

[Home](#) > [Research and Advocacy](#) > [Research Summaries](#) > [New Chemotherapy Regimen Reduces Recurrence of ALL for Children and Young Adults](#)

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New Chemotherapy Regimen Reduces Recurrence of ALL for Children and Young Adults [1]

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A new study shows that using high-dose methotrexate (multiple brand names) for children and young adults with a type of acute lymphoblastic leukemia (ALL) called high risk B-precursor ALL reduces the risk of recurrence when compared with the standard methotrexate regimen. Recurrence is when the ALL comes back after treatment.

Methotrexate is part of standard chemotherapy for children with ALL. It is usually given with asparaginase (Cristanaspase, Elspar, L-Asnase), a combination called the Capizzi regimen that starts with low doses of methotrexate that gradually increase over time. This regimen reduces the risk that the disease will come back in the bone marrow, but does not decrease recurrences in the central nervous system (CNS; the brain and spinal cord). To lower CNS recurrences, researchers compared high-dose methotrexate (doses 50 times higher than the starting dose used for the Capizzi regimen) with the standard Capizzi regimen for patients between the ages of one and 30 with newly-diagnosed ALL.

Five years after treatment, researchers found that 82% of the patients who received high-dose methotrexate had not had a recurrence, compared with 75% of patients who received the Capizzi regimen. The patients who received high-dose methotrexate also had fewer bone marrow recurrences and experienced fewer fevers caused by a low number of white blood cells (a common side effect of chemotherapy).

What this means for patients

“Pediatric ALL was once a deadly form of leukemia, and now it’s one of the most curable. With these results, we now have an approach that will raise cure rates even higher,” said lead author Eric C. Larsen, MD, Director of the Maine Children’s Cancer Program and the Division of Pediatric Hematology/Oncology at the Barbara Bush Children’s Hospital at Maine Medical Center in Portland. “Based on the findings from this study, all current and upcoming treatment plans for children newly diagnosed with this type of ALL will use this regimen.”

Questions to ask your child's doctor

- What type of leukemia does my child have?
- What are the treatment options?
- Do you recommend high-dose methotrexate?
- What are the short-term and long-term side effects of treatment? How can they be managed?

For More Information

[Guide to Childhood ALL](#) [2]

[Cancer in Children](#) [3]

[Understanding Chemotherapy](#) [4]

[Childhood Cancer Survivorship](#) [5]

[Late Effects of Childhood Cancer](#) [6]

Links:

[1] <http://www.cancer.net/new-chemotherapy-regimen-reduces-recurrence-all-children-and-young-adults>

[2] <http://www.cancer.net/patient/Cancer+Types/Leukemia+-+Acute+Lymphoblastic+-+ALL+-+Childhood>

[3] <http://www.cancer.net/patient/Coping/Age-Specific+Information/Cancer+in+Children>

[4]

<http://www.cancer.net/patient/All+About+Cancer/Cancer.Net+Feature+Articles/Treatments%2C+Tests%2C+and+Procedures/Un>

[5] <http://www.cancer.net/patient/Survivorship/Childhood+Cancer+Survivorship>

[6]

<http://www.cancer.net/patient/All+About+Cancer/Cancer.Net+Feature+Articles/After+Treatment+and+Survivorship/Late+Effects+>