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What Are the Differences Between Cancers in Adults and Children?

Cancer starts when cells in the body begin to grow out of control. Cells in nearly any part of the body can become cancer, and can then spread to other areas of the body. (To learn more about cancer and how it starts and spreads, see [Cancer Basics](#)¹.) Although this is true for both childhood and adult cancers, there are differences in the types of cancers that children tend to get, as well as how they are treated.

The types of cancers are different

The types of cancers that develop in children are often different from the types that develop in adults. Unlike many cancers in adults, childhood cancers are not strongly linked to lifestyle or environmental risk factors. And only a small number of childhood cancers are caused by DNA (gene) changes that are passed from parents to their child.

Treatment is often more successful

With some exceptions, childhood cancers tend to respond better to certain treatments. This might be because of differences in the cancers themselves, as well as because children often get more intense treatments. Also, children usually don't have many of the other health problems that adults with cancer might have, which can often get worse with treatment.

Long-term side effects are more of a concern

On the other hand, children's bodies are still growing, and they're more likely to have side effects from some types of treatment. For example, children (especially very young children) are more likely to be affected by radiation therapy. Many cancer treatments

also can cause [long-term side effects](#)², so children who have had cancer will need careful follow-up for the rest of their lives.

Children with cancer are treated at pediatric cancer centers

In the United States, most children and teens with cancer are treated at a [center that is a member of the Children's Oncology Group \(COG\)](#)³. All of these centers are associated with a university or children's hospital. These centers offer the advantage of being treated by a team of specialists who know the differences between adult and childhood cancers, as well as the unique needs of children and teens with cancer and their families. This team usually includes pediatric oncologists (childhood cancer doctors), surgeons, radiation oncologists, pediatric oncology nurses, physician assistants (PAs), and nurse practitioners (NPs). As we have learned more about treating childhood cancer, it has become even more important that treatment be given by experts in this area.

These centers also have psychologists, social workers, child life specialists, nutritionists, rehabilitation and physical therapists, and educators who can support and educate the entire family. (See [When Your Child Is Going Through Cancer Treatment](#)⁴ for more on the professionals who help treat children with cancer.)

Any time a child is diagnosed with cancer, it affects every family member and nearly every aspect of the family's life. You can read more about coping with these changes in [If Your Child Is Diagnosed With Cancer](#)⁵.

Hyperlinks

1. www.cancer.org/cancer/cancer-basics.html
2. www.cancer.org/treatment/children-and-cancer/when-your-child-has-cancer/late-effects-of-cancer-treatment.html
3. www.cancer.org/treatment/children-and-cancer/when-your-child-has-cancer/finding-treatment/pediatric-cancer-centers.html
4. www.cancer.org/treatment/children-and-cancer/when-your-child-has-cancer/during-treatment.html
5. www.cancer.org/treatment/children-and-cancer/when-your-child-has-cancer/after-diagnosis.html

References

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Wiener LS, Pao M, Alderfer MA. Chapter 44: Psychiatric and Psychosocial Support for the Child and Family. In: Pizzo PA, Poplack DG, eds. *Principles and Practice of Pediatric Oncology*. 7th ed. Philadelphia, Pa: Lippincott Williams & Wilkins; 2016.

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