

## After transplant, some people have problems focusing

After blood or marrow transplant (BMT), some people have cognitive changes.

Cognitive changes after BMT may include altered attention, focus, learning, memory and thinking. Some people report changes in speaking, writing, listening, dexterity, emotions and behaviors. No one has all these changes, and some people don't have any of them.

Patients and caregivers said cognitive changes are top concerns in a recent survey by the Blood & Marrow Transplant Information Network (BMT InfoNet).

It's tricky for scientists to study these changes. Illness, such as a blood cancer or sickle cell disease, can cause changes even before BMT. In one study, up to 60% (6 out of 10) of adults had cognitive changes before BMT. Some studies find that people have changes after transplant but feel normal a year later. More research is needed.

Different things can raise your risk for cognitive changes, including:

- Treatments, such as chemotherapy (chemo), radiation therapy, and medicines for graft-versus-host disease (GVHD)
- Infections, such as cytomegalovirus (CMV)
- Lack of sleep or fatigue
- Untreated depression and anxiety

There is no single test for cognitive changes after BMT. Scientists are checking if certain surveys, blood tests and brain scans can spot changes.

### Mending your memory and mood

If you notice cognitive changes, ask your doctor about:

- Medicines
- Exercise
- Coping with stress
- Helpful experts
- Job training
- School plans

Your doctor might be able to reduce or switch your medicines. Adding a medicine, such as methylphenidate, may help you focus.

Other things can help, too. Mild exercise improves memory in people with cancer, studies show. Stress management also helps. If you feel depressed or anxious, it's key to get treated. Your doctor also may refer you to other experts, such as a physical or occupational therapist, or a psychologist.

If you're returning to work, then job training might be useful. Ask your human resources (HR) department, supervisor, shop steward or union rep about resources.

If your child had a transplant, they may be entitled to special services in an Individualized Education Program (IEP). Ask your child's teacher for a referral.

### Questions to ask your doctor

- Before, during, and after BMT, how will you check for cognitive changes?
- What should I do if I notice cognitive changes?
- What other programs or experts may help?

### Learn more about

- [This research study](#)
- [Coping with life after transplant](#)
- [Learning and memory problems](#)
- [Managing "chemo brain"](#)

### Sources

This paper was published as a joint publication in 2 journals. The paper is identical in both journals:

Kelly DL, Buchbinder D, Duarte RF, et al. Neurocognitive dysfunction in hematopoietic cell transplant recipients: Expert review from the Late Effects and Quality of Life Working Committee of the CIBMTR and Complications and Quality of Life Working party of the EBMT. *Biology of Blood and Marrow Transplantation: Journal of the American Society for Blood and Marrow Transplantation*. 2018 Feb; 24(2):228-241. doi:10.1016/j.bbmt.2017.09.004. Epub 2017 Sep 19. PMC5743544.

Buchbinder D, Kelly DL, Duarte RF, et al. Neurocognitive dysfunction in hematopoietic cell transplant recipients: expert review from the late effects and Quality of Life Working Committee of the CIBMTR and complications and Quality of Life Working Party of the EBMT. *Bone Marrow Transplantation*. 2018 Jan 17. doi: 10.1038/s41409-017-0055-7. [Epub ahead of print] Review.

### About this research summary

Ground-breaking research into blood and marrow transplant is happening every day. That research is having a significant impact on the survival and quality of life of thousands of transplant patients. But the research is written by scientists for scientists. By providing research news in an easy-to-understand way, patients, caregivers, and families have access to useful information that can help them make treatment decisions.

This information is provided on behalf of the Consumer Advocacy Committee of the CIBMTR<sup>®</sup> (Center for International Blood and Marrow Transplant Research<sup>®</sup>). The CIBMTR is a research collaboration between the National Marrow Donor Program<sup>®</sup>/Be The Match<sup>®</sup> and the Medical College of Wisconsin.

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