

## GLOSSARY

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### NOTE TO THE READER

Many of the words listed in the *Glossary* have more than one definition. The definitions presented here are limited to how the words are used in the context of discussing lung cancer.

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**abdomen** – the trunk of the body below the ribs; the area of the body containing the stomach, liver, spleen, intestines, and other organs

**accelerated hyperfractionation** – a radiation treatment schedule that involves two to three treatments per day over a shorter timeframe than routine radiotherapy

**adjuvant** – a secondary treatment added to enhance the effects of a primary treatment

**adjuvant therapy** – treatment given after the primary treatment to increase the chance of cure

**adrenocorticotrophic hormone (ACTH)** – a hormone normally produced by a small structure in the brain called the pituitary gland; ACTH acts on the adrenal glands stimulating them to produce and release steroid hormones called glucocorticoids; elevated in paraneoplastic Cushing syndrome

**advance care planning** – working with your health care providers to plan for the kind of medical care you want and do not want at the end of your life

**advance directive** – legal document that outlines end-of-life medical care choices

**allied health professionals** – non-physician members of the health care team including nurses, respiratory therapists, pharmacists, radiology technicians, laboratory technicians, and others

**allopathic physician** – a medical doctor; doctor who holds an MD degree

**alopecia** – hair loss

**alternative therapy** – CAM treatment used instead of conventional treatment

**alveoli** – tiny air sacs at the end of the airways in the lungs

**analgesic** – pain relieving medicine

**anecdotal reports** – reports on experience with a particular medicine or treatment outside of a controlled, clinical trial

**anemia** – a condition in which the number of red blood cells or the amount of hemoglobin in the blood is abnormally low

**angiogenesis** – the process of growing new blood vessels

**anorexia** – loss of appetite

**antiangiogenic compounds** – substances that slow or inhibit the growth of new blood vessels (angiogenesis)

**antibodies** – proteins manufactured by immune cells that attach to specific sites on cells marking them for destruction by the immune system

**anticoagulant** – a medicine used to prevent the formation or growth of blood clots

**antidiuretic hormone (ADH)** – a hormone normally released into the body by a small gland in the brain called the pituitary gland; ADH acts on the kidneys to help limit the loss of fluid from the body by decreasing urine volume; elevated in the paraneoplastic syndrome of inappropriate antidiuretic hormone (SIADH)

**antineoplastons** – small protein molecules (called peptides) that were first described by Dr. Stanislaw R. Burzynski in 1976; Dr. Burzynski reports these peptides act to “normalize” cancer cells

**antioxidants** – any of several different chemicals used by the body to neutralize free radicals and keep them from causing cell damage

**aorta** – the large artery that carries oxygen-rich blood away from the heart where it will be distributed throughout the body by smaller blood vessels of the circulatory system

**apex (of the lung)** – the top part of the lung in the upper chest under the collar bone

**apoptosis** – a series of reactions inside a cell that lead to normal cell death

**arteriole** – an intermediate-sized blood vessel that carries oxygen-rich blood to body tissues

**artery** – a large blood vessel that carries oxygen-rich blood to body tissues

**atelectasis** – poor inflation of an area of the lung

**atria (airway atria)** – the smallest airways of the lungs; the atria lead to the alveoli

**asthenia** – weakness

**autofluorescence bronchoscopy** – a modified bronchoscopy procedure that uses fluorescent light to detect potentially cancerous areas of the airways

**base (of the lung)** – the broad, lower end of the lung that sits on the diaphragm

**benign** – in oncology, a tumor or condition that is non-cancerous

**biological response modifiers** – drugs used to stimulate or induce one or more of the body's functions, especially immune functions

**biopsy** – the process of obtaining a tissue sample for diagnostic purposes

**blinded trial** – a clinical trial in which the participants are unaware of what specific drug or treatment they are receiving; in a double-blind trial, neither the participants nor their doctors are aware of what specific drug or treatment each patient is receiving

**bone scan** – a nuclear medicine test in which a radioactively labeled substance is injected into the blood stream where it is taken up by actively dividing cells; areas that have taken up large amounts of the test substance show up as hot spots on the scan; hot spots in the bones may indicate metastatic cancer

**brachytherapy** – radiotherapy delivered within the body

**bronchial tree** – the branching system of airways in the lungs

**bronchial washings** – liquid that is introduced and then removed from the airways during a bronchoscopy procedure; the liquid can be sent to the laboratory and checked for the presence of cancer cells

