

Most survivors of childhood AML have good health as adults, but history of BMT impacts long-term outcomes

Largest study of children who had acute myeloid leukemia compares treatments

Blood and marrow transplant (BMT) can cure leukemia, but it also can have serious effects. A new, large study shows that most children who survive leukemia grow into healthy adults if they have survived for 5 years following treatment.

Researchers studied the medical records of about 850 people who had acute myeloid leukemia (AML) as children and lived at least 5 years after treatment. On average, the children were diagnosed at age 7 and monitored until their late 20s. All the children were diagnosed during the 1970s to 1990s.

Researchers compared 3 types of treatments:

- BMT
- Only chemotherapy (medicines)
- Chemo and radiation therapy

After 20 years, most people were still alive:

- 86% of people who got BMT
- 95% of people who got only chemo
- 92% of people who got chemo plus radiation

And most people said they had good health overall:

- 85% of people who got BMT
- 90% of people who got only chemo
- 92% of people who got chemo plus radiation

The most common problems were relapse (cancer coming back), new cancers, and problems with the heart and lungs. It's important for people to get regular checkups every year. These problems are easier to treat the sooner they are caught.

Keep in mind

These results only apply to people who have AML and survived at least 5 years following their treatment. The treatments that children receive today are likely better than treatments received during this study (1970s to 1990s).

Also, treatments changed during the study, as scientists learned more about what works well. In the 1970s, people got radiation to the head before BMT. This caused bad effects, and is only used in certain cases now. Also, the type of BMT has shifted from autologous (using a person's own healthy cells) to allogeneic (cells donated by another person).



Learn more about

- [Transplant for children and teens at BeTheMatch.org](https://www.bethematch.org)
- [Clinical trials for children at CTsearchsupport.org](https://www.ctsearchsupport.org)
- [More study summaries at CIBMTR.org](https://www.cibmtr.org)

Source

Turcotte LM, Whitton JA, Leisenring WM, et al. [Chronic conditions, late mortality, and health status after childhood AML: a Childhood Cancer Survivor Study report.](#) *Blood.* 2023 Jan 5;141(1):90-101. PMC9837436. doi: 10.1182/blood.2022016487.

About this research summary

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