

TRANSPLANT TERMS AND DEFINITIONS

Many words and terms used about your treatment may be new to you and sound confusing when you first hear them, some of them will even sound alike. This section serves as a reference to help you understand these terms.

Afebrile	No fever; having a normal temperature.
ALL	Acute lymphocytic leukemia (Acute lymphoblastic leukemia).
Allogeneic transplant	A marrow or blood transplant where a donor's (related or unrelated) stem cells are infused into the patient following a preparative regimen.
Allograft	Bone marrow removed from a donor to be used in a marrow transplant.
Alopecia	Loss of hair.
AML	Acute myelogenous leukemia (acute myeloblastic leukemia).
Analgesic	A drug used to relieve pain.
ANC	Absolute neutrophil count. The percentage of white blood cells (WBCs) available to fight infection. This percentage includes bands and segs.
Anemia	Decreased red blood cell levels.
Antibiotic	A drug used to fight infection from bacteria.
Antibody	A protein produced by the body, in response to a foreign substance, that fights the invading organism.
Antiemetic	A drug used to relieve nausea and vomiting.
Antifungal	A drug used to fight infections from fungi.
Antigen	A substance that evokes a response from the body's immune system resulting in the production of antibodies or other defensive action by white blood cells.

Apheresis	A painless procedure by which blood is withdrawn from a patient's or donor's arm or through a temporary catheter, and circulated through a machine that removes certain components and returns the remaining components to the patient or donor. This procedure is used to remove platelets from platelet donor's blood, or stem cells from patients or donors undergoing a peripheral stem cell harvest.
Aplasia	A failure to develop or form. In bone marrow "aplasia," the marrow cavity is empty.
Aplastic anemia	A non-cancerous blood disorder in which the bone marrow is not functioning and the patient is not making adequate red blood cells, white blood cells, and platelets.
Arterial blood gases (ABGs)	Tests performed on blood drawn from an artery to identify the amount of oxygen and carbon dioxide in the blood.
Ascites	Accumulation of fluid in the abdominal cavity due to liver failure.
Aspergillus	A type of mold that can cause serious infections after blood or marrow transplant.
Aspirate	To remove by suction as in a bone marrow aspirate.
Autologous transplant	A blood or marrow transplant in which the patient's own stem cells, rather than stem cells from a donor, are infused during transplant to provide the patient with a source of stem cells.
Bacteria	Microscopic organisms that invade human cells, multiply rapidly, and produce toxins that interfere with normal cell function.
Benign	A growth or tumor that is not malignant or cancerous.
Bilirubin	A pigment produced when the liver processes waste products. A high bilirubin level causes yellowing of the skin.
Biopsy	The removal of a small amount of tissue from the body to be studied under a microscope in order to determine the presence or absence of disease.
Blast Crisis	An advanced stage of chronic myelogenous leukemia relapse when a patient has a large number of leukemia cells in the circulating blood.

Blood cells	Cells that make up the blood, including red blood cells, white blood cells, and platelets.
Blood count	A lab test to determine the number of cells in blood.
Blood Transplant	A transplant in which the patient's own stem cells from the peripheral blood, rather than from the marrow, are infused following high dose chemotherapy or radiation therapy to provide the body with a source of stem cells. (Also known as PBSCT, PBCT or BCT).
Blood typing and cross-matching	Blood cells contain factors which are not the same in all people. Before being given a transfusion, blood samples from the donor and the patient are typed or classified (type A, B, AB, O) to match them. Once typed, the samples are cross-matched to double-check that they are compatible.
BMT	Initially, an abbreviation for "bone marrow transplantation", now refers to "blood and marrow transplantation".
Bone Marrow (BM)	Spongy tissue in the cavities of large bones, where the body's blood and immune cells are produced.
Bone marrow aspiration & biopsy	Procedure used to remove a sample of bone marrow, usually from the rear hip bone, for examination under the microscope.
Bone marrow harvest	Collection of marrow stem cells through multiple bone marrow aspirations. Cells are withdrawn at the back of the hip bone usually under general anesthesia.
Bronchoscopy	The direct inspection and observation of the throat and bronchi through a flexible lighted tube. This procedure is used for diagnosis of pulmonary conditions.
Candida	A type of yeast, common to the intestine, that can cause infection in immune-compromised patients.
Catheter	A hollow tube inserted into a body cavity (i.e. vein, bladder, etc.) to drain fluid or instill medications, fluids, etc.
CBC	Complete blood count. Determines whether the proper number of red blood cells, white blood cells, and platelets are present in the patient's blood.
CD 34 positive	Refers to antigen on surface of early progenitor cells in the bone marrow and in the circulating blood which is used to identify stem cells.

