

**Abdomen**

The belly, that part of the body that contains all of the structures between the chest and the pelvis. The abdomen is separated anatomically from the chest by the diaphragm, the powerful muscle spanning the body cavity below the lungs.

**Abdominal pain**

Pain in the belly (the abdomen). Abdominal pain can come from conditions affecting a variety of organs. The abdomen is an anatomical area that is bounded by the lower margin of the ribs above, the pelvic bone (pubic ramus) below, and the flanks on each side. Although abdominal pain can arise from the tissues of the abdominal wall that surround the abdominal cavity (the skin and abdominal wall muscles), the term abdominal pain generally is used to describe pain originating from organs within the stomach, small intestine, colon, liver, gallbladder, and pancreas.

**ACE inhibitors**

A drug that inhibits ACE (angiotensin converting enzyme) which is important to the formation of angiotensin II. Angiotensin II causes arteries in the body to constrict and thereby raises the blood pressure. ACE inhibitors lower the blood pressure by inhibiting the formation of angiotensin II. This relaxes the arteries. Relaxing the arteries not only lowers blood pressure, but also improves the pumping efficiency of a failing heart and improves cardiac output in patients with heart failure. ACE inhibitors are therefore used for blood pressure control and congestive heart failure.

**Acute**

Of abrupt onset, in reference to a disease. Acute often also connotes an illness that is of short duration, rapidly progressive, and in need of urgent care.

**Adrenaline**

A substance produced by the medulla (inside) of the adrenal gland, adrenaline (the official name in the British Pharmacopoeia) is synonymous with epinephrine. Technically speaking, adrenaline is a sympathomimetic catecholamine. It causes quickening of the heart beat, strengthens the force of the heart's contraction, opens up the bronchioles in the lungs and has numerous other effects. The secretion of adrenaline by the adrenal is part of the "fight-or-flight" reaction that we have in response to being frightened.

**Alzheimer's disease**

A progressive neurologic disease of the brain that leads to the irreversible loss of neurons and dementia. The clinical hallmarks of Alzheimer's disease are progressive impairment in memory, judgment, decision making, orientation to physical surroundings, and language. A working diagnosis of Alzheimer's disease is usually made on the basis of the neurologic examination. A definitive diagnosis can be made only at autopsy. On a cellular level, Alzheimer's disease is characterized by unusual helical protein filaments in nerve cells (neurons) of the brain. These odd twisted filaments are called neurofibrillary tangles. On a functional level, there is degeneration of the cortical regions, especially the frontal and temporal lobes, of the brain.

**Angina**

Chest pain due to an inadequate supply of oxygen to the heart muscle. The chest pain of angina is typically severe and crushing. There is a feeling just behind the breastbone (the sternum) of pressure and suffocation.

**Angina pectoris**

Chest pain that is typically severe and crushing with a feeling just behind the breastbone (the sternum) of pressure and suffocation, due to an inadequate supply of oxygen to the heart muscle. The term “angina pectoris” comes from the Latin “angere” meaning “to choke or throttle” + “pectus” meaning “chest”. Angina pectoris was first described by the English physician William Heberden (1710-1801) and may be referred to simply as angina.

**Angiography**

A procedure performed to view blood vessels after injecting them with a radiopaque dye that outlines them on x-ray. This technique can be usefully used to look at arteries in many areas of the body, including the brain, neck (carotids), heart, aorta, chest, pulmonary circuit, kidneys, gastrointestinal tract, and limbs.

**Angioplasty**

Procedure with a balloon-tipped catheter to enlarge a narrowing in a coronary artery. Also called Percutaneous Transluminal Coronary Angioplasty (PTCA).

**Angiotensin**

A family of peptides (smaller than proteins) that act as vasoconstrictors to narrow blood vessels.

**Angiotensin converting enzyme**

Usually abbreviated ACE

**Anticoagulant**

Any agent used to prevent the formation of blood clots.

**Arms**

An appendage in anatomy and in clinical trials

**Artery**

A vessel that carries blood high in oxygen content away from the heart to the farthest reaches of the body. Since blood in arteries is usually full of oxygen, the hemoglobin in the red blood cells is oxygenated. The resultant form of hemoglobin (oxyhemoglobin) is what makes arterial blood look bright red.

**ASD Repair**

An atrial septal defect (ASD) is a hole in the wall between the left and right atria (upper heart chambers). Non-surgical catheterization treatments involve the implantation of a

small closure device. A special catheter positions the device so that two discs cover both sides of the hold. Over time, heart tissue grows over the implant.

### **Aspirin**

A good example of a tradename that entered into the language. Aspirin was once the Bayer trademark for acetylsalicylic acid.

### **Atherectomy**

A procedure that uses special cutting or grinding tools at the end of a catheter to remove plaque from artery walls.

