

Lung Cancer Glossary of Terms



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Term	Definition
Adenocarcinoma	A slow growing form of non-small cell lung cancer (NSCLC) which usually begins in the outer edges of the lungs and the lining of the bronchi (the air pipe). It accounts for approximately 40% of all lung cancer cases, the most common form of lung cancer ¹
Adjuvant Therapy	Additional cancer treatment given after the primary treatment to lower the risk that the cancer will come back ²
Anti-Angiogenesis Therapy	Angiogenesis is the process of creating new blood vessels and cancerous tumors use this to spread and grow. Anti-angiogenesis therapy (or angiogenesis inhibitors) block blood vessel growth and starve the tumor ³
Antibody	A protein made by plasma cells (a type of white blood cell) in response to an antigen (a substance that causes the body to make a specific immune response). Each antibody can bind to only one specific antigen. The purpose of this binding is to help destroy the antigen. Some antibodies destroy antigens directly. Others make it easier for white blood cells to destroy the antigen. An antibody is a type of immunoglobulin ⁴
Antigen	Any toxin or foreign substance which causes the body to make an immune response against that toxin or foreign substance. Antigens include toxins, chemicals, bacteria, viruses, or other substances that come from outside the body ⁵
Biomarker	A biological molecule found in blood, other body fluids, or tissues that is a sign of a normal or abnormal process, or of a condition or disease. A biomarker may be used to see how well the body responds to a treatment for a disease or condition. Also called molecular marker and signature molecule ⁶
Bispecific Antibody	A type of antibody that can bind to two different antigens at the same time. Bispecific antibodies are being studied in the imaging and treatment of cancer. They are made in the laboratory ⁷
Checkpoint Inhibitors (CPI)	Checkpoint inhibitors are a type of immunotherapy. These drugs block different checkpoint proteins. You might also hear them named after these checkpoint proteins – for example, CTLA-4 inhibitors, PD-1 inhibitors and PD-L1 inhibitors ⁸
Chemotherapy	Traditional or standard chemotherapy uses drugs that are cytotoxic, meaning they can kill tumor cells ⁹
Combined Positive Score (CPS)	Evaluated based on the number of PD-L1 positive cells (tumor, lymphocytes and macrophages) in relation to total tumor cells, and hence allows the capture of tumor and immune cells in a single read ¹⁰
Cytotoxic T Cell	A type of immune cell that can kill certain cells, including foreign cells, cancer cells, and cells infected with a virus. Cytotoxic T cells can be separated from other blood cells, grown in the laboratory, and then given to a patient to kill cancer cells. A cytotoxic T cell is a type of white blood cell and a type of lymphocyte. Also called cytotoxic T lymphocyte and killer T cell ¹¹
Eastern Cooperative Oncology Group (ECOG) Performance Status Scale	Scale used to assess a cancer patient's level of functioning in terms of their ability to care for themselves, daily activity, and physical ability (walking, working, etc.) ¹²

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Epidermal Growth Factor (EGF)	A protein that stimulates cell growth and differentiation by binding to its receptor, EGFR ¹³
Epidermal Growth Factor Receptor (EGFR)	A protein found on certain types of cells that binds to a substance called epidermal growth factor. The epidermal growth factor receptor protein is involved in cell signaling pathways that control cell division and survival. Sometimes, mutations (changes) in the EGFR gene cause epidermal growth factor receptor proteins to be made in higher-than-normal amounts on some types of cancer cells. This causes cancer cells to divide more rapidly ¹⁴
Extensive Stage Small Cell Lung Cancer (ES-SCLC)	Extensive stage is used to describe small cell lung cancer (SCLC) that has spread to other parts of the body such as the opposite lung, bone, brain, or bone marrow. About 2 out of 3 people with SCLC have extensive disease when the cancer is first found ¹⁵
Fragment Crystallizable Receptor (Fc Receptor)	Specific receptors for antibody, named Fc receptors are proteins found on the surface of leukocytes. Fc receptors contribute to the protective functions of the immune system, by binding to antibodies that are attached to infected cells or invading pathogens ¹⁶
Fragment Crystallizable Region (Fc Region)	The crystallizable fragment of an immunoglobulin molecule composed of the constant regions of the heavy chains and responsible for binding to antibody receptors (Fc receptor) on cells and the complement component 1q (C1q) ¹⁷
First-line Therapy	The first treatment given for a disease. It is often part of a standard set of treatments, such as surgery followed by chemotherapy and radiation. When used by itself, first-line therapy is the one accepted as the best treatment. If it doesn't cure the disease or it causes severe side effects, other treatment may be added or used instead. Also called induction therapy, primary therapy, and primary treatment ¹⁸
Immunoglobulin G1 (IgG1)	Is the most abundant IgG subclass in human sera and is important for mediating antibody responses against viral pathogens ¹⁹
Immunotherapy	A form of cancer treatment that uses the body's own immune system to prevent, control and eliminate cancer (also known as immune oncology) ²⁰
Lung Cancer	Cancer that forms in tissues of the lung, usually in the cells lining air passages. The two main types are small cell lung cancer and non-small cell lung cancer. These types are diagnosed based on how the cells look under a microscope ²¹
Metastasis	The spread of cancer from the original tumor site to further parts of the body ²²
Monoclonal Antibody	A type of protein that is made in the laboratory and can bind to certain targets in the body, such as antigens on the surface of cancer cells. There are many kinds of monoclonal antibodies, and each monoclonal antibody is made so that it binds to only one antigen. Monoclonal antibodies are being used in the diagnosis and treatment of many diseases, including some types of cancer. They can be used alone or to carry drugs, toxins, or radioactive substances directly to cancer cells ²³