Central venous catheter (CVC)	Small, flexible plastic tube inserted into the large vein above the heart, through which drugs and blood products can be given and blood samples withdrawn painlessly (also called central line; types = Hickman, Groshong).
Chemotherapy	Drugs that are used to treat diseases by either destroying abnormal cells or slowing their growth; more specifically, agents used in the treatment of cancer.
Chest X-ray	A view of the chest area which includes the heart, lungs, and ribs.
Clinical trial	An investigation of the effects of materials or methods according to a formal study plan for a particular disease.
CLL	Chronic lymphocytic leukemia.
CML	Chronic myelogenous leukemia (chronic granulocytic leukemia - CGL).
Colony stimulating factors	Proteins that stimulate the production and growth of certain types of blood cells (also called CSFs or growth factors).
Conditioning Regimen	The combination of chemotherapy drugs and/or radiation used to prepare your body for bone marrow transplantation.
Cryopreservation	The freezing process after collection of stem cells from either circulating blood or the bone marrow.
CT or Cat scan (Computerized Tomography)	A type of x-ray using dye and computers to obtain a clear picture of the body.
Culture	Samples taken of body fluids or tissue that are then allowed to grow in the lab to document the presence of an infection and recognize the organism responsible.
Cytomegalovirus	A virus that lies dormant in many person's bodies and may cause infections after transplant. Patients who have been exposed to and still carry the virus are CMV-positive.
Day Zero	Day zero is the day your stem cells will be reinfused into your body. (For some patients, day zero may be the day that granulocyte-colony stimulating factor (G-CSF) is given if stem cells are not used.)
Differential (Diff)	The distribution of different types of white blood cells.

Diuretic	A drug which increases the elimination of water and salts (urine) from the body.
Dysplasia	Alteration in the size, shape and organization of cells or tissues.
Echocardiogram (Echo)	A test that measures the function of the heart. Similar to a MUGA scan.
Edema	The accumulation of fluid in parts of the body causing swelling.
Electrolytes (lytes)	Electrically charged particles that are found in the bloodstream. The correct level of each electrolyte is important for the overall functioning of the body. Examples are sodium, potassium, magnesium.
Engraftment	When blood or bone marrow infused during a blood or marrow transplant “takes” or is accepted by the patient, and begins producing blood cells.
Febrile	To have a fever.
G-CSF	Granulocyte colony stimulating factor. A protein that stimulates the growth and maturation of granulocytes.
GM-CSF	Granulocyte-macrophage colony stimulating factor. A protein that stimulates the growth and maturation of a wide variety of white blood cells.
Graft failure	When the patient does not engraft after the blood or marrow transplant or begins to engraft, but then “loses” the graft.
Graft rejection	When donated cells infused during an allogeneic blood or marrow transplant is rejected by the patient’s immune system.
Graft-versus-host-disease (GVHD)	A condition that can occur following an allogeneic transplant in which some of the donor’s (graft) cells attack the patient’s (host) tissues and organs. Acute GVHD usually occurs in the first 3 months after transplant and usually involves the skin, gut, and liver. Chronic GVHD may occur later than 3 months after transplant and usually involves the skin, liver, mouth, eyes, and other organs.
Granulocytes	A category of white bloodcells that contain granules in their cell body.