**bronchiogenic cancer** – another term for lung cancer; term referring to lung cancers that arise from the epithelial cells that line the airways of the lungs; also known as bronchiogenic carcinoma

**bronchiogenic carcinoma** – another term for lung cancer; term referring to lung cancers that arise from the epithelial cells that line the airways of the lungs; also known as bronchiogenic cancer

**bronchiole** – small airways of the lungs; part of the bronchial tree

**bronchopulmonary segment resection** – a lung sparing operation that involves removal of only the section or segment of the lung lobe that contains the cancerous tumor; also known as segmentectomy

**bronchoscopy** – a procedure that involves putting a small, flexible tube called a bronchoscope into the larger airways of the lungs; the bronchoscope allows the doctor to see the inside the airways and take tissue samples

**cachexia** – substantial weight loss that involves not only fat but non-fatty tissues of the body such as muscle and bone; cachexia is usually accompanied by loss of appetite and weakness

**calorie** – a measurement of the energy content of food

**capillary** – the smallest blood vessels of the circulatory system

**carcinoembryonic antigen (CEA)** – a substance present in elevated amounts in the blood of smokers and people with lung, colon, bladder, and stomach cancer; a non-specific epithelial cell tumor marker

**carcinogen** – a substance capable of causing cancer

**carcinoma** – cancer that arises from epithelial cells (skin cells or the cells that line or cover internal organs of the body)

**cardiorespiratory system** – the joint work of the heart and lungs that brings oxygen to cells and rids them of excess carbon dioxide

**carina** – the area where the trachea splits into the right and left main bronchi

**cell** – the tiny structure that is the smallest unit of all plant and animal life; all the tissues of the human body are made up of cells

**cell differentiation** – the maturation process of cells in which they become specialized to perform specific functions; as cells differentiate, they take on the appearance of mature cells

**cell proliferation** – the processes of cell growth and division that lead to new cells; uncontrolled cell proliferation is one of the characteristics of cancer cells

**chemonaïve** – term referring to people who have not had previous chemotherapy for their cancer

**chemoprevention** – the use of specific substances to reverse, suppress, or prevent cancer

**chromosomes** – the part of the cell that contains its genetic information; human cells have 46 chromosomes (23 pairs)

**chronic bronchitis** – a condition of persistent inflammation of the airways; associated with long-term smoking and decreased pulmonary function

**chronic obstructive pulmonary disease (COPD)** – persistent, progressive lung disorder characterized by inflammation of the airways, loss of air sacs, and decreased lung function; often associated with long-term smoking

**complementary therapy** – a treatment that is used in addition to rather than in place of conventional treatment

**complete response** – the disappearance of all signs of cancer in response to treatment

**complex carbohydrates** – food matter made up of chemically linked sugars (carbohydrates); includes breads, pasta, grains, beans, and other foods

**computer assisted diagnosis (CAD)** – the process of using computer programs to aid in the reading of digital radiographic images with the intention of improving accuracy and reproducibility

**concurrent** – when two treatments such as chemotherapy and radiotherapy are given at the same time rather than one followed by the other

**confidence interval** – a statistical term; a range of values that is reasonably certain to contain the true value

**contralateral lymph nodes** – in lung cancer, lymph nodes on the side of the chest opposite the primary tumor

**control arm** – the group of people in a clinical trial that receive standard treatment or a placebo

**cortisol** – a hormone produced by the adrenal glands; elevated in paraneoplastic Cushing syndrome

**cryoablation** – the use of very cold temperatures to kill cancerous tissue with little damage to surrounding healthy tissues

**CT scan** – an imaging study which utilizes an x-ray beam that moves in circles around the length of the body to create three dimensional images

**cupping** – an acupuncture-related treatment that involves stimulating acupuncture points by applying suction using a metal, wood, or glass jar in which a partial vacuum has been created; the technique causes blood to pool at the cupped site stimulating the acupuncture point

**curative intent** – cancer therapy used to try to cure the disease

**Cushing syndrome** – in oncology, a paraneoplastic syndrome caused by an ACTH-like hormone produced by cancer cells that stimulates abnormally high cortisol production

**cytokines** – naturally occurring proteins that act as messengers and regulators of the immune system

**cytotoxic drug** – a medication that is detrimental or destructive to cells; sometimes used interchangeably with the word chemotherapy

**daughter cells** – two cells that result when a single cell divides; normally, the daughter cells are exact copies of the original cell

