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## After Childhood Leukemia Treatment

Get information about how to live well after childhood leukemia treatment and make decisions about next steps.

### Living as a Childhood Leukemia Survivor

For many people, cancer treatment often raises questions about next steps as a survivor.

- [Living as a Childhood Leukemia Survivor](#)

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## Living as a Childhood Leukemia Survivor

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During [treatment for childhood leukemia](#)<sup>1</sup>, the main concerns for most families are the daily aspects of getting through treatment and beating the leukemia. After treatment, the concerns tend to shift toward the long-term effects of the leukemia and its treatment, and concerns about the leukemia coming back.

It's certainly normal to want to put the leukemia and its treatment behind you and to get back to a life that doesn't revolve around cancer. But it's important to realize that follow-up care is a central part of this process that offers your child the best chance for recovery and long-term survival.

## Follow-up exams and tests

For several years after treatment, regular follow-up exams will be very important. The doctors will watch for possible signs of leukemia, as well as for short-term and long-term [side effects of treatment](#)<sup>2</sup>.

Checkups typically include careful physical exams and [lab tests](#)<sup>3</sup>, and sometimes might include [imaging tests](#)<sup>4</sup>. The schedule for these checkups will depend on the type and subtype of leukemia, the treatment given, and other factors. Checkups will usually be monthly during the first year, and then less often for at least 5 years after therapy. After that time, most children see their doctor at least yearly for a checkup.

For the most common types of leukemia in children ([ALL](#)<sup>5</sup> and [AML](#)<sup>6</sup>), if the leukemia does come back, it is most often while the child is still being treated or within a year or so after finishing treatment. It is unusual for ALL or AML to return if there are no signs of the disease within the next 2 years.

A benefit of follow-up care is that it gives you a chance to discuss questions and concerns that come up during and after your child's recovery. For example, almost any cancer treatment can have side effects. Some go away soon after treatment, but others can last a long time, or might not even show up until years later. It's important to report any new symptoms to the doctor right away, so that the cause can be found and treated, if needed.

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watch for and when to contact the doctor

## Keeping health insurance and copies of medical records

As much as you might want to put the experience behind you once treatment is completed, it's also very important to keep good records of your (child's) medical care during this time. Gathering these details soon after treatment may be easier than trying to get them at some point in the future. This can be very helpful later on if you (or your child) change doctors. Learn more about this in [Keeping Copies of Important Medical Records](#)<sup>8</sup>.

It's also very important to keep [health insurance](#)<sup>9</sup> coverage. Tests and doctor visits can cost a lot, and even though no one wants to think of the tumor coming back, this could happen.

## Late and long-term effects of treatment

Because of major advances in treatment, most children treated for leukemia now live into adulthood, so their health as they get older has become more of a concern in recent years.

Just as the treatment of childhood leukemia requires a very specialized approach, so does the care and follow-up after treatment. The earlier problems are recognized, the more likely it is they can be treated effectively.

Childhood leukemia survivors are at risk, to some degree, for several possible late effects of their treatment. This risk depends on a number of factors, such as the type and subtype of leukemia, the type and doses of treatments they received, and the age of the child at the time of treatment. It's important to discuss what these possible effects might be with your child's medical team so you know what to watch for and report to the doctor.

## Second cancers

Children who have been treated for leukemia are often at higher risk of developing other cancers later in life. One of the most serious possible side effects of acute lymphocytic leukemia (ALL) therapy is a small risk of getting acute myeloid leukemia (AML) later on.

This occurs in a small percentage of patients after getting certain chemotherapy drugs,

such as **epipodophyllotoxins** (etoposide, teniposide), **alkylating agents** (cyclophosphamide, chlorambucil), or **anthracyclines** (daunomycin, doxorubicin). Of course, the risk of getting these second cancers must be balanced against the obvious benefit of treating a life-threatening disease such as leukemia.

### **Heart and lung problems**

Certain chemotherapy drugs or radiation therapy to the chest can sometimes cause heart or lung problems later in life. The risks of heart disease and stroke are much higher among those treated for ALL as children, so careful follow-up is very important.

