in conjunction with angiography, the catheter-based IVUS technology gives physicians a more detailed understanding of the plaque in patients’ arteries. In certain situations, IVUS can aid in the selection and sizing of stents and balloons and can offer assurance that a stent has been properly deployed.



**Late Loss:** Neointimal formation post procedure.

**Lesion Length:** Length of the lesion, as measured from end-to-end by a core laboratory.

**Less Invasive:** Less-invasive medical technologies provide alternatives to major surgery and other medical procedures that are typically traumatic to the body. They benefit patients and health care systems by reducing risk, trauma, cost, procedure time and the need for aftercare. In less-invasive procedures, devices are generally inserted into the human body through natural openings or small incisions and can be guided to most areas of the anatomy to diagnose and treat a wide range of medical problems.

**Lumen:** The hollow space inside a blood vessel through which the blood flows.

**Major Adverse Cardiac Events (MACE):** Cardiac death, myocardial infarction (MI) including Q- and non Q-wave MI, and target vessel revascularization (TVR).

**Myocardial Infarction (MI):** Permanent damage to the heart tissue and muscle due to the interruption of the blood supply to the area. Commonly referred to as a heart attack.

**Occlusion:** The act of closing or the state of being closed.

**Paclitaxel:** One of the most effective and widely used drugs for controlling growth of cancerous cells. Originally isolated by the U.S. National Cancer Institute from the bark of


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yew trees, paclitaxel has proved to be an effective treatment for a wide range of cancers. For the treatment of restenosis, paclitaxel doses that are approximately three thousand times less than those used in cancer treatment are sufficient to limit smooth muscle cell growth while not inhibiting the body's natural ability to heal itself at the site.

**Percutaneous:** Performed through the skin.

**Percutaneous Transluminal Coronary Angioplasty: (PTCA)** See Angioplasty.



**Percutaneous Transluminal Coronary Intervention: (PTCI)** A minimally invasive treatment of the coronary arteries that is performed through a small access point via the skin and lumens of the vessels.

**Peripheral Vascular Disease:** The condition that arises when blood vessels in the legs, abdomen, pelvis, arms, or neck become narrowed or blocked. Peripheral refers to blood vessels away from the heart. Peripheral vascular disease most commonly affects the blood vessels of the legs or the arteries in the abdomen and pelvis that lead to the legs.

**Plaque:** An accumulation or build-up of calcium, cell debris, fatty deposits or collagen in a coronary vessel that leads to narrowing of the lumen.

**Polymer:** A carrier that provides uniform drug coverage along the stent, enables time-released dosing and is vascular compatible.

**Post-Dilatation:** After a stent has been expanded, another balloon catheter may be inserted inside the stent and inflated to size the stent more precisely to the vessel wall.

**Pre-Dilatation:** The use of a balloon catheter to dilate a coronary lesion prior to placement of the coronary stent. This procedure provides the physician access for the stent delivery system as well as aiding in selection of stent size.

**Restenosis:** The growth of neointimal tissue within an artery after angioplasty and stenting.

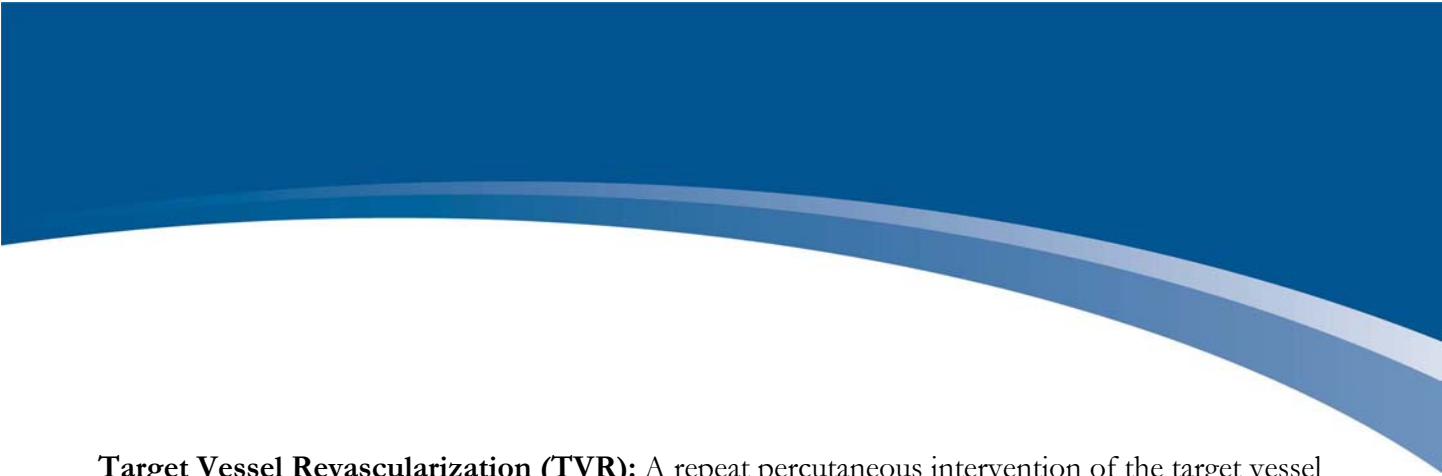
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**Stent:** An expandable metal tube that supports the vessel wall and maintains blood flow through the opened vessel.

**Stress Test:** A test used to measure electrical activity in the patient's heart (ECG or EKG) while the patient is doing a controlled exercise. The results indicate whether there is damage to the heart or if blood flow has been restricted to areas of the heart.

**Target Lesion Revascularization (TLR):** A repeat percutaneous intervention of the target lesion or bypass surgery of the target vessel involving the target lesion.



**Target Vessel Revascularization (TVR):** A repeat percutaneous intervention of the target vessel or bypass surgery of the target vessel.

**Target Vessel Failure (TVF):** Any ischemia-driven revascularization of the target vessel, or MI (Q- and non Q-Wave) related to the target vessel, or death related to the target vessel. If it could not be determined with certainty whether MI or death was related to the target vessel, it was considered TVF.

**TAXUS:** A series of clinical trials by Boston Scientific designed to collect clinical information on the Company's proprietary drug-eluting stent technology.

**Thrombus:** Blood clot.

**Transluminal:** Literally, through the lumen (i.e. the inner channel of a vessel).

**Vessel:** A vein or artery.