**deep venous thrombosis** – a blood clot in the deep veins of the legs, and less frequently, the arms

**deoxyribonucleic acid (DNA)** – the chemical substance that chromosomes and genes are made of; DNA is the substance that carries genetic information in humans

**digestive system** – the body system that functions to breakdown food into its essential nutrients to be used for energy and tissue building; the digestive system includes the stomach, small intestine, and large intestine; the liver and pancreas are also involved in digestive processes

**digital chest x-ray** – a chest x-ray that collects an image of the chest with a computerized detector instead of a piece of film as is done with a conventional chest x-ray; the use of the detector instead of film allows for sharper, clearer images

**digital clubbing** – rounding of the ends of the fingers, and sometimes the toes; can be a symptom of lung cancer, but is also associated with other conditions

**diplomate** – designation given to doctors by a certifying or professional organization to indicate having met specific educational and/or training criteria

**dose-limiting side effects** – severe physical side effects that can be potentially life-threatening and may make it necessary to alter the treatment dose and/or schedule; in extreme cases, treatment may need to be stopped altogether

**dysphagia** – difficult or painful swallowing

**dyspnea** – difficult or painful breathing

**early micrometastasis** – process in which cancer cells break off from the original tumor early in the growth process and travel to distant sites in the body; often not seen on routine x-rays and scans because the cancer has not yet grown to a detectable size

**edema** – swelling of the soft tissue caused by an abnormal accumulation of fluid

**embolization** – blockage of an artery by a clot or foreign material; intentional embolization can be done as treatment to block the flow of blood to a tumor

**embolus** – a plug blocking a blood vessel; may be a piece of a blood clot, bacteria, or another foreign substance

**emphysema** – a disease in which the air sacs of the lungs lose their elasticity resulting in a loss of breathing capacity

**endoscope** – a rigid instrument that is surgically introduced into the body to visualize the internal organs

**epidermoid carcinoma** – another name for squamous cell carcinoma; one form of non-small cell lung cancer

**epithelial cells** – the cell type found in skin, and the linings and coverings of organs in the body; the cell type that lines the airways of the lungs and gives rise to small cell and non-small cell lung cancer

**erythropoietin** – a hormone produced by the kidneys that stimulates red blood cell production

**esophagitis** – inflammation of the esophagus; a possible side effect of radiation therapy to the chest; can cause difficulty swallowing and eating

**esophagus** – the tube-like structure that carries food from the mouth to the stomach

**estate planning** – making plans for how you want your personal property and money distributed after your death

**executor** – the person named in your will who is responsible for distributing your property according to the instructions of the will after your death; also known as a personal representative

**exhale** – to breathe out

**experimental treatment arm** – the group of people in a clinical trial that receive one of the experimental treatments being tested

**exploratory surgery** – in cancer, a surgical procedure during which the surgeon examines the tissues and lymph nodes around a tumor to determine the extent of disease

**external beam radiation** – radiotherapy delivered from outside the body

**fatigue** – a persistent or overwhelming feeling of tiredness

**fine needle aspiration biopsy (FNA)** – tissue sampling technique in which a needle is introduced from outside the body into the tissue in question; the tissue sample is pulled out through the needle

**first line treatment** – the first therapy used to treat cancer

**fluoroscopy** – an x-ray technique in which images are projected on a fluorescent screen

**fraction** – the dose of radiation given in each treatment as part of the total dose of radiation given to treat cancer

**gene** – a piece of DNA that encodes for a specific hereditary trait

**gene therapy** – cancer treatment that aims to interrupt the cancerous process by replacing lost or damaged genes, or blocking the expression of damaged genes

**glucocorticoids** – hormones produced by the adrenal glands; elevated in paraneoplastic Cushing syndrome

**granulocyte** – term referring to a white blood cell with a granular appearance; important in fighting bacterial infections

**granulocytopenia** – an abnormally low number of granulocytes in the blood stream; one of the problems associated with myelosuppression caused by chemotherapy

**group model health maintenance organization (HMO)** – a type of HMO in which the organization owns and operates its own offices and health care facilities; doctors working at these facilities are employees of the HMO

**guaranteed renewable policy** – a health insurance policy that has a stipulation stating the insurer cannot refuse to renew your policy as long as you pay your premiums on time; also called a noncancellable policy

**health care power of attorney** – granting someone the right to make medical choices for you if you are unable to speak for yourself; also known as medical power of attorney

