

## New tool predicts acute graft-vs-host disease after transplant

### Free tool helps doctors tailor therapies for each adult patient



A new tool to predict acute graft-versus-host disease (AGVHD) helps patients think about their personal risks. It's like a weather forecast. If you know that a storm might come, then it's easier to gather resources to stay safe and healthy.

The storm in this example is AGVHD. AGVHD is a serious condition that sometimes happens after blood or marrow transplant (BMT). BMT can cure cancers and blood diseases, such as leukemia and sickle cell disease. AGVHD happens if transplanted cells mistakenly attack your body's cells. This may hurt your skin, stomach, intestines, and liver.

Medicines that block your immune system can stop AGVHD *after* AGVHD starts. But, these medicines also make you more likely to get very serious infections. It's usually better to *prevent* AGVHD from happening. But, in the past, doctors did not know who would get AGVHD.

**Now, scientists have created an online tool that predicts who may get AGVHD:** <https://cibmtr.org/CIBMTR/Resources/Research-Tools-Calculators/aGVHD-Risk-Calculator>.

To create the tool, scientists looked at medical records of 22,000 people. Everyone was 18 or older and got allogeneic BMT during 2008 to 2019. The things most linked to a lower risk of AGVHD were:

- Preparing for BMT using reduced-intensity conditioning
- Getting a medicine, called alemtuzumab, before BMT
- Having a donor who is a close match
- Getting BMT using bone marrow or peripheral blood stem cells (PBSC), not umbilical cord blood

- Taking a medicine called cyclophosphamide after BMT

These items and more are part of the new AGVHD risk calculator.

### Keep in mind

The AGVHD risk calculator is not perfect. The study happened before a new medicine called abatacept was available. The study also happened before new blood tests for AGVHD existed. The calculator has not been tested for children.

Ask your doctor about your personal risk. Your doctor may suggest medicines to prevent AGVHD, such as cyclophosphamide and abatacept.

### Learn more about

- [GVHD](#) at NMDP.org
- [Clinical trials to prevent GVHD](#) at CTsearchsupport.org
- More [study summaries](#) at CIBMTR.org

### Source

Ulschmid CM, Li X, Wang T, et al. [Validated clinical risk score for acute graft-versus-host disease in adult allogeneic hematopoietic cell transplantation](#). Blood Advances. 2026 Feb 24;10(4):1348-1360. doi: 10.1182/bloodadvances.2025016938. PMID: 41498421.

### 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. ©2025 by CIBMTR, license [CC BY-SA 4.0](#).