### **Atherosclerosis**

A process of progressive thickening and hardening of the walls of medium-sized and large arteries as a result of fat deposits on their inner lining.

### **Atherosclerotic**

Pertaining to atherosclerosis, the process of progressive thickening and hardening of the walls of arteries from fat deposits on their inner lining. Atherosclerotic heart disease is the leading cause of death in the US.

### **Atypical**

Not typical, not usual, not normal, abnormal. Atypical is often used to refer to the appearance of precancerous or cancerous cells.

### **Back pain**

Pain felt in the low or upper back. There are many causes of back pain.

### **Balloon Angioplasty**

A balloon at the end of a catheter is inflated to compress the clogged area of the artery against the artery wall, and is then removed.

### **Balloon Valvuloplasty**

A balloon at the end of a catheter is inflated and deflated to widen the opening of a narrowed heart valve, and is then removed.

### **Biochemical**

Relating to biochemistry, the application of the tools and concepts of chemistry to living systems.

### **Blood clot**

Blood that has been converted from a liquid to a solid state. Also called a thrombus.

### **Blood pressure**

The blood pressure is the pressure of the blood within the arteries. It is produced primarily by the contraction of the heart muscle. Its' measurement is recorded by two numbers. The first (systole pressure) is measured after the heart contracts and is highest.

The second (diastolic pressure) is measured before the heart contracts and lowest. A blood pressure cuff is used to measure the pressure. Elevation of blood pressure is called "hypertension".

**Blood sugar**

Blood glucose.

**Brachytherapy**

A radiation therapy delivered inside an artery, used in conjunction with stents to prevent the re-narrowing or closing of the artery (restenosis).

**Brain**

That part of the central nervous system that is located within the cranium (skull). The brain functions as the primary receiver, organizer and distributor of information for the body. It has two (right and left) halves called "hemispheres."

**Breathing**

The process of respiration, during which air is inhaled into the lungs through the mouth or nose due to muscle contraction, and then exhaled due to muscle relaxation.

**Bypass**

An operation in which a surgeon creates a new tubular pathway for the movement of fluids and/or other substances in the body.

**CABG**

Coronary artery bypass graft and Coronary artery bypass grafting.

**CAD**

Coronary artery disease. CAD is a major cause of illness and death. It begins when hard cholesterol substances (plaques) are deposited within a coronary artery. These arteries arise from the aorta adjacent to the heart and supply the heart muscle with blood that is rich in oxygen. They are called the coronary arteries because they encircle the heart in the manner of a crown.

**Cardiac**

Having to do with the heart.

**Cardiology**

The clinical study and practice of treating the heart. The heart is the hardest working muscle in the human body. Located almost in the center of the chest, the adult human heart is about the size of two fists held side-by-side. The cardiovascular system, composed of the heart and blood vessels, is responsible for circulating blood throughout the body to supply the body with oxygen and nutrients. The heart is the muscle that pumps blood filled with oxygen and nutrients through the blood vessels to the body tissues. It is made up of four chambers (two atria and two ventricles) that receive blood from the body and pump out blood to it. When the cardiovascular system is diseased or

damaged, a cardiology specialist (or cardiologist) is the specialist physician to diagnose and treat any cardio-related sickness.

### **Cardiopulmonary resuscitation**

The emergency substitution of heart and lung action to restore life to someone who appears dead. The two main components of conventional cardiopulmonary resuscitation (CPR) are chest compression to make the heart pump and mouth-to-mouth ventilation to breath for the victim. Hands-only CPR is a form of resuscitation that involves continuous, rapid chest compressions only, and although effective, it is not as beneficial as conventional CPR in a patient who is not breathing.

### **Cardioversion**

The conversion of one cardiac rhythm or electrical pattern to another, almost always from an abnormal to a normal one. This conversion can be accomplished by pharmacologic means using medications or by electrical cardioversion using a defibrillator.

### **Carotid Angiogram**

A moving X-ray image of the blood vessels in the head and neck, using a catheter and dye to track blood flow and identify blockages.

### **Catheter**

A thin, flexible tube. For example, a catheter placed in a vein provides a pathway for giving drugs, nutrients, fluids, or blood products. Samples of blood can also be withdrawn through the catheter.

### **Chest**

The area of the body located between the neck and the abdomen. The chest contains the lungs, the heart and part of the aorta. The walls of the chest are supported by the dorsal vertebrae, the ribs, and the sternum.

### **Chest pain.**

There are many causes of chest pain. One is angina which results from inadequate oxygen supply to the heart muscle. Angina can be caused by coronary artery disease or spasm of the coronary arteries. Chest pain can also be due to a heart attack (coronary occlusion) and other important disease such as, for example, dissection of the aorta and a pulmonary embolism. Do not try to ignore chest pain and “work (or play) through it.” Chest pain is a warning to seek medical attention.