**helical CT scan** – a newer CT scanner capable of x-raying the entire chest in 20-30 seconds while the patient holds his or her breath; the continuous nature of the data collection by the computer and the reduced effects of movement make CT scans performed with helical/spiral machines clearer, and better able to detect small tumors

**hematopoietic growth factors** – substances that stimulate bone marrow production of blood elements including red blood cells, white blood cells, and platelets

**hemoptysis** – the condition of coughing up blood or blood-streaked phlegm

**hilar lymph nodes** – lymph nodes in the area of the lung where the main bronchus enters

**hilum** – the area of the lung where the mainstem bronchus and the large pulmonary arteries and veins enter and exit the lung

**holistic medicine** – a philosophy in certain medical disciplines, especially complementary and alternative medicine, that states one must treat the whole person rather than just the symptoms he or she is experiencing

**homeostatic mechanism** – any of a number of processes that keep the substances of the body in normal balance

**Horner's syndrome** – a triad of symptoms including a drooping eyelid, a small pupil in the affected eye, and lack of sweating on the affected side of the face; this syndrome can accompany a Pancoast tumor

**hospice** – a system of care for terminally ill people and their families

**hypercalcemia** – high blood calcium

**hyperfractionation** – radiation therapy that is given two to three times per day over a period of days to weeks

**hypertrophic osteoarthropathy** – a condition in which the outer layer of the long bones of the arms and/or legs are inflamed causing pain and swelling in the ankles, wrists, and knees; may be associated with digital clubbing; may be a sign of lung cancer but is also associated with other conditions

**immunoconjugates** – monoclonal antibodies that have chemotherapy drugs attached to them

**immunotherapy** – a broad term that refers to a variety of ways the immune system might be used to treat cancer

**immunotoxins** – monoclonal antibodies that have a toxin (a cell destroying substance) attached to them; immunotherapeutic agents used to treat cancer

**individual practice association (IPA)** – a health maintenance organization in which physician groups or individual doctors in private practice have contracts with the HMO to care for a specific number of HMO members

**induction therapy** – treatment designed to be used as a first step toward shrinking the cancer; induction therapy is usually followed by additional therapy to eliminate whatever cancer remains

**inhale** – to breathe in

**initial work-up** – in cancer treatment, the tests and procedures done before treatment begins to determine a person's overall health status and begin the staging process

**integrated medicine** – the combined use of western medicine and complementary and alternative medicine

**interventional radiologist** – doctor who has special training to diagnose and treat illnesses and conditions using miniaturized tools while watching the procedure on X-ray or other imaging equipment

**intestate estate** – the estate (assets) of a person who died without a will or other estate planning document; the person's assets will be distributed according to state law

**intraoperative brachytherapy** – placing small radioactive pellets in specific sites in the chest during lung cancer surgery

**intrathoracic** – within the chest cavity

**ionizing radiation** – high energy waves that can disrupt the atoms and molecules of the body; the form of radiation used in radiation therapy for cancer

**ipsilateral lymph nodes** – in lung cancer, regional lymph nodes on the same side of the chest as the primary tumor

**keratin** – a substance produced by some epithelial cells; the main substance that makes up hair and nails

**lactase** – the digestive enzyme that breaks down milk sugar

**last will and testament** – see *will*

**lean body mass** – the non-fatty tissues of the body including the muscles and bones

**left atrium** – the chamber of the human heart that receives oxygenated blood from the lungs

**left ventricle** – the chamber of the human heart that sends oxygenated blood from the lungs to the body

**leukocytosis** – condition of an abnormally high level of white blood cells

**leukopenia (leucopenia)** – condition of an abnormally low level of white blood cells; one of the myelosuppressive effects of some chemotherapy drugs

**living will** – an advance directive that applies specifically to a person who has a terminal illness

**lobar bronchi** – large airways that transport air to the individual lobes of the lungs

**lobe (of the lung)** – sections of the lungs; the right lung has three lobes and the left lung has two lobes

**lobectomy** – surgical removal of a single lobe of a lung; a surgical procedure used to treat localized lung cancer

**local recurrence** – the return of a tumor at the original site

**lymph** – the fluid that circulates through the lymphatic vessels; made up of excess tissue fluid, proteins, and cells of the immune system

**lymph node** – a compact collection of immune cells, primarily lymphocytes; structures in the lymphatic system that filter out foreign particles such as viruses, bacteria, and cancer cells