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Neoadjuvant Therapy	Treatment given as a first step to shrink a tumor before the main treatment, which is usually surgery, is given. Examples of neoadjuvant therapy include chemotherapy, radiation therapy, and hormone therapy. It is a type of induction therapy ²⁴
Non-small Cell Lung Cancer (NSCLC)	Non-small cell lung cancer is a disease in which malignant (cancer) cells form in the tissues of the lung. Approximately 80-85% of lung cancers are NSCLC and are comprised of the subtype's adenocarcinoma, squamous cell carcinoma, and large cell carcinoma ²⁵
Overall Survival (OS)	The length of time from either the date of diagnosis or the start of treatment for a disease, such as cancer, that patients diagnosed with the disease are still alive. In a clinical trial, measuring the OS is one way to see how well a new treatment works ²⁶
Platinum Doublet Chemotherapy	Chemotherapy that contains two cell-killing drugs, one of which contain the chemical platinum. These drugs (such as cisplatin and carboplatin) form highly reactive platinum complexes that bind and crosslink DNA, a double-stranded molecule inside the nucleus of the cell that controls cellular activity. The chemical crosslinking within the DNA prevents cancer cells from growing and causes them to die ²⁷
Programmed Cell Death Protein 1 (PD-1)	A protein found on T cells (a type of immune cell) that helps keep the body's immune responses in check. When PD-1 is bound to another protein called PD-L1, it helps keep T cells from killing other cells, including cancer cells ²⁸
Programmed Cell Death Ligand 1 (PD-L1)	A protein that plays a role in the body's immune system. It can bind to another protein called PD-1. When this happens, the two proteins block the immune system from killing cancer cells ²⁹
Progression Free Survival (PFS)	The length of time during and after the treatment of a disease, such as cancer, that a patient lives with the disease but it does not get worse. In a clinical trial, measuring the PFS is one way to see how well a new treatment works ³⁰
Small Cell Lung Cancer (SCLC)	A rare and fast-growing cancer of small, round lung cells. Approximately 10-15% of all lung cancers are SCLC ³¹
Second-line Therapy	Treatment that is given when initial treatment (first-line therapy) doesn't work or stops working ³²
Standard of Care (SOC)	Treatment that is accepted by medical experts as a proper treatment for a certain type of disease and that is widely used by healthcare professionals. Also called best practice, standard medical care, and standard therapy ³³
Squamous Cell Carcinoma	A slow growing form of NSCLC and the cells are thin and flat. Commonly begins in or next to the bronchi (the air pipe) and is the most common form of lung cancer in men ³⁴
T Cells	T cell, also called T lymphocyte, type of leukocyte (white blood cell) that is an essential part of the immune system. T cells are one of two primary types of lymphocytes that determine the specificity of immune response to antigens (foreign substances) in the body ³⁵

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T Cell Receptor (TCR)	A group of proteins found on T cells (a type of immune cell that recognizes and binds to foreign substances). T cell receptors bind to certain antigens (proteins) found on abnormal cells, cancer cells, cells from other organisms, and cells infected with a virus or another microorganism. This interaction causes the T cells to attack these cells and helps the body fight infection, cancer, or other diseases. Also called TCR ³⁶
Tumor	An abnormal mass of tissue that forms when cells grow and divide more than they should or do not die when they should. Tumors may be benign (not cancer) or malignant (cancer). Benign tumors may grow large but do not spread into, or invade, nearby tissues or other parts of the body. Malignant tumors can spread into, or invade, nearby tissues. They can also spread to other parts of the body through the blood and lymph systems. Also called neoplasm ³⁷
Tumor Objective Response Rate (ORR)	The assessment of the tumor burden after a given treatment in patients with solid tumors and has a long history ³⁸
Tumor Proportion Score (TPS)	Scale used to determine protein expression, the percentage of viable tumor cells showing partial or complete membrane staining at any intensity. The specimen is considered to have PD-L1 expression if TPS \geq 1% and high PD-L1 expression if TPS \geq 50% ³⁹
Tyrosine Kinase	Tyrosine kinases are important mediators of the signaling cascade, determining key roles in diverse biological processes like growth, differentiation, metabolism and apoptosis in response to external and internal stimuli. Recent advances have implicated the role of tyrosine kinases in the pathophysiology of cancer ⁴⁰
Tyrosine Kinase Inhibitors (TKIs)	A substance that blocks the action of enzymes called tyrosine kinases. Tyrosine kinases are a part of many cell functions, including cell signaling, growth, and division. These enzymes may be too active or found at high levels in some types of cancer cells, and blocking them may help keep cancer cells from growing. Some tyrosine kinase inhibitors are used to treat cancer. They are a type of targeted therapy ⁴¹
Vascular Endothelial Growth Factor (VEGF)	VEGF initiates proliferation and blood vessel sprouting and guides growing vessels. At the same time VEGF induces expression of Dll4 that blocks excessive proliferation and sprouting ⁴²



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