

What is the usual approach to treating my type of blood cancer with a blood stem cell transplant?

“Cells” are the smallest living units inside a body, like pockets of fluid. All parts of the body are made up of cells or materials made by cells.

Blood cancer: Normally, special cells known as blood-forming stem cells make all of the different kinds of blood cells in the body, replacing old blood cells with new ones throughout life. The blood-forming stem cells make red blood cells for carrying oxygen, white cells for fighting infection, and platelets for clotting blood. The blood-forming stem cells (called “blood stem cells” for short) mostly live in the bone marrow—the hollow space in the center of the bones. In a blood cancer, the blood stem cells do not work correctly. They make too many of only one type of blood cell, and these cells do not do their job correctly. So there are not enough normally working blood cells.

For the usual approach with a standard blood stem cell transplant, you receive chemotherapy and radiation before the transplant to kill the abnormal blood stem cells in your body. Then blood is taken from the donor’s vein. The red blood cells, which carry oxygen, are taken out of this blood. The “graft,” or the final material injected into you, has the donor’s blood stem cells and many different types of white blood cells. The US Food and Drug Administration (FDA) has approved standard blood stem cell transplants for the treatment of certain blood cancers.

After the transplant, you are given one or more drugs to help prevent a common side effect called “graft-versus-host disease.” Graft-versus-host disease, or GVHD, is when some of the white blood cells from the donor multiply and attack and damage normal parts of your body, like the skin, intestines, or liver.