

STEM CELL BANKING AND IT'S BENEFITS

Relevant for: Science & Technology | Topic: Biotechnology, Genetics & Health related developments

The blood collected from the umbilical cord of the newborn is a rich source of stem cells. This blood is collected and sent to a cord blood bank, where the stem cells are separated, tested, processed, and preserved in liquid nitrogen. Technically, there is no expiry date and these stem cells can be preserved for a lifetime. Scientifically, evidence exists that they can be stored for about 20 years. The stem cells can treat around 70 blood related disorders and genetic disorders including thalassemia, sickle cell anaemia, leukaemia, and immune related disorders.

Stem cells taken from umbilical cord blood are like those taken from bone marrow, capable of producing all blood cells: red cells, platelets and immune system cells. When used, stem cells are first concentrated, then injected into the patient. Once transfused, they produce new cells of every kind.

They're capable of producing all types of blood cells: red cells, platelets and immune system cells. The stem cells can treat around 80 blood related illnesses like leukaemia, lymphomas, several genetic conditions and immune related disorders. But given the present state of medicine, they are effective only for around a dozen of them

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