Harvest	The collection or “harvesting” of bone marrow cells or peripheral stem cells from your body.
Hematuria	Blood in the urine.
Hemoglobin	That part of the red blood cell that carries oxygen around the body. A low hemoglobin may indicate a low number of red blood cells, or anemia.
HEPA filters	An air filtration system used on BMT units to remove particulate matter and fungi from the air.
Herpes simplex virus (HSV)	The virus that causes cold sores and genital herpes which can be reactivated to cause infection after transplant. These infections can be prevented with prophylactic antiviral therapy (acyclovir).
Herpes zoster	A viral infection characterized by the development of painful skin eruptions that follow the route of underlying nerves. Examples are shingles and chicken pox.
High-Dose Chemotherapy	The treatment of disease through very high doses of anticancer drugs.
Histocompatibility	Blood tests used to determine the similarity between donors and recipients.
Human leukocyte antigen (HLA) type	A genetic “fingerprint” composed of proteins that play a critical role in activating the body’s immune system to respond to foreign organisms. The HLA type is comprised of many antigens, six of which are particularly important in blood and marrow transplantation. This includes two HLA-A, two sets of HLA-B, and two HLA-DR antigens. Each person gets one HLA-A, HLA-B and HLA-DR antigens from each parent.
Hydration therapy	Intravenous fluids given to make sure the kidneys are functioning properly, or to replace fluid lost as a result of vomiting or diarrhea.
Hyperglycemia	High levels of sugar in the blood.
Hypertension	High blood pressure.
Hypotension	Low blood pressure.
I&O (intake and output)	A measure of the amount of fluids you take in and the amount of all body fluids put out.

Iliac crest	The hip bone in which a large quantity of bone marrow is concentrated.
Immune system	The body's defense network against infections and foreign particles.
Immuno-suppressed	A condition in which the patient's immune system is functioning at a lower than normal level. Allogeneic BMT patients are deliberately immunosuppressed to allow the donor's bone marrow to engraft without interference from the patient's immune system (also called immunocompromised).
Infection	The invasion and multiplication of disease-producing organisms within the body.
Inflammation	The body's reaction against injury or infection. Signs and symptoms may include pain, swelling and heat at the site.
Intravenous (IV) Infusion	Delivering fluids or medicine directly into the bloodstream through a vein.
Jaundice	A yellowing of the skin and the whites of the eyes due to liver disease.
Karnofsky score	A score that represents a patient's overall physical health.
Leukocyte	A white blood cell that fights infection.
Low bacteria diet	The elimination of uncooked foods, especially fruits and vegetables, from a diet. All foods must be thoroughly cooked by convection oven, broiler, boiling or baking. The diet includes fluids that have very few bacteria, such as perked coffee, loose tea and boiled water, and certain canned or boxed juices.
Lumbar puncture	Technique used for removing small amounts of the fluid that bathes the brain and spinal cord. This fluid is tested for the possible presence of cancer cells as well as bacteria and other substances.
Lymphocyte	A type of white blood cell that helps protect the body against invading organisms by producing antibodies and regulating the immune system response. Activated lymphocytes play a major role in GVHD (also called T-cells).
Macrophage	A type of white blood cell that assists in the body's fight against bacteria and infection by engulfing and destroying invading organisms.

Metastatic	Spread of a disease from the organ or tissue to another part of the body.
MLC (mixed Lymphocyte Culture)	Lymphocytes from the donor and recipient are mixed together and tested for their compatibility.
Matched Unrelated Donor) MUD	A type of allogeneic transplant using a donor from the general population who is not related to the patient but who is a very close HLA match.
Monocyte	A type of white blood cell that assists in the fight against bacteria and fungi that invade the body.
Mucositis	Irritation and ulceration and sloughing of the lining of the mouth and esophagus caused by chemotherapy and radiation.
MUGA scan	A test that measures the function of the heart. Similar to an echocardiogram.
Neutropenia	A state where neutrophils are deficient. Neutropenia is defined as an ANC $< 500/\text{mm}^3$. During neutropenia, the immune system is unable to adequately defend itself against infection.
Neutrophils	A type of white blood cell that is the body's primary defense against harmful bacteria (part of the family of granulocytes).
PRBC (packed red blood cells)	A transfusion of red blood cells that patients receive when the red blood cell count is low. Transplant patients require RBCs to be irradiated to inactivate lymphocytes.
Pancytopenia	A state of deficiency of all types of blood cells.
PCA	Patient controlled analgesia. A pump used to administer IV pain medications in which the patient has the option to administer his/her own doses.
Perirectal	Area around and between the anus and external genitalia.
Petechiae	Tiny pinpoint red spots on the skin or in the mouth, which indicate a low level of platelets.
Platelet	One of the main components of blood that produces clots to seal up injuries and prevent excessive bleeding. Also called thrombocyte.
Platelet count	A type of blood cell that helps blood to clot. Platelets are a

