

Glossary of Cancer Terms

Absolute neutrophil count (ANC)

The actual count of the white blood cells (also called polys or granulocytes) that engulf and destroy bacteria. There is some concern about infection if the count is less than 1,000.

Alopecia

Partial or complete loss of hair. This may result from radiation therapy to the head (hair might not completely return after therapy) or from certain chemotherapeutic agents (hair almost always returns).

Analgesic

A drug that relieves pain. Analgesics may be mild (aspirin or acetaminophen), stronger (codeine) or very strong (morphine). There are also a large number of mild, moderate or strong synthetic analgesics.

Anemia

Having less than the normal amount of hemoglobin or red cells in the blood. This may be due to bleeding, lack of blood production by the bone marrow, or to the brief survival of blood already manufactured. Symptoms include tiredness, shortness of breath and weakness.

Antiemetics

Drugs given to prevent or minimize nausea and vomiting.

Biopsy

The surgical removal of a small portion of tissue for diagnosis. In almost all cases a biopsy diagnosis of cancer is required before appropriate and correct planning can take place. In some cases, a needle biopsy may be enough for diagnosis, but in others, the removal of a pea-sized wedge of tissue is needed. In many cases, the biopsy may be the first step of the definitive surgical procedure that not only proves the diagnosis, but attempts to cure the cancer by completely removing the tumor.

Bone marrow

A soft substance found within the bone cavities. Marrow is composed of developing red cells, white cells, platelets and fat. Some forms of cancer can be diagnosed by examining the bone marrow.

Bone marrow examination

The process of removing bone marrow by withdrawing it through a needle for pathological examination. It is usually withdrawn from the hipbone. These bones are just under the skin, making the removal of the marrow easy, safe, and only momentarily uncomfortable with local anesthetic.

Bone marrow suppression

A decrease in one or more of the blood counts. This condition can be caused by chemotherapy, radiation, disease or various medications.

Bone scan

A picture of all the bones in the body taken about two hours after injection of a radioactive tracer. "Hot spots" indicate areas of bone abnormality that may indicate tumors, although they can also be due to other causes, such as arthritis. No preparation is required, and the test is easy. The main problem is lying still on a hard table for 15 minutes. This test can help determine if cancer has spread to the bones, if therapy is working, and if damaged bony areas are healing.

CEA (careinoembryonic antigen)

A "tumor marker" in the blood that may indicate the presence of cancer. It may be elevated in some cancers, especially of bowel. By monitoring the amount of CEA, doctors can assess the progress of treatment.

Chemotherapy

The treatment of cancer by chemicals (drugs) designed to kill cancer cells or stop them from growing.

Clinical trials

The procedure from which new cancer treatments are tested in humans. Clinical trials are conducted after experiments in animals and preliminary studies in humans have shown that a new treatment method might be effective.

Combined modality therapy

Treatment with two or more types of therapy -- surgery, radiotherapy, chemotherapy and biological therapy. These may be used at the same time or one after the other. Surgery, for example, is often followed by chemotherapy to destroy random cancer cells that may have spread from the original site.

Dysphagia

Difficulty swallowing; a sensation of food sticking in the throat.

Dyspnea

Shortness of breath.

Edema

The accumulation of fluid within tissues.

Emesis

Vomiting.

Estrogen

The female sex hormone produced by the ovaries. Estrogen controls the development of physical characteristics, menstruation and pregnancy. Synthetic forms are used in oral contraceptives and in various therapies.

Estrogen-receptor (ER) assay

A test that determines whether the breast cancer in an individual is stimulated by estrogen.

Extravasation

Leakage into the surrounding tissues of intravenous fluids or drugs - especially cancer chemotherapeutic agents – from the vein being used for injection. Extravasation may damage tissues.

Frozen section

A procedure done by the pathologist during surgery to give the surgeon an immediate answer as to whether a tissue is benign (non-cancerous) or malignant (cancerous). Tissue is removed by biopsy, frozen, cut into thin slices, stained and examined under a microscope. This information is vital in helping the surgeon decide the most appropriate course of action.

Grade of tumor

A way of describing tumors by their appearance under a microscope. Low-grade tumors are slow to grow and spread, whereas high-grade tumors grow and spread rapidly.

Guaiac test

A test to see if there is hidden blood in the stool. A positive result may be a sign of cancer, but many benign (non-cancerous) conditions also cause bleeding.

Hematocrit

A way of measuring the percentage of red blood cells in blood volume. The normal level is about 40 – 45% in men, and from 37-42% in women. A low hematocrit is a sign of anemia.

Hemoglobin

A way of measuring the protein that contains iron within red blood cells. The normal value in men is about 13 – 15 grams, in women from 12.5 – 14 grams.

Herpes zoster, shingles

A painful eruption in the skin caused by a virus infection that affects the nerves. The same virus that causes shingles causes chicken pox.

Hospice

A facility and a philosophy of care that stresses comfort, peace of mind, and management of symptoms. Hospice care, provided on either an outpatient or inpatient basis, is generally invoked when no further anticancer therapy is available and life expectancy is very short. Hospice also helps family and friends to care for and cope with the loss of a dying loved one.

Immune system

The body mechanisms that resist and fight disease. The main defenders are white blood cells and antibodies, which along with other specialized defenders, react to the presence of foreign substances in the body and try to destroy them.