**lymphatics/lymphatic vessels** – thin walled structures that carry lymph fluid throughout the body

**malignant** – a term used to refer to cancerous cells or tumors; malignant cells have uncontrolled growth processes, and can invade neighboring tissues or spread to distant sites in the body

**margins (surgical)** – in cancer, the edges of tissues removed at surgery; the surgical margins are examined in the laboratory to determine if there are cancer cells present

**matrix metalloproteases (MMPs)** – a group of naturally occurring enzymes that help break down the structures between cells to make room for new, healthy tissue to grow

**matrix metalloprotease inhibitors (MMPIs)** – drugs that block the actions of matrix metalloproteases (MMPs)

**mean** – the average value in a set of measurements

**median** – the middle value in a set of measurements

**medical oncologist** – a doctor who specializes in the treatment of cancer using non-surgical techniques

**mediastinal lymph node dissection** – removal of nearly all lymph nodes in the mediastinum during surgical resection of lung cancer

**mediastinal lymph nodes** – lymph nodes in the mediastinum in the center of the chest

**mediastinal lymph node sampling** – removal of multiple lymph nodes in the mediastinum during surgical resection of lung cancer

**mediastinoscopy** – a surgical procedure in which an endoscope is inserted into the mediastinum to visualize the structures and sample the lymph nodes; a common procedure used to stage lung cancer

**mediastinum** – the area in the center of the chest between the lungs; contains the heart and the large blood vessels entering and leaving the heart, the trachea, the esophagus, and several lymph nodes; the lymph nodes of the mediastinum are often checked for cancer in the lung cancer staging process

**meridians** – in Chinese medicine, the pathways through which the qi flows

**metabolism** – the total of all chemical changes that take place in a cell or an organism; changes that use and produce energy; includes the break down and build up of basic materials needed for life-sustaining processes

**metastasis/metastasize** – the process whereby cancer cells break off from the original tumor and travel to distant areas of the body where they begin to grow into new tumors

**micrometastasis** – small numbers of cancer cells that have spread from the original tumor to other parts of the body but are too few to be detected by currently available tests

**mind/body medicine** – the study of the interactions between the mind and body in health and disease

**moxibustion** – the use of heat produced by burning an herb over acupuncture points to stimulate the points or an entire meridian

**MRI scan (magnetic resonance imaging scan)** – an imaging technique that uses a large magnet to produce three dimensional images of the internal structures of the body

**mucin** – a thick, slippery fluid secreted by some glandular epithelial cells

**mucositis** – inflammation of the lining of the mouth, throat, and/or esophagus; a side effect of some chemotherapy and/or radiation therapy

**multimodality therapy** – two or more forms of cancer treatment used together or in succession; usually refers to the use of both chemotherapy and radiation therapy; also called combined modality therapy

**mutation** – any change in the DNA of a cell; certain mutations can lead to cancer

**myelosuppression** – a reduced ability of the bone marrow to produce cellular blood elements including red blood cells, white blood cells, and platelets; a common side effect of chemotherapy

**negative energy balance** – a condition in which the body is using more energy than it is taking in; unintentional weight loss is a symptom of negative energy balance

**neoadjuvant therapy** – treatment given before the primary treatment to increase the chance of cure

**neuroendocrine cells** – specialized nerve cells located throughout the body that secrete hormones into the blood stream where they are delivered to distant target cells and exert their effects; the cells that give rise to carcinoid tumors

**neutropenia** – an abnormally low level of the granulocytes called neutrophils in the blood; a common side effect of chemotherapy

**neutrophils** – one type of the white blood cell group called granulocytes; important in fighting bacterial infections

**oat cell carcinoma** – another name for small cell carcinoma or small cell lung cancer

**off-label use** – the use of a drug for an indication other than those for which it has been approved by the Food and Drug Administration; also known as unapproved indications usage

**oncogene** – a gene that allows or promotes uncontrolled cell growth

**p-value** – a statistical term; a numeric representation of how certain researchers are that their findings are true

**palliative care** – see *palliative therapy*

**palliative therapy** – treatment given to relieve symptoms caused by advanced cancer; it is not curative and does not alter the course of the disease but can significantly improve quality of life

**Pancoast syndrome** – symptoms caused by a Pancoast tumor, which can include pain in the shoulder and/or arm, loss of muscle mass in the arm of the affected side, and/or a drooping eyelid, small pupil, and lack of facial sweating on the affected side

