

Bone and Marrow Transplantation GLOSSARY

Allogeneic Transplant: A transplant using a tissue matched or partially matched related or unrelated donor.

Anemia: Decreased number or insufficient function of red blood cells which causes fatigue and paleness.

Antibodies: See gamma globulin.

Antithymocyte Globulin (ATG): A protein containing drug used to treat and prevent graft versus-host disease.

Apheresis: The process of removing only selected type of blood cells from a blood donor and simultaneously returning all the others.

Autologous Transplant: A transplant using the patient's own stem cells, which are collected, sometimes treated in the laboratory and stored to be given to the patient later after treatment.

Blasts: Young, ineffective white blood cells in leukemia. There are a few normal blasts found in all marrow. Tumor blasts, though, are found in leukemia.

Bone Marrow: Spongy center of bones that is the "factory" for all blood cell in circulation.

Bone Marrow Aspirate: A procedure by which a sample of bone marrow is taken from the hip bone.

Cardiomyopathy: Heart damage that can occur after high doses of chemotherapy, causing a weakening of heart muscle and decrease in its pumping function.

Cataracts: Changes in the lens of the eye which causes cloudy vision, a condition that can occur months to years after total body irradiation and steroid therapy.

Chemotherapy: Treatment for cancer using chemical substances designed to kill cancer cells. It is used in large doses to help destroy a patient's diseased marrow in preparation for a marrow transplant.

Conditioning: The process of preparing the patient to receive donated stem cells. Often done through the use of chemotherapy and radiation therapy.

Cord Blood: The blood of newborns found in the umbilical cord and placenta. It contains large numbers of blood stem cells important for transplantation. For this reason, stem cells from the placenta and umbilical cord are collected after birth, frozen and stored.



Cystitis: An inflammatory condition of the urinary bladder. Hemorrhagic cystitis is a rare side effect of certain chemotherapy drugs (e.g. cyclophosphamide) that results in bleeding from the bladder and bloody urine.

Cytogenetics: Testing of the chromosomes (DNA) in the bone marrow or blood cells.

Donor: A volunteer (related or unrelated) who has donated stem cells for a patient.

Engraftment: Successful transplantation of donor bone marrow cells into the patient as shown by growth and differentiation of donor cells to achieve normal blood counts in the recipient.

Fungus: A type of germ, different from bacteria, which can cause life-threatening infection (examples, candida, aspergillus and other molds).



Immunoglobulin: General term for antibodies, which are proteins made by normal lymphocytes to fight infections. Transplant patients often become deficient in immunoglobulins and require intravenous replacement. This infusion may also be referred to as IVIG.

Graft-versus-Host-Disease: A condition where the donor's transplanted marrow or stem cells react against the patient's tissues. It is referred to as GvHD and most often affects the skin, gastrointestinal tract, and/or liver.

Harvesting: The procedure performed under anesthesia to remove bone marrow from the patient or a donor (bone marrow harvest) or the procedure to remove peripheral blood stem cells (PBSC harvest or pheresis).

Hematopoiesis: The formation and maturation of blood cells (red blood cells, platelets and white blood cells) from progenitor stem cells.

Hematopoietic Stem Cells: Cells with the ability to both make other stem cells (self-renew) and divide and differentiate into mature white blood cells, red blood cells, and platelets.

Hemoglobin: The protein within the red blood cell which carries oxygen. Reduced levels of this protein result in anemia.

HLA: Human Leukocyte Antigen – Proteins on cells that are determined by genes (DNA) and are used to match a recipient and donor for a bone marrow transplant.

IgG: Antibodies which fight germs, they are produced by "B" lymphocytes (a type of white cell).

Immunosuppression: A condition in which the body's ability to fight infection (immune system) is decreased.

Interstitial Pneumonia: Inflammation of the lung tissue, usually caused by a virus, or, rarely, after radiation or chemotherapy.

Irradiated Blood Products: Blood products are treated with radiation in the blood bank to inactivate or prevent T-cells from causing graft-versus-host disease in the recipient. Radiation of blood products does not make the blood radioactive and does not endanger your child in any way.

Jaundice: A yellowish color in the skin or the whites of the eyes of the eyes associated with liver inflammation.

Leukemia: Any of a group of potentially fatal diseases involving uncontrolled growth of white blood cells. Leukemias are classified based upon rapidity of course of disease and cell type affected.

Lumbar Puncture: "LP" or spinal tap is a test or procedure to remove a small amount of spinal fluid that surrounds the spinal cord in order to check for infection or leukemia. A small needle is inserted into the low back briefly to obtain fluid.

Lymphocyte: A category of white blood cells including T cells and B cells.



Lymphoma: A cancer of lymph tissue or lymph nodes.

Monoclonal Antibodies: Specially prepared antibodies made specifically to attack certain kind of cells such as T cells or leukemia. Many of the newer immune suppressive medications are monoclonal antibodies.

Mucositis: Inflammation of the mucous membranes inside the mouth, tongue, gums, throat, stomach, or intestines commonly called mouth sores.

Neuroblastoma: A solid tumor of children which, in an advanced wide-spread stage, may be treated by autologous stem cell transplant.

Neutrophil: One type of white blood cell important in fighting bacterial germs and fungi.

Peripheral Blood Stem Cells: Cells with the potential to produce all the components of blood. Peripheral Blood Stem Cells (PBSC) are obtained from “circulating” blood rather than from bone marrow.

Platelet: A component of the blood important in clotting. Inadequate amounts of platelets will lead to bleeding and bruising easily.

Protocol: A specific plan for treatment of a disease or disorder.

Red Blood Cell: A type of blood cell made in the bone marrow that carries oxygen to all parts of the body.

Rejection: The body’s refusal to accept the transplanted marrow.

Relapse: The recurrence of leukemia or other underlying disease after treatment.

Remission: The disappearance of cancer cells following treatment. Also, the period during which the reduction or disappearance of symptoms occurs.

Steroids: A type of drug used to treat certain types of leukemia’s, to reduce inflammation, or to prevent and treat graft-versus-host disease.

T Cell: A category of white blood cell (lymphocyte) responsible for regulating the immune system and protecting us from viral and fungal infections. T cells are also the cells responsible for graft rejection and graft-versus-host disease.

Total Body Irradiation: Radiation (x-rays) therapy given to the whole body in multiple fractions over several days to treat cancer, and help clear out the existing bone marrow to allow space for the transplanted marrow. “Fractionated” TBI means that the total dose is split into smaller, more frequent doses in order to reduce side effects.

Total Lymphoid Irradiation: Irradiation directed only at lymph node sites such as neck, upper midline chest, and underarms.

Transplant: A medical treatment to replace a recipient’s diseased organ or tissues with a healthy organ or tissue from a donor.

Veno-Occlusive Disease: A condition which may rarely occur in the first few weeks after HSCT caused by obstruction in the liver veins due to damage from chemotherapy and radiation.

Virus: A type of germ that causes infections, most of which are not effectively treated with antibiotics. Examples: cytomegalovirus (CMV), herpes, varicella (chickenpox), adenovirus, hepatitis.

White Blood Cell: Also called a “leukocyte,” a type of blood cell produced by the bone marrow to help fight infection.