

For people with aplastic anemia, fresh cells rather than frozen are better for blood and marrow transplant

New research suggests people with aplastic anemia do better when blood and marrow transplant (BMT) uses fresh, rather than frozen cells.

BMT can cure aplastic anemia, which causes the body to stop making enough blood and marrow cells.

However, during the coronavirus (COVID-19) pandemic, restrictions make it harder for donors to travel to a medical center to donate cells for BMT. It's also harder for couriers to deliver the fresh cells to the patient. Since patients prepare for BMT days beforehand, it is critical that the donated cells arrive on time.

Doctors wanted to know whether frozen cells would work as well as fresh cells. It is possible to collect, preserve, and very slowly freeze the cells. This is called cryopreservation. The frozen cells can be stored until needed, and then thawed.

Scientists looked at medical records of about 250 people with aplastic anemia who received BMT during 2013-2019. About 1 in 5 of these people got BMT with previously frozen cells. They were compared to similar people who got fresh cells.

A year after transplant:

- 73% (7 out of 10) of people who got frozen cells were likely to be alive.
- 91% (9 out of 10) of people who got fresh cells were likely to be alive.

So, for people with aplastic anemia, fresh cells seem better than frozen, when possible.

During the pandemic, the National Marrow Donor Program (NMDP) / Be The Match recommends that doctors use frozen cells to be sure cells will be available. However, people with aplastic anemia still can receive fresh cells.

The Center for International Blood and Marrow Transplant Research (CIBMTR) fast-tracked these studies to help doctors and patients make decisions, completing the studies about 10-15 times faster than usual. Although many clinical trials are paused during the pandemic, the CIBMTR continues research on its vast registry of medical records.



Learn more about

- [COVID-19 FAQs](#), from BeTheMatch.org
- More [study summaries](#) at [cibmtr.org](#)

About this research summary

This information is provided on behalf of the Consumer Advocacy Committee of the CIBMTR[®] (Center for International Blood and Marrow Transplant Research[®]).

Source

Eapen M, Zhang MJ, Tang XY, et al. [Hematopoietic cell transplantation with cryopreserved grafts for severe aplastic anemia](#). *Biology of Blood and Marrow Transplantation*. 2020 May 8; doi:10.1016/j.bbmt.2020.04.027. [Epub ahead of print] [In Press].