### **Cholesterol**

The most common type of steroid in the body, cholesterol has gotten something of a bad name. However, cholesterol is a critically important molecule.

### **Complication**

In medicine, an additional problem that arises following a procedure, treatment or illness and is secondary to it. A complication complicates the situation.

**Compression**

1. The act of pressing together. As in a compression fracture, nerve compression, or spinal cord compression. 2. To shorten in time, In embryology, there may be compression of development with some stages even omitted.

**Contraction**

The tightening and shortening of a muscle.

**Contrast**

Short for “contrast media.” Contrast media are x-ray dyes used to provide contrast, for example, between blood vessels and other tissue.

**Coronary angiography**

The most accurate method the “gold standard” for evaluating and defining coronary artery disease (CAD). Coronary angiography is used to identify the exact location and severity of CAD.

**Coronary arteries.**

The vessels that supply the heart muscle with blood rich in oxygen. They are called the coronary arteries because they encircle the heart in the manner of a crown. The word “coronary” comes from the Latin “corona” and Greek “koron” meaning crown. Like other arteries, the coronaries may be subject to arteriosclerosis (hardening of the arteries). There are a number of coronary arteries. Those most often bypassed today include the right coronary artery, the posterior descending coronary artery, the left main coronary artery, the left anterior descending coronary artery and the left circumflex coronary artery. Plaques obstructing the coronary arteries may also be treated by balloon angioplasty, stents, and other techniques.

**Coronary artery bypass graft**

Abbreviated CABG. A form of bypass surgery that can create new routes around narrowed and blocked coronary arteries, permitting increased blood flow to deliver oxygen and nutrients to the heart muscle. Coronary artery bypass graft is an option for selected groups of patients with significant narrowings and blockages of the heart arteries. The bypass graft for a CABG can be a vein from the leg or an inner chest-wall artery. CABG surgery is one of the most commonly performed major operations. Coronary artery disease develops because of hardening of the arteries (atherosclerosis) that supply blood to the heart muscle. Diagnostic tests prior to (and after) CABG include the electrocardiogram (EKG), stress test, echocardiogram, and coronary angiography.

**Coronary artery disease**

A major cause of illness and death, coronary artery disease (CAD) begins when hard cholesterol substances (plaques) are deposited within a coronary artery.

**CPR**

Cardiopulmonary resuscitation.

**Creatine**

A compound the body synthesizes (makes) and then utilizes to store energy. The storage of energy occurs when phosphate molecules are attached to creatine to create creatine phosphate. Creatine phosphate is capable of donating phosphate to ADP in order to make ATP. ATP can then be converted into ADP with release of energy.

**Dementia**

Significant loss of intellectual abilities such as memory capacity, severe enough to interfere with social or occupational functioning.

**Diabetes**

Refers to diabetes mellitus or, less often, to diabetes insipidus. Diabetes mellitus and diabetes insipidus share the name “diabetes” because they are both conditions characterized by excessive urination (polyuria).

**Diabetes mellitus**

Better known just as “diabetes” a chronic disease associated with abnormally high levels of sugar glucose in the blood. Diabetes is due to one of two mechanisms (1) Inadequate production of insulin (which is made by the pancreas and lowers blood glucose) or (2) Inadequate sensitivity of cells to the action of insulin. The two main types of diabetes correspond to these two mechanisms and are called insulin dependent (type 1) and non-insulin dependent (type 2) diabetes. In type 1 diabetes there is no insulin or not enough of it. In type 2 diabetes, there is generally enough insulin but the cells upon it should act are not normally sensitive to its action.

**Diagnosis**

The nature of a disease; the identification of an illness. A conclusion or decision reached by diagnosis. The diagnosis is rabies. The identification of any problem. The diagnosis was a plugged I.V.

**Diastolic**

Referring to the time when the heart is in a period of relaxation and dilatation (expansion).

**ECG**

Abbreviation for electrocardiogram or EKG.

**Electrical Cardioversion**

A procedure that uses high-energy electric shock to convert an irregular heart rhythm to a normal heart rhythm.

**Electrocardiogram**

A recording of the electrical activity of the heart. An electrocardiogram is a simple, non-invasive procedure. Electrodes are placed on the skin of the chest and connected in a specific order to a machine that, when turned on, measures electrical activity all over around the heart. Output is usually in the form of a long scroll of paper displaying a

printed graph of activity. Newer models output the data directly to a computer and screen, although a print-out may still be made.

**Emboli**

Something that travels through the blood stream, lodges in a blood vessel and blocks it. Examples of emboli are a detached blood clot, a clump of bacteria, and foreign material such as air.

**Embolism**

The obstruction of a blood vessel by a foreign substance or a blood clot blocking the vessel. Something travels through the blood stream, lodges in a vessel and plugs it.

