

GLOSSARY

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.

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 on 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