

## [Ependymoma - Childhood - Latest Research](#) [1]

This section has been reviewed and approved by the [Cancer.Net Editorial Board](#) [2], 11/2015

**ON THIS PAGE:** You will read about the scientific research being done now to learn more about ependymoma and how to treat it. To see other pages, use the menu on the side of your screen.

Doctors are working to learn more about ependymoma, ways to prevent it, how to best treat it, and how to provide the best care to children diagnosed with this disease. The following areas of research may include new options for patients through clinical trials. Always talk with your child's doctor about the diagnostic and treatment options best for your child.

- **Tumor genetics.** New research has shown that there are several different subgroups of ependymoma that differ based on the patterns of changes to the genes within each tumor. Although research in this area is early, studies are being done to find out if these genetic differences can help find new ways to treat ependymoma.
- **Improved radiation therapy techniques.** Although the use of radiation therapy is not a standard treatment for children younger than age 3, its usefulness and side effects are being studied in a clinical trial for children with ependymoma in this age group. In addition, new techniques for planning and delivering radiation therapy are also being evaluated that better target the tumor, reducing damage to healthy parts of the brain. Proton beam therapy is also being studied as a treatment for ependymoma. Proton beam therapy is a type of external-beam radiation therapy that uses protons rather than x-rays. At high energy, protons can destroy cancer cells.
- **New combinations of chemotherapy and other treatments.** New types of

chemotherapy and combinations of drugs are being researched with the goal of shrinking any tumor that remains after surgery. This use of chemotherapy is allowing doctors to perform additional surgery for children with ependymoma that was not completely removed during the original surgery. The risks and benefits of this are also being studied. In addition, the use of chemotherapy after radiation therapy is being studied to find out if the combination can better manage tumor growth over the long term.

- **Predicting recurrences.** The molecular features of a specific tumor are being studied to find out if they can help doctors predict the likelihood that the cancer will come back after treatment.
- **Palliative care.** Clinical trials are underway to find better ways of reducing symptoms and side effects of current ependymoma treatments in order to improve patients' comfort and quality of life.

## Looking for More About the Latest Research?

If you would like additional information about the latest areas of research regarding childhood cancer, explore these related items that take you outside of this guide:

- To find clinical trials specific to your child's diagnosis, talk with your child's doctor or [search online clinical trial databases now](#) [3].
- Review research on childhood cancer announced at [ASCO's Annual Meetings](#) [4].
- Visit ASCO's [CancerProgress.Net](#) [5] website to learn more about the historical pace of research for childhood cancers. Please note this link takes you to a separate ASCO website.
- Visit the website of the [Conquer Cancer Foundation](#) [6] to find out how to help support research for every cancer type. Please note this link takes you to a separate ASCO website.

*The [next section in this guide is Coping with Side Effects](#) [7] and it offers some guidance in how to cope with the physical, emotional, and social changes that ependymoma and its treatment can bring. Or, use the menu on the side of your screen to choose another section to continue reading this guide.*

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**Links**

[1] <http://www.cancer.net/cancer-types/ependymoma-childhood/latest-research>

[2] <http://www.cancer.net/about-us>

[3] <http://www.cancer.net/node/24878>

[4] [http://www.cancer.net/research-and-advocacy/research-summaries?field\\_page\\_topic\\_tid\\_2=All&field\\_page\\_topi](http://www.cancer.net/research-and-advocacy/research-summaries?field_page_topic_tid_2=All&field_page_topi)  
[c\\_tid=267&date\\_filter%5bvalue%5d%5byear%5d=](http://www.cancer.net/research-and-advocacy/research-summaries?field_page_topic_tid_2=All&field_page_topi)

[5] <http://www.cancerprogress.net/timeline/pediatric>

[6] <https://www.conquercancerfoundation.org/research-results>

[7] <http://www.cancer.net/node/18778>