**Enzyme**

A protein (or protein-based molecule) that speeds up a chemical reaction in a living organism. An enzyme acts as catalyst for specific chemical reactions, converting a specific set of reactants (called substrates) into specific products. Without enzymes, life As we know it would not exist.

**Esophagus**

The tube that connects the pharynx (throat) with the stomach. The esophagus lies between the trachea (windpipe) and the spine. It passes down the neck, pierces the diaphragm just to the left of the midline, and joins the cardiac (upper) end of the stomach. In an adult, the esophagus is about 25 centimeters (10 inches) long. When a person swallows, the muscular walls of the esophagus contract to push food down into the stomach. Glands in the lining of the esophagus produce mucus, which keeps the passageway moist and facilitates swallowing. Also known as the gullet or swallowing tube.

**Family history**

The family structure and relationships within the family, including information about diseases in family members.

**Father**

(1) The male parent (2) One who originates. (3) To produce offspring as a male. (4) To provide paternal protection and guidance to children.

**Fatigue**

A condition characterized by a lessened capacity for work and reduced efficiency of accomplishment, usually accompanied by a feeling of weariness and tiredness. Fatigue can be acute and come on suddenly or chronic and persist.

**Fats**

Plural of the word “fat”

**Fibrillation**

In matters of the heart (cardiology), fibrillation is incoordinate twitching of the heart muscle fibers.

**Folic acid**

One of the B vitamins that is a key factor in the synthesis (the making) of nucleic acid (DNA and RNA).

**Genetic**

Having to do with genes and genetic information.

**Graft**

Healthy skin, bone, or other tissue taken from one part of the body to replace diseased or injured tissue removed from another part of the body.

**Groin**

In anatomy, the area where the upper thigh meets the trunk. More precisely, the fold or depression marking the juncture of the lower abdomen and the inner part of the thigh.

**HDL**

High density lipoprotein.

**HDL cholesterol**

Lipoproteins, which are combinations of lipids (fats) and proteins, are the form in which lipids are transported in the blood. The high-density lipoproteins transport cholesterol from the tissues of the body to the liver so it can be gotten rid of (in the bile). HDL cholesterol is therefore considered the “good” cholesterol. The higher the HDL cholesterol level, the lower the risk of coronary artery disease.

**Headache**

A pain in the head with the pain being above the eyes or the ears, behind the head (occipital), or in the back of the upper neck. Headache, like chest pain or back ache, has many causes.

**Heart**

The muscle that pumps blood received from veins into arteries throughout the body. It is positioned in the chest behind the sternum (breastbone; in front of the trachea, esophagus, and aorta, and above the diaphragm muscle that separates the chest and abdominal cavities. The normal heart is about the size of a closed fist, and weighs about 10.5 ounces. It is cone-shaped, with the point of the cone pointing down to the left. Two-thirds of the heart lies in the left side of the chest with the balance in the right chest.

**Heart attack**

The death of heart muscle due to the loss of blood supply. The loss of blood supply is usually caused by a complete blockage of a coronary artery, one of the arteries that

supplies blood to the heart muscle. Death of the heart muscle, in turn, causes chest pain and electrical instability of the heart muscle tissue.

### **Heart disease**

Any disorder that affects the heart. Sometimes the term “heart disease” is used narrowly and incorrectly as a synonym for coronary artery disease. Heart disease is synonymous with cardiac disease but not with cardiovascular disease which is any disease of the heart or blood vessels. Among the many types of heart disease, see for example: Angina, Arrhythmia, Congenital heart disease, Coronary artery disease (CAD), Dilated cardiomyopathy, heart attack (myocardial infarction), heart failure, hypertrophic cardiomyopathy, mitral regurgitation, mitral valve prolapse, and pulmonary stenosis.

### **Heart Failure**

Inability of the heart to keep up with the demands on it and, specifically, failure of the heart to pump blood with normal efficiency. When this occurs, the heart is unable to provide adequate blood flow to other organs such as the brain, liver and kidneys. Heart failure may be due to failure of the right or left or both ventricles. The signs and symptoms depend upon which side of the heart is failing. They can include shortness of breath (dyspnea), asthma due to the heart (cardiac asthma), pooling of blood (stasis) in the general body (systemic) circulation or in the liver’s (portal) circulation, swelling (edema), blueness of duskiness (cyanosis), and enlargement (hypertrophy) of the heart.

### **Heart muscle**

A type of muscle with unique features only found in the heart. The heart muscle, or cardiac muscle, is medically called the myocardium.

### **Heartburn**

An uncomfortable feeling of burning and warmth occurring in waves rising up behind the breastbone (sternum) toward the neck. It is usually due to gastroesophageal reflux disease (GERD), the rise of stomach acid back up into the esophagus. Heartburn has nothing whatsoever to do with the heart. It is a popular nonmedical term. It is medically called pyrosis.