**Pancoast tumor** – non-small cell lung cancer that originates in the upper portion of the lung and extends to other nearby tissues such as the ribs and back bones; also called a pulmonary sulcus tumor

**paraneoplastic syndrome** – signs and symptoms of cancer that are not caused by the tumors themselves, but by substances produced by the tumors; these syndromes can affect various organs of the body and cause a wide variety of signs and symptoms

**parietal pleura** – part of the sac enclosing the lung that is in contact with the inside of the chest wall

**partial response** – a decrease in the size of a tumor or in the extent of cancer in the body in response to treatment

**partial thromboplastin time (PTT)** – a blood test that measures the amount of time it takes for blood to clot; often used to monitor people on heparin anticoagulant therapy

**pathological bone fracture** – a bone break that is not associated with an injury or fall, but is caused by an abnormality in the bone; metastatic bone disease is a common cause of these fractures

**pelvis** – the area of the trunk of the body surrounded by the hips containing the sex organs, bladder, and the end of the intestines

**performance status** – a measure of how well a person is able to perform ordinary tasks and carry out daily activities

**peripheral nerves** – the part of the nervous system beyond the brain and spinal cord

**peripheral neuropathy** – a condition of the nervous system that causes numbness, tingling, burning or weakness; usually begins in the hands or feet and can be caused by certain anticancer drugs

**petechiae** – pinpoint, flat, round, red spots under the skin caused by bleeding from tiny blood vessels in the skin; may be seen if the platelet count drops to a very low level

**pharynx** – the area behind the nose and mouth that leads to the trachea (for air) and the esophagus (for food); commonly thought of as the throat area

**photodynamic therapy** – treatment with drugs that become active when exposed to light; used to kill cancerous and precancerous cells

**pleura** – a thin layer of tissue covering the lungs and lining the interior wall of the chest cavity

**pleural effusion** – an abnormal collection of fluid in the sac around the lung; can be infectious, benign, or malignant

**pleuritic pain** – sharp pain that occurs with breathing; occurs when a lung cancer involves the outer covering of the lung called the pleura; also occurs with other conditions

**pleurodesis** – a procedure for treating pleural effusion that involves draining the pleural fluid and placing a substance called a sclerosing agent in the pleural space to create irritation; the irritation causes the two sides of the pleural sac to stick together leaving no room for a reaccumulation of fluid

**pneumonectomy** – surgical removal of an entire lung

**policy capitation (policy caps)** – a stipulation in a health insurance policy stating the maximum amount of money to be paid over the course of the policy (lifetime cap) or for an illness (per illness cap)

**post-marketing surveillance study** – another term for a phase IV clinical trial

**preclinical testing** – the testing of a new drug or treatment that takes place before testing in people begins; testing that takes place before clinical trials begin; can involve testing in cancer cells grown in the laboratory, animal testing, and other forms of testing

**pre-existing condition** – a medical condition diagnosed before joining a new health insurance plan

**presentation** – the combination of symptoms reported and the physical findings of a patient

**presenting symptoms** – the symptoms a person experiences that cause him or her to seek medical attention

**presumptive stage** – the apparent stage of a person's cancer based on the test results available; a presumptive stage may change as additional tests and/or procedures are performed

**primary tumor** – the original cancerous tumor; the source of cancerous cells that lead to secondary or metastatic tumors

**prognosis** – the likely outcome or course of a disease; the chance of recovery or recurrence

**progressive disease** – cancer that is growing and/or spreading

**prothrombin time (PT)** – a blood test that measures the amount of time it takes for blood to clot; often used to monitor people on warfarin (coumadin) anticoagulant therapy

**protocol** – a treatment action plan; in a clinical trial, the plan which states what the study will do, how, and why

**psycho-oncology** – psychology specialty concerned with the psychological, social, behavioral, and ethical impacts of cancer

**pulmonary artery** – the large blood vessel that carries oxygen-poor blood from the right side of the heart to the lungs

**pulmonary edema** – accumulation of fluid in the lung

**pulmonary vein** – the large blood vessel that carries oxygen-rich blood from the lungs to the left side of the heart

**qi** – in Chinese and eastern medicine, the vital energy that travels through body along internal pathways called meridians

**quality of life** – a person's overall enjoyment of life and sense of well-being; includes the ability to carry on the activities of daily living and to derive enjoyment

