

Support from family and friends helps patients at cellular level

Social support affects the immune system in transplant



Social well-being can affect the immune system in patients who receive blood or marrow transplant (BMT) by turning off genes that cause inflammation, new research shows.

Researchers checked blood samples from about 120 adults who got BMT during 2011-2013 and did surveys about their physical, social, mental and emotional health.

Patients who said they had better social support had changes in their blood tests. The patients had less of a marker linked to unhealthy inflammation.

The marker is called the conserved transcriptional response to adversity (CTRA).

Other studies have linked high CTRA levels to poor health after transplant. CTRA also has been linked to heart disease, viral infections, long-lasting fatigue, and depression.

CTRA levels can be changed with:

- Social support
- Therapy to reduce stress
- Positive psychology programs
- Medicines called beta blockers, such as propranolol

Keep in mind

This study was not a clinical trial. It did not include all the things that affect well-being such as income, ability to do activities, and more. More research is needed in a larger, more ethnically diverse group of people.

Learn more about

- [No-cost telephone counseling](#) for patients and caregivers at [BeTheMatch.org](https://www.BetheMatch.org) and 888-999-6743
- [Clinical trials to reduce stress](#) at [CTsearchsupport.org](https://www.CTsearchsupport.org)
- [FACT-G survey](#), including social well-being at [FACIT.org](https://www.FACIT.org)
- [More study summaries](#) at [CIBMTR.org](https://www.CIBMTR.org)

Source

Taylor MR, Cole SW, Strom J, et al. [Unfavorable transcriptome profiles and social disadvantage in hematopoietic cell transplantation: a CIBMTR analysis](#). *Blood Advances*. 2023;7(22):6830-6838. Epub 2023/09/29. PMC10679811. doi: 10.1182/bloodadvances.2023010746.

About this research summary

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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. © 2023 by CIBMTR, license [CC BY-SA 4.0](#).