### **High blood pressure**

Also known as hypertension, high blood pressure is, by definition, a repeatedly elevated blood pressure exceeding 140 over 90 mmHg – a systolic pressure above 140 with a diastolic pressure above 90.

### **Hormone**

A chemical substance produced in the body that controls and regulates the activity of certain cells or organs.

### **Hormone therapy**

A form of treatment that takes advantage of the fact that certain cancers depend on hormones to grow. Hormone therapy may include giving hormones to the patient or decreasing the level of hormones in the body.

**Hot flashes**

A sudden wave of mild or intense body heat caused by rushes of hormonal changes resulting from decreased levels of estrogen. Hot flashes can occur at any time and may last from a few seconds to a half-hour. They are due to blood vessel opening and constricting and a symptom of menopause.

**Hyperlipidemia**

High lipid (fat) levels in the blood.

**Hypertension**

High blood pressure, defined as a repeatedly elevated blood pressure exceeding 140 over 90 mmHg – a systolic pressure above 140 with a diastolic pressure above 90.

**Implantable Cardioverter Defibrillator (ICD) Implantation**

A defibrillator is a device used to treat dangerously fast heart rates occurring in the heart's main pumping chambers. The implantation process is similar to that of a pacemaker, and typically includes a wire that runs through the right chambers of the heart. ICDs monitor the rate and rhythm of the heart and are programmed to deliver electrical stimulation when the heart rate goes above a set number.

**Incidence**

The frequency with which something, such as a disease, appears in a particular population or area. In disease epidemiology, the incidence is the number of newly diagnosed cases during a specific time period. The incidence is distinct from the prevalence which refers to the number of cases alive on a certain date.

**Infarction**

The formation of an infarct, an area of tissue death due to a local lack of oxygen.

**Inflammation**

A basic way in which the body reacts to infection, irritation or other injury, the key feature being redness, warmth, swelling and pain. Inflammation is now recognized as a type of nonspecific immune response.

**Injury**

Harm or hurt. The term "injury" may be applied in medicine to damage inflicted upon oneself as in a hamstring injury or by an external agent on as in a cold injury. The injury may be accidental or deliberate, as with a needlestick injury. The term "injury" may be synonymous (depending on the context) with a wound or with trauma.

**Insertion**

Chromosome abnormality due to insertion of a segment from one chromosome into another chromosome.

**Insulin**

A natural hormone made by the pancreas that controls the level of the sugar glucose in the blood. Insulin permits cells to use glucose for energy. Cells cannot utilize glucose without insulin.

**Interventional**

Pertaining to the act of intervening, interfering or interceding with the intent of modifying the outcome.

**Jaw**

The bones below the mouth (the mandible) and the bone above the mouth just above the mouth (the maxilla). The word jaw comes from the Anglo-Saxon ceowan meaning to chew.

**Laser Lead Extraction**

A catheter-guided laser is used to safely remove wires used in pacemakers and implantable defibrillators that have become infected, fractured, or blocked. The procedure takes between two and six hours.

**LDL cholesterol**

Lipoproteins which are combinations of lipids (fats) and proteins are the form in which lipids are transported in the blood. The low-density lipoproteins transport cholesterol from the liver to the tissues of the body. LDL cholesterol is therefore considered the “bad” cholesterol.

**Leg**

In popular usage, the leg extends from the top of the thigh down to the foot. However, in medical terminology, the leg refers to the portion of the lower extremity from the knee to the ankle.

**Lipid**

Another word for “fat”. (Please see the various meanings of Fat.) A lipid is more formally defined as a substance such as a fat, oil or wax that dissolves in alcohol but not in water. Lipids contain carbon, hydrogen and oxygen but have far less oxygen proportionally than carbohydrates.

**Lipoproteins**

Complexes of lipid and protein, they way lipids travel in the blood.

**Lumen**

A luminous term referring to the channel within a tube such as a blood vessel or to the cavity within a hollow organ such as the intestine. Lumen is a luminous term because it is Latin for light, including the light that comes through a window. When a hollow organ is cut across, you can see light through the space that has been opened. So the word “lumen” came to mean this space.

**Lungs**

The lungs are a pair of breathing organs located with the chest which remove carbon dioxide from and bring oxygen to the blood. There is a right and left lung.

**Malaise**

A vague feeling of discomfort, one that cannot be pinned down but is often sensed as “just not right.”

**Mortality**

A fatal outcome or, in one word, death. The word “mortality” is derived from “mortal” which came from the Latin “mors” (death). The opposite of mortality is, of course, immortality. Mortality is also quite distinct from morbidity (illness).