(Plt ct)	blood component necessary to accelerate the coagulation or clotting of blood. An increased risk for bleeding when the platelet count falls below 50,000mm ³ (normal range = 150-400,000/mm ³).
Pneumocystis	A type of lung infection that occurs from approximately 1-12 months after transplant.
Pneumonitis	Inflammation of the lung which can occur after transplant due to infection, chemotherapy or radiation therapy, or other reasons.
Preparative regimen	The chemotherapy and/or radiation given to BMT patients prior to transplant to kill cancer cells and/or make space for healthy new marrow and/or suppress the immune system so graft rejection does not occur (also called conditioning regimen).
Protocol	A standardized treatment plan.
Purging	The process by which certain types of cells are removed from blood or bone marrow cells prior to infusion into the BMT patient. In autologous BMTs, marrow may be purged to remove remaining cancerous cells. In allogeneic BMTs, donor bone marrow may be purged to remove cells that cause graft-versus-host-disease.
Radiation therapy	Treatment using high-energy radiation, as from x-ray machines.
Randomization	Assignment of a patient to a certain treatment plan that is compared to another. Like flipping a coin.
Red blood cells (RBCs)	Blood cells that transport oxygen throughout the body.
Refractory	Condition where cancer is not responsive to treatment.
Relapse	Recurrence of disease following treatment.
Remission (complete)	Condition in which no cancerous cells can be detected by a microscope or other measure used to measure the existence of cancer cells, and the patient appears to be disease-free.
Remission (partial)	Condition which generally means that by all methods used to measure the existence of a tumor, there has been at least a 50 percent regression of the disease following treatment.

Side effects	Reactions to drugs that are usually temporary and reversible. They do not relate to drug effectiveness.
Solid tumor	A cancer that originates in organ or tissue other than the bone marrow or lymph system.
Sputum	A mixture of saline, mucus and cells coughed up from the lungs and throat.
Staging	Methods used to establish the extent of a patient's disease.
Stem cell	"Mother" or "primitive" blood cell from which all other blood cells originate.
Syngeneic transplant	A blood or marrow transplant in which the donor of stem cells is an identical twin.
T-cell	A type of white blood cell that can distinguish which cells belong in a person's body and which do not (a type of lymphocyte).
TBI	Total body irradiation.
Thrombocytopenia	Decreased platelet counts.
TPN	Fluid infused into a central venous catheter that provides calories, vitamins, and minerals that would normally be received from food (also called hyperalimentation).
Tumor burden	The size or amount of the tumor or number of abnormal cells in the body.
VAD (Vascular Access device)	A long, narrow tube that is surgically placed into a large vein leading directly to your heart.
Varicella-zoster	The virus that causes chicken pox (varicella) or shingles (zoster). This virus can be reactivated after transplant and cause infection, but may also be newly acquired. Exposure to people with chicken pox should be avoided.
Veno-occlusive disease (VOD)	A disease that sometimes occurs following high-dose chemotherapy and/or radiation, in which the small blood vessels that carry blood through the liver become swollen and clogged. The patient may develop an enlarged, painful liver, increased bilirubin, and ascites.
White blood cells (WBCs)	The blood cells that help your body to fight infection and mount immune responses.