Immunosuppression

The state of having decreased immunity and thus being less able to fight infections and disease.

Lobectomy

Removal of one lobe of a lung. The right lung contains three lobes. The left lung contains two.

Lumpectomy

The removal of a breast cancer (lump) and the surrounding tissue without removing the entire breast. It is a less radical procedure than mastectomy and is usually followed by radiation treatment.

Lymph nodes

Oval-shaped organs, often the size of peas or beans, that are located throughout the body and contain clusters of cells called lymphocytes. The infection-fighting lymphocytes filter out and destroy bacteria, foreign substances and cancer cells. Small vessels called lymphatics connect them. Lymph nodes act as our first line of defense against infections and the spread of cancer.

Markers; tumor markers

Chemicals in the blood that are produced by certain cancers. Measuring the markers is useful for diagnosis, but especially useful for following the course of treatment (see CEA).

Metastasis

The spread of cancer from one part of the body to another by way of the lymph system or bloodstream. Cells in the new cancer are like those in the original tumor.

Milligrams/meter squared (mg/m²)

A formula for calculating dosages of chemotherapy drugs according to the surface area of the body. Since the amount of skin is hard to determine exactly, it is closely estimated from height and weight. An average person might have 1.7 square meters of body surface area. If the standard drug dosage was 650 mg/m², then 650 x 1.7, or 1105 mg of drug is to be given.

Myelosuppression

A fall in the blood counts caused by therapy, especially chemotherapy and radiotherapy.

Nadir

The lowest point at which white blood cell or platelet counts fall after chemotherapy.

Neoplasm

A new abnormal growth. Neoplasms may be benign or malignant.

Neutrophils

One of the white blood cells that fights infection. Also called granulocytes, polys or PMNs.

Nodes

See lymph nodes.

Nodule

A small lump or tumor that can be benign or malignant.

Oncologist

A physician who specializes in cancer therapy. There are surgical, radiation, pediatric, gynecologic and medical oncologists. The term oncologist alone generally refers to medical oncologists, who are internists with expertise in chemotherapy and handling the general medical problems that arise during the disease.

Phlebitis

Inflammation of the veins, often causing pain and tenderness.

Platelet

One of the three kinds of circulating blood cells. The normal platelet count is about 150,000 to 300,000. Platelets are responsible for creating the first part of a blood clot. Platelet transfusions are used in cancer patients to prevent or control bleeding when the number of platelets has significantly decreased.

Polyp

A growth that protrudes from mucous membranes, often looking like a tiny mushroom. Polyps may be found in the nose, ears, mouth, lungs, vocal cords, uterus, cervix, rectum, bladder and intestine. Some polyps occurring in the cervix, intestine, stomach or colon can eventually become malignant and should be removed.

Port-A-Cath

One type of infusion port, a venous access device that has nothing protruding from the skin. Injections are made into a chamber implanted just under the skin.

Radiotherapy

Use of high-energy radiation from X-ray machines, cobalt, radium or other sources for control or cure of cancer. It may reduce the size of a cancer before surgery or be used to destroy any remaining cancer cells after surgery. Radiotherapy can be helpful in treating recurrent cancers or relieving symptoms.

Red blood cells

Cells in the blood that bring oxygen to tissues and take carbon dioxide from them.

Shingles

See Herpes zoster

Staging

An organized process of determining how far a cancer has spread. Staging involves a physical exam, blood tests, X-Rays, scans and sometimes surgery. Knowing the stage helps determine the most appropriate treatment and the prognosis.

Stem cells

Primitive or early cells found in bone marrow and blood vessels that give rise to all of our blood cells. To protect patients from low blood counts and the resulting complications after high-dose chemotherapy, a complex device is used to remove stem cells from a vein in the arm and give them back intravenously a few days later. They find their way back into the bone marrow that was depressed by chemotherapy. The use of peripheral stem cell transplants has made the need to collect bone marrow itself much less important. This procedure should really be called peripheral stem cell protection rather than transplantation since patients get their own cells back.

Steroids

A class of fat-soluble chemicals – including cortisone and male and female sex hormones – that are vital to many functions within the body. Some steroid derivatives are used in cancer treatment.

Stomatitis

Inflammation and soreness of the mouth. This is sometimes a side effect of chemotherapy or radiotherapy.

Thrombocytopenia

An abnormally low number of platelets (thrombocytes) - fewer than 150,000 due to disease, reaction to a drug or toxic reaction to treatments. Bleeding can occur if there are too few platelets, especially if the count falls to less than 20,000.

Tumor

A lump, mass or swelling. A tumor can be either benign or malignant.

Ulcer

A sore resulting from corrosion of normal tissue by some irritating process or substance such as stomach acid, chemicals, infections, impaired circulation or cancerous involvement.

Venipuncture

Inserting a needle into a vein in order to obtain blood samples, start an intravenous infusion, or give a medication.

Vesicant drugs

Chemotherapeutic agents that can cause significant tissue irritation and soreness if they leak outside the vein after injection.

White blood cells

Cells in the blood that fight infection. These are composed of monocytes, lymphocytes, neutrophils, eosinophils and basophils. The normal count is 5,000 to 10,000. It may be elevated or depressed in a wide variety of diseases. Chemotherapy and radiotherapy usually cause low white blood cell counts.