**Muscle**

Muscle is the tissue of the body which primarily functions as a source of power. There are three types of muscle in the body. Muscle which is responsible for moving extremities and external areas of the body is called “skeletal muscle.” Heart muscle is called “cardiac muscle.” Muscle that is in the walls of arteries and bowel is called “smooth muscle.”

**Myocardial infarction**

A heart attack. Abbreviated MI.

**National Cholesterol Education Program**

NCEP. A program designed to reduce illness and death from coronary heart disease (CHD) in the US by reducing the percentage of Americans with high blood cholesterol. Through educational efforts directed at health professionals and the public, the NCEP aims to raise awareness and understanding about high blood cholesterol as a risk factor for CHD and the benefits of lowering cholesterol levels as a means of preventing CHD. NCEP was begun by the National Heart, Lung and Blood Institute (NHLB) of the National Institutes of Health (NIH) in November 1985.

**Nausea**

Nausea, is the urge to vomit. It can be brought by many causes including, systemic illnesses, such as influenza, medications, pain and inner ear disease. When nausea and/or vomiting are persistent, or when they are accompanied by other severe symptoms such as abdominal pain, jaundice, fever, or bleeding, a physician should be consulted.

**Neck**

The part of the body joining the head to the shoulders. Also, any narrow or constricted part of a bone or organ that joins its parts as, for example, the neck of the femur bone.

**Nicotine**

An alkaloid (a nitrogen-containing chemical) made by the tobacco plant or produced synthetically. In the plant kingdom, nicotine is not restricted to tobacco but is widespread. The tobacco plant, *Nicotiana tabacum*, belongs to the nightshade family,

which also includes potatoes, tomatoes, eggplant and red peppers. All contain nicotine, However, the concentration of nicotine in those vegetables is far lower than the level in tobacco. Nicotine has powerful pharmacologic effects (including increased heart rate, heart stroke volume, and oxygen consumption by the heart muscle) as well as powerful psychodynamic effects (such as euphoria, increased alertness, and a sense of relaxation). As is now well known, nicotine is also powerfully addictive. When someone becomes habituated to nicotine and then stops using it, they experience the symptoms of withdrawal, including anxiety, irritability, restlessness, shortened attention span and an intense, sometimes irresistible, craving for nicotine.

### **Onset**

In medicine, the first appearance of the signs of symptoms of an illness as, for example, the onset of rheumatoid arthritis. There is always an onset to a disease but never to the return to good health. The default setting is good health.

### **Oxygen**

A colorless, odorless and tasteless gas that makes up about 20% of the air we breathe (and at least half the weight of the entire solid crust of the earth) and which combines with most of the other elements to form oxides. Oxygen is essential to human, animal and plant life.

### **Pacemaker Implantation**

A pacemaker is a sophisticated electrical device designed to treat slow heart rhythms (bradycardia). One or two wires are passed into the right heart chambers through a vein under the collarbone and connected to the pacemaker, which contains a battery and the circuitry needed to interact with your own heart rhythm. The device is tucked into a small pouch beneath the skin and can last from 5 to 10 years, depending on how much your heart relies on it. The procedure lasts an hour or two and is performed with sedation and a local anesthetic.

### **Pain**

An unpleasant sensation that can range from mild, localized discomfort to agony. Pain has both physical and emotional components. The physical part of pain results from nerve stimulation. Pain may be contained to a discrete area, as in an injury, or it can be more diffuse, as in disorders like fibromyalgia. Pain is mediated by specific nerve fibers that carry the pain impulses to the brain where their conscious appreciation may be modified by many factors.

### **Percutaneous**

Through the skin, as in percutaneous biopsy.

### **Percutaneous transluminal coronary angioplasty**

PTCA. The use of a balloon-tipped catheter to enlarge a narrowed artery.

### **Placebo**

A “sugar pill” or any dummy medication or treatment.

**Placebo-controlled**

A term used to describe a method of research in which an inactive substance (a placebo) is given to one group of participants, while the treatment (usually a drug or vaccine) being tested is given to another group. The results obtained in the two groups are then compared to see if the investigational treatment is more effective than the placebo.

**Plaque**

A semi-hardened accumulation of substances from fluids that bathe an area.

**Prevalence**

The proportion of individuals in a population having a disease. Prevalence is a statistical concept referring to the number of cases of a disease that are present in a particular population at a given time.

**Probability**

The likelihood that something will happen. For example, a probability of less than .05 indicates that the probability of something occurring by chance alone is less than 5 in 100, or 5 percent. This level of probability is usually taken as the level of biologic significance, so a higher incidence may be considered meaningful. The abbreviation for probability is P.

**Prognosis**

1. The expected course of a disease 2. The patient's chance of recovery.

**Progressive**

Increasing in scope or severity. Advancing. Going forward. In medicine, a disease that is progressive is going from bad to worse.