**radiation fibrosis** – the formation of scar tissue as a result of radiation therapy

**radiation oncologist** – a doctor who specializes in the use of radiotherapy to treat cancer

**radiation pneumonitis** – inflammation of lung tissue as a result of radiation therapy; can cause coughing, shortness of breath, fever, and pain; may progress to radiation fibrosis

**radiofrequency ablation** – a technique involving the placement of a small wire or electrode into a target tissue and transmitting radio waves to destroy the cells in the area around the electrode

**radioprotectant** – substance that protects healthy tissues from radiation damage without reducing the effectiveness of radiotherapy against cancerous cells

**radiosensitizer** – substances that make cancer cells more susceptible to the effects of radiation

**radiotherapy** – the use of high-energy beams from x-rays, gamma rays, neutrons, and other sources to kill cancer cells and shrink tumors; radiation may come from a machine outside the body (external-beam radiation therapy) or from materials placed inside the body (internal radiation therapy); also called radiation therapy, irradiation, and x-ray therapy

**randomization** – the process in which people enrolled in a clinical trial are assigned by chance to a treatment group

**randomized controlled trial** – a clinical trial in which participants are assigned by chance to receive either an experimental treatment or a standard treatment; a type of clinical trial that is designed to compare the effectiveness and safety of a specific treatment to other treatments or a placebo

**reactive depression** – short-term depression (usually lasting two weeks or less) a person experiences as a reaction to a serious, life-altering event; a normal response to a life-changing event

**red blood cells** – microscopic structures in the blood that carry oxygen and carbon dioxide between the body tissues and the lungs; the component of blood that gives it its characteristic red color

**regional lymph nodes** – term referring to the lymph nodes that receive lymph fluid from a specific area or region of the body; each area of the body has its own regional lymph nodes

**resection** – surgical removal of a diseased tissue or organ

**respiration** – the process whereby cells take up oxygen and give off carbon dioxide; the breathing process

**resuscitation** – medical treatments used to restart the heart if it stops beating and restore breathing if it stops

**right atrium** – the chamber of the human heart that first receives oxygen-poor blood from the body

**right ventricle** – the chamber of the human heart that sends oxygen-poor blood from the heart to the lungs

**route of administration** – how a drug or other substance is given such as by mouth or through an intravenous line

**sclerosing agent** – an irritating substance used in pleurodesis (and other procedures) to cause an inflammatory reaction

**salvage therapy** – treatment given when cancer recurs after an initial response to therapy or when cancer fails to respond to initial therapy

**satellite lesion** – a separate tumor nodule in the same lobe of the lung as a primary tumor; considered stage IIIB disease

**second line treatment** – any form of therapy used after first line cancer therapy

**secondary tumors** – metastatic tumors

**segmental bronchi** – intermediate size airways that transport air in and out of the various segments of each lobe of the lung

**segmentectomy** – a lung sparing operation that involves removal of only the section or segment of the lung lobe that contains the cancerous tumor; also known as bronchopulmonary segment resection

**side effect profile** – the list of possible side effects associated with a specific drug

**signs** – distinct physical findings that can be seen, felt, or measured during an examination

**simulation** – process used to prepare for radiation therapy; the process whereby the target area is precisely located and marked

**sleeve resection** – surgical procedure used to remove tumors in the main airways (the right and left main bronchus); the area with the tumor is removed and the ends on either side are sewn together to re-establish air flow to the affected lung

**sorbitol** – a sugar found naturally in certain fruits such as prunes, pears, peaches, and apples; a natural laxative; used as a sweetener in some reduced calorie foods

**spinal cord compression** – any condition that causes pressure on the spinal cord; in cancer, there is usually damage to one or more of the back bones from metastatic cancer that causes deformity or collapse of the bone which then presses on the spinal cord

**spiral CT scan** – a newer CT scanner capable of x-raying the entire chest in 20-30 seconds while the patient holds his or her breath; the continuous nature of the data collection by the computer and the reduced effects of movement make CT scans performed with helical/spiral machines clearer, and better able to detect small tumors

**sputum** – the thick, slippery fluid secreted by the airways; also known as phlegm

**sputum cytology** – examination of the sputum to look for abnormal cells from the airways

**staging** – in cancer, the process of determining if the cancer has spread beyond the original tumor, and if it has spread, the extent of spread

**stereotactic radiosurgery (SRS)** – a radiation therapy technique for brain tumors that uses a rigid head frame attached to the skull; the frame is used to help aim high-dose radiation beams directly at the tumors while sparing normal brain tissue; also called stereotactic external-beam radiation, stereotactic radiation therapy, and stereotaxic radiosurgery

