

People with sickle cell trait can safely donate bone marrow

Only 2% of people have problems, regardless of sickle cell trait



People who have sickle cell trait can safely donate bone marrow, a new study found.

Blood or marrow transplant (BMT) can cure sickle cell disease and some blood cancers. Patients can get a BMT from a donor even if they have sickle cell trait. In this study, doctors wanted to know if people with sickle cell trait could safely donate marrow.

People who have sickle cell trait are not sick like people who have sickle cell disease. However, the trait does make people more likely to become seriously ill during infections and surgeries.

Doctors compared medical records of about 350 people who donated bone marrow during 2010-2019. They compared people with and without sickle cell trait. People with sickle cell trait and people without the trait had similar amounts of pain, fever, hospitalization, and serious effects:

- It took about 3 weeks to recover from donating, whether or not people had sickle cell trait
- About 2% (2 out of 100 people) had serious effects on the heart or bones, whether or not they had sickle cell trait.

Keep in mind

Most people donate peripheral blood stem cells (PBSC), not bone marrow. Donating PBSC is not typically painful, but your body needs special medicine to make extra stem cells to donate. Unrelated donors who have sickle cell trait may not always be able to tolerate that medicine, and in some situations, they may only donate marrow instead of PBSC. Donating

marrow is a minor surgery. Most people go home on the same day that they donate marrow, although some people stay overnight in the hospital. Everyone is different. Ask your doctor whether donating bone marrow is possible for you.

Learn more about

- [Donate bone marrow](#) at NMDP.org
- [Clinical trials for sickle cell disease](#) at CTsearchsupport.org
- More [study summaries](#) at CIBMTR.org

Source

Farhadfar N, Bo-Subait S, Schmidt G, et al. [Acute Toxicities of Bone Marrow Donation in Unrelated Donors with Sickle Cell Trait: A Center for International Blood and Marrow Transplantation Research Analysis](#). Transplantation and Cellular Therapy. 2025. Epub 2025 October 08. doi: 10.1016/j.jtct.2025.10.007.

About this research summary

CIBMTR[®] (Center for International Blood and Marrow Transplant Research[®]) thanks study participants. This information is provided on behalf of the Consumer Advocacy Committee of CIBMTR. CIBMTR is a research collaboration between the Medical College of Wisconsin and NMDP.

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This plain-language summary was written by Jennifer Motl at the Medical College of Wisconsin and reviewed by an author of the full article. ©2025 by CIBMTR, license [CC BY-SA 4.0](#).