**Proteins**

Large molecules composed of one or more chains of amino acids in a specific order determined by the base sequence of nucleotides in the DNA coding for the protein.

**PTCA**

Percutaneous transluminal coronary angioplasty. A procedure with a balloon-tipped catheter to enlarge a narrowing in a coronary artery. Often just called angioplasty.

**Pulmonary**

Having to do with the lungs.

**Pulmonary embolism**

The obstruction of the pulmonary artery or a branch of it leading to the lungs by a blood clot, usually from the leg, or foreign material causing sudden closure of the vessel.

**Radio-frequency Ablation**

This technique makes it possible for many patients to be cured of tachycardia, or rapid heart rhythm disturbance. Prior to the introduction of ablation therapy, patients either faced open-heart surgery or a lifetime of taking heart rhythm medicines. Once the tachycardia circuit is located, high energy radio waves are delivered through the tip of an ablation catheter, causing a small, controlled burn of the heart tissue involved in the arrhythmia or irregular heartbeat, thereby cutting the circuit.

**Random**

The process by which an outcome is determined solely by chance, for example, by a coin flip.

**Randomized**

The use of chance alone to assign the participants in an experiment or trial to different groups in order to fairly compare the outcomes with different treatments.

**Randomized controlled trial**

(RCT) A study in which people are allocated at random (by chance alone) to receive one of several clinical interventions. One of these interventions is the standard of comparison or control. The control may be a standard practice, a placebo (“sugar pill”), or no intervention at all. Someone who takes part in a randomized controlled trial (RCT) is called a participant or subject. RCTs seek to measure and compare the outcomes after the participants receive the interventions. Because the outcomes are measured, RCTs are quantitative studies.

**Recurrent**

Back again. A recurrent fever is a fever that has returned after an intermission: a recrudescent fever.

**Renal Angiogram**

A moving X-ray image of the blood vessels in the kidneys, using a catheter and dye to track blood flow and identify blockages.

**Reperfusion**

The restoration of blood flow to an organ or tissue. After a heart attack, an immediate goal is to quickly open blocked arteries and reperfuse the heart muscles. Early reperfusion minimizes the extent of heart muscle damage and preserves the pumping function of the heart.

**Resuscitation**

The procedure of restoring to life, as in cardiopulmonary resuscitation (CPR).

**Rupture**

A break or tear in any organ (such as the spleen) or soft tissue (such as the Achilles tendon). Rupture of the appendix is more likely among uninsured and minority children when they develop appendicitis.

**Saturated fat**

A fat that is solid at room temperature and comes chiefly from animal food products. Some examples are butter, lard, meat fat, solid shortening, palm oil, and coconut oil. These fats tend to raise the level of cholesterol in the blood.

**Sensation**

In medicine and physiology, sensation refers to the registration of an incoming (afferent) nerve impulse in that part of the brain called the sensorium, which is capable of such perception. Therefore, the awareness of a stimulus as a result of its perception by sensory receptors.

**Shock**

In medicine, shock is a critical condition brought on by a sudden drop in blood flow through the body. There is failure of the circulatory system to maintain adequate blood flow. This sharply curtails the delivery of oxygen and nutrients to vital organs. It also compromises the kidney and so curtails the removal of wastes from the body. Shock can be due to a number of different mechanisms including not enough blood volume (hypovolemic shock) and not enough output of blood by the heart (cardiogenic shock). The signs and symptoms of shock include low blood pressure (hypotension), overbreathing (hyperventilation), a weak rapid pulse, cold clammy grayish-bluish (cyanotic) skin, decreased urine flow (oliguria), and mental changes (a sense of great anxiety and foreboding, confusion and sometimes, combativeness).

**Shortness of breath**

Difficulty in breathing. Medically referred to as dyspnea. Shortness of breath can be caused by respirator (breathing passages and lungs) or circulatory (heart and blood vessels) conditions.

**Septal Defect Repair for Patent Foramen Ovale**

The foramen ovale is a small hole in the wall between the atria (upper heart chambers) that helps speed the travel of blood through the heart during fetal circulation. When this opening fails to close properly after birth, a catheter can be used to implant a closure device to cover the hole.

**Spasm**

A brief, automatic jerking movement. A muscle spasm can be quite painful, with the muscle clenching tightly. A spasm of the coronary artery can cause angina. Spasms in various types of tissue may be caused by stress, medication, over-exercise, or other factors.

**Statins**

A class of drugs that lower cholesterol.

**Stress**

Forces from the outside world impinging on the individual. Stress is a normal part of life that can help us learn and grow. Conversely, stress can cause us

**Stenting (Coronary, Peripheral PTA, Renal)**

A tiny, metal mesh tube called a stent is placed inside a narrow or blocked artery and opened with an angioplasty balloon. The stent is left inside to prop open the arterial walls and increase blood flow.