**stomatitis** – inflammation or irritation of the mucous membranes in the mouth; can be caused by chemotherapy or radiation therapy to the head

**superior vena cava** – the large vein that carries blood from the head, neck, arms, and chest to the heart; may be compressed by a lung tumor causing swelling of the face

**supportive care** – treatments or interventions used to eliminate or reduce symptoms that interfere with quality of life while you are receiving therapy for lung cancer

**supraclavicular lymph nodes** – lymph nodes just above the collarbones

**symptoms** – feelings, pains, or other perceived abnormalities experienced by a patient but that are not measurable or detectable on physical examination

**systemic therapy** – treatment that affects the entire body, usually a medicine that is taken orally or given through an intravenous line

**thoracic surgeon** – a doctor who specializes in surgery of the chest

**thoracoscopy** – surgical procedure in which an endoscope is inserted into the chest space to visualize the structures; tissue samples can be collected during the procedure

**thoracotomy** – major surgical procedure in which the chest is opened and the ribs are spread to expose the heart and lungs

**thrombocytopenia purpura** – condition of abnormally low blood platelets; can cause bruising and/or uncontrolled bleeding

**thrombocytosis** – condition of abnormally high blood platelets; can lead to blood clots

**thrombolytic** – a medication that breaks down blood clots

**thrush** – an overgrowth of yeast, especially in the mouth or throat; can occur in people on chemotherapy or radiation therapy that involves the head

**time to progression** – the length of time a treatment is able to keep a cancer from growing and/or spreading

**TNM classification system** – system that uses characteristics of the tumor (T), regional lymph node involvement (N), and the presence or absence of distant metastasis (M) to divide NSCLC into clinical stages

**tolerance** – in drug treatment, when an effect (desired or undesired) decreases over time while taking the drug as in becoming tolerant to the sedating effects of morphine; can also refer to a situation in which increasing quantities of a drug are needed over time to produce the same effect

**trachea** – the tube-like structure that carries air between the mouth and nose and the lungs

**transthoracic needle biopsy** – procedure in which a needle is inserted through the chest wall into a lung tumor (or other structure) to obtain tissue samples via the needle

**treatment cycle** – in chemotherapy, the length of time over which a drug(s) is given; often involves a period of time off the drug such as taking chemotherapy on day one and three and then having three weeks off (without taking the treatment drug)

**treatment field** – in radiation therapy, the area of the body that will be receiving radiation beams; normal tissues may be included in the treatment field in order to get the radiation to the diseased tissue; also called the treatment port

**treatment naïve** – term referring to people who have not had any previous treatment for their cancer

**tui na** – Chinese therapeutic massage

**tumor** – an abnormal growth in the body; can be benign or malignant

**tumor marker** – substance in the blood that is present only when cancer is present, or is present in highly elevated amounts when cancer is present

**tumor suppressor gene** – a gene that can prevent or block the development of cancer

**ultrasonography** – imaging technique that uses special frequency sound waves to visualize internal organs

**unapproved indications use** – the use of a drug for an indication other than those for which it has been approved by the Food and Drug Administration; also known as off-label use

**vaccine** – a substance that is given to stimulate the immune system to act against a specific target

**vasculitis** – inflammation of the blood vessel, especially the arteries

**vein** – a large vessel of the circulatory system that carries oxygen-poor blood from the tissues toward the heart

**vertebral subluxation** – in chiropractic medicine, the abnormal position of the backbones that lead to malfunctions in the body

**video-assisted thoracoscopy (VATS)** – a thoracoscopy technique in which a tiny video camera is inserted into the chest by a small incision, in addition to the thoroscope; pictures of the chest cavity are projected onto a screen during the procedure to give surgeons a better view of the area

**visceral pleura** – part of the sac enclosing the lung that is in contact with the outer surface of the lung; the most common site of malignant mesotheliomas

**wedge resection** – removal of a wedge-shaped section of tissue surrounding a cancerous lung tumor; performed on growths near the surface of the lung when a more extensive procedure cannot be tolerated

**western medicine** – the standard form of medical treatment practiced by MDs and DOs in the U.S. and Canada

**whole brain radiation therapy (WBRT)** – radiation therapy that involves the whole brain; used to try to prevent metastatic brain tumors or to treat multiple or large established brain tumors

**will** – a written document that directs how your assets (property and money) are to be distributed after your death