Article Side
Importance and functions of stem cell transplants by Roger Lopez

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Stem cells that are found in early embryos have the capacity to form into skins, bone marrow, and body organs. In recent times, the field has captured much attention and many are turning into it to seek deliverance from life threatening diseases. Stem Cells are immature but they can mature into the body. Stem Cell Transplants are the process in which healthy stem cells are infused into the body system. Its significance is huge when bone marrow does not work and fails to produce enough sufficient stem cells that are required by the body. These immature cells are able to regenerate the bone marrow, and it is best when HLA (Human Leucocyte Antigen) compatibility is observed. These immature cells decrease the graft rejection phenomenon and their ability to proliferation is superior to adult bone marrow cells.

The main purpose of a transplant is to make the body capable of producing enough white blood cells, red blood corpuscles and prevent cases like anemia, bleeding and infections.

Stem Cell Transplant may be referred to as bone marrow transplant or umbilical cord blood transplant as far as the origin of the stem cells are concerned. The process can make use of cells from your body, from your identical twin or from donors. It assists in replenishing the body's capacity to produce blood-forming cells.

Chemotherapy is used for treating cancer. Stem cells that have been destroyed due to the application of chemotherapy or radiation therapy can be restored through the process of stem transplants. Overall, it helps patients to cope up with the effect that these therapies have on the cells that divide rapidly.

Bone marrow are often damaged due to high-dose treatments as a result of which a patient is unable to produce enough blood cells for the carriage of oxygen to the different parts of the body, prevent bleeding and fight infection. Cell transplantation can be used for treating leukemia, lymphoma as well as treat cancers like neuroblastoma, multiple myeloma etc.

Umbilical cord transplants involve the extraction, storing and transplantation of umbilical cord blood and can be useful for treatment of those suffering from leukemia or aplastic anemia. Bone marrow donors are rarely found as the process is extremely painful and takes a long time to heal. Umbilical cords consist of haemopoietic stem cells that can reconstitute and repopulate bone marrow.

Cord blood transplantation can be an alternative for bone marrow transplants. Besides, the practice of bone marrow transplantation is very rare. Umbilical cord blood, bone marrow and peripheral blood are the sources that are used in transplants to serve the purpose of blood forming cells. Cord blood units can be stored and readily used. Donors are easily available as well. Patient's condition can be improved with this kind of transplant. A person with a rarely-found tissue type cannot find a donor easily. Cord blood unit may be taken as a consideration in this case. Today more time, energy and money are spent to further understand the amazing benefits provided by this kind of transplants and its similarities with other form of transplants.

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John Cristo is a article writer who writes the article about a stem cell transplant and a stem cells etc. know more about outsourcing software companies please visit http://www.cryobanksindia.com/faq.html.

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