**Stroke**

The sudden death of some brain cells due to a lack of oxygen when the blood flow to the brain is impaired by blockage or rupture of an artery to the brain. A stroke is also called a Cerebrovascular accident or, for short, a CVA.

**Substance**

1. Material with particular features, as a pressor substance. 2. The material that makes up an organ or structure. Also known in medicine as the substantia. 3. A psychoactive drug as, for example, in substance abuse.

**Surgery**

The word “surgery” has multiple meanings. It is the branch of medicine concerned with diseases and conditions which require or are amenable to operative procedures. Surgery is the work done by a surgeon.

**Sweat**

A colorless transparent acidic fluid with a distinctive odor secreted by the small tubular sudoriferous (sweat) glands situated within the skin and under it in the subcutaneous tissue. The sweat glands discharge their fluid through tiny openings in the surface of the skin.

**Sweating**

The act of secreting fluid from the skin by the sweat (sudoriferous) glands. These are small tubular glands situated within and under the skin (in the subcutaneous tissue). They discharge by tiny openings in the surface of the skin.

**Symptom**

Any subjective evidence of disease. Anxiety, lower back pain, and fatigue are all symptoms. They are sensations only the patient can perceive. In contrast, a sign is objective evidence of disease. A bloody nose is a sign. It is evident to the patient, doctor, nurse and other observers.

**Therapy**

The treatment of disease.

**Thrombolysis**

Thrombolytic therapy involves the injection of clot-dissolving medications into a blood vessel. These medications can be delivered to the area of a clot through a catheter, which may also carry special attachments to mechanically break up the clot.

**Tilt Table Testing**

A tilt table study is used to determine the cause of fainting spells or syncopal episodes. Prior to the test, an IV line is inserted. The patient is then continuously monitored for changes in heart rate or rhythm and blood pressure. The patient is placed on a table and secured in case of fainting. The table is tilted 60 to 80 degrees upright and the patient is monitored for up to 40 minutes. A medication may be used during testing to stimulate the patient's abnormal reflex. The patient's response to tilt table testing, including symptoms of fainting, EKG strips, and blood pressure response, will determine further therapy.

**Tobacco**

A south American herb, formally known as *Nicotiana tabacum*, whose leaves contain 2-8% nicotine and serve as the source of smoking and smokeless tobacco.

**Tongue**

The tongue is a strong muscle anchored to the floor of the mouth. It is covered by the lingual membrane which has special areas to detect tastes.

**Toothache**

Pain in or near a tooth. Also called odontalgia. The most common cause of a toothache is a dental cavity. The second most common cause is gum disease. Toothache can be caused by a problem that does not originate from a tooth or the jaw.

**Variant angina**

Chest pain due to coronary artery spasm, a sudden constriction of a coronary artery (one of the vessels that supply the heart muscle with blood rich in oxygen) depriving the heart muscle (myocardium) of blood and oxygen. This is also called Prinzmetal angina.

**Vascular**

Relating to the blood vessels of the body. The blood vessels of the body, as a group, are referred to as the vascular system.

**Ventricular**

Pertaining to the ventricles, the lower chambers of the heart, as in ventricular fibrillation and ventricular septal defect.

**Ventricular fibrillation**

An abnormal irregular heart rhythm whereby there are very rapid uncoordinated fluttering contractions of the lower chambers (ventricles) of the heart. Ventricular fibrillation disrupts the synchrony between the heartbeat and the pulse beat. Ventricular fibrillation is most commonly associated with heart attacks or scarring of the heart

muscle from previous heart attack. It is life threatening. Ventricular fibrillation is most commonly associated with heart attacks or scarring of the heart muscle from previous heart attack. It is life threatening.

### **Vessel**

A tube in the body that carries fluids: blood vessels or lymph vessels.

### **VSD Repair**

A ventricular septal defect (V) is a hole in the wall between the left and right ventricles (lower heart chambers). Non-surgical catheterization treatments involve the implantation of a small closure device. A special catheter positions the device so that two discs cover both sides of the hole. Over time, heart tissue grows over the implant.

### **Women's Health Initiative**

A long-term national health study that focuses on strategies for preventing heart disease, breast and colorectal cancer and osteoporosis in postmenopausal women. This 15 year project sponsored by the National Institutes of Health (NIH) involves over 161,000 women aged 50-79. The WHI Clinical Trial and Observational Study has three study components.

### **X-ray**

1. High-energy radiation with waves shorter than those of visible light. X-rays possess the properties of penetrating most substances (to varying extents), of acting on a photographic film or plate (permitting radiography), and of causing a fluorescent screen to give off light (permitting fluoroscopy). In low doses X-rays are used for making images that help to diagnose disease, and in high doses to treat cancer. Formerly called a Roentgen ray. 2. An image obtained by means of X-rays.