### **Learning problems**

Treatment that includes radiation therapy to the brain or some types of chemotherapy may affect learning ability in some children. Because of this, doctors try to limit treatments that could affect the brain (including radiation) as much as possible.

### **Growth and development**

Some cancer treatments may affect a child's growth, so they might end up a bit shorter as adults. This is especially true after stem cell transplants. This can be helped by treating survivors with growth hormone, if needed. Treatment might also affect the levels of other hormones in the body, which can increase the risk of health issues such as thyroid problems, obesity, and diabetes.

### **Fertility issues**

Cancer treatment may also affect sexual development and ability to have children later in life. Talk to your child's cancer care team about the risks of infertility with treatment, and ask if there are options for preserving fertility, such as sperm banking. For more information, see [Preserving Fertility in Children and Teens With Cancer](#)<sup>10</sup>.

### **Bone problems**

Bone damage or osteoporosis (thinning of the bones) may result from the use of prednisone, dexamethasone, or other steroid drugs.

There may be other possible complications from chemotherapy or other treatments as well. Your child's doctor should carefully review any possible problems with you before your child starts treatment.

## **Long-term follow-up guidelines**

To help increase awareness of late effects and improve follow-up care for childhood cancer survivors throughout their lives, the Children's Oncology Group (COG) has developed long-term follow-up guidelines for survivors of childhood cancers. These guidelines can help you know what to watch for, what types of screening tests should be done, and how late effects can be treated.

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4. [www.cancer.org/cancer/types/leukemia-in-children/detection-diagnosis-staging/how-diagnosed.html](http://www.cancer.org/cancer/types/leukemia-in-children/detection-diagnosis-staging/how-diagnosed.html)
5. [www.cancer.org/cancer/types/leukemia-in-children/treating/children-with-all.html](http://www.cancer.org/cancer/types/leukemia-in-children/treating/children-with-all.html)
6. [www.cancer.org/cancer/types/leukemia-in-children/treating/children-with-aml.html](http://www.cancer.org/cancer/types/leukemia-in-children/treating/children-with-aml.html)
7. [www.cancer.org/cancer/survivorship/long-term-health-concerns/survivorship-care-plans.html](http://www.cancer.org/cancer/survivorship/long-term-health-concerns/survivorship-care-plans.html)
8. [www.cancer.org/cancer/survivorship/long-term-health-concerns/keeping-copies-of-important-medical-records.html](http://www.cancer.org/cancer/survivorship/long-term-health-concerns/keeping-copies-of-important-medical-records.html)
9. [www.cancer.org/cancer/financial-insurance-matters/understanding-health-insurance.html](http://www.cancer.org/cancer/financial-insurance-matters/understanding-health-insurance.html)
10. [www.cancer.org/cancer/managing-cancer/side-effects/fertility-and-sexual-side-effects/preserving-fertility-in-children-and-teens-with-cancer.html](http://www.cancer.org/cancer/managing-cancer/side-effects/fertility-and-sexual-side-effects/preserving-fertility-in-children-and-teens-with-cancer.html)
11. [www.survivorshipguidelines.org](http://www.survivorshipguidelines.org)
12. [www.cancer.org/cancer/survivorship/children-with-cancer/late-effects-of-cancer-treatment.html](http://www.cancer.org/cancer/survivorship/children-with-cancer/late-effects-of-cancer-treatment.html)
13. [www.cancer.org/cancer/survivorship/children-with-cancer/after-treatment.html](http://www.cancer.org/cancer/survivorship/children-with-cancer/after-treatment.html)
14. [www.cancer.org/cancer/survivorship/children-with-cancer/after-treatment/returning-to-school.html](http://www.cancer.org/cancer/survivorship/children-with-cancer/after-treatment/returning-to-school.html)

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## Written by

The American Cancer Society medical and editorial content team  
(<https://www.cancer.org/cancer/acs-medical-content-and-news-staff.html>)

Our team is made up of doctors and oncology certified nurses with deep knowledge of cancer care as well as journalists, editors, and translators with extensive experience in medical writing.

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