

## **School Problems after Childhood Cancer Treatment**

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Most children diagnosed with cancer become long-term survivors. The survival rate for childhood cancer is close to 80% due to successful treatments. These treatments, however, can cause damage to healthy tissue while killing cancer cells. The damage can cause health problems after cancer therapy which are called late effects. Some late effects develop soon after therapy while others may not occur until years after cancer treatment. Survivors are at risk for certain late effects based on the type of treatment they received. Survivors can find out about late effects they are at risk for by visiting a cancer survivor clinic.

Some cancer therapy can cause survivors to have problems with school and learning. These might include problems with:

- Attention
- Planning and organizing
- Memory
- Learning – especially math and reading
- Decreased IQ

Survivors at risk for school problems are those who received treatment damaging the brain including:

- Brain tumors
- Brain surgery
- Radiation to the head or brain
- Certain chemotherapy
  - High doses of Methotrexate
  - High doses of Cytarabine (Ara-C)
  - Chemotherapy given intrathecally (IT) directly into the spinal fluid

Survivors treated at a young age are also at higher risk of having school problems. If a survivor had school problems before cancer treatment, they will be at higher risk for having problems after finishing treatment.

Survivors who have had these treatments should be screened for problems after they complete treatment and as they continue to grow and move through schooling. Problems with learning can develop during treatment or may not happen until years after treatment. Below are signs your child might have a problem:

- Trouble in school (poor grades, low performance on standardized tests, etc.)
- Problems with reading or math
- Difficulty paying attention
- Memory Problems

If you think your child is having any of these problems you can speak to your doctor about a neuropsychological evaluation. During a neuropsychological evaluation the survivor sees a psychologist with special training understanding brain-behavior relationships, called a neuropsychologist. You should look for a neuropsychologist who is familiar with cancer therapy and its effects on learning. During the evaluation the survivor is given tests which help the neuropsychologist understand the child's thinking and behavior skills. After the evaluation suggestions for improvement will be reviewed with the survivor and their parents. The plan will be communicated with the survivor's school and healthcare providers.

Special education services/academic accommodations are often available to children with disabilities/special needs. The three main federal laws that parents should be aware of are the Individuals With Disabilities Act (IDEA) and Section 504 of the Rehabilitation Act of 1973 for students from Kindergarten through twelfth grade and the Americans with Disabilities Act (ADA) for students in college. Together, these laws provide avenues through which accommodations and support can be provided, such as an Individualized Education Program (IEP) or 504 Accommodation Plan.

Survivors aged 18 and older can benefit from vocational rehabilitation services aimed at helping people with disabilities function and thrive as adults. Programs vary by state. In Georgia survivors can visit [www.vocrehabga.org/](http://www.vocrehabga.org/) for more information.

Childhood cancer survivors can be at risk for a variety of late effects due to their cancer treatment. School problems can be successfully managed if survivors receive appropriate screening and treatment.

### **School Problems After Childhood Cancer Treatment**

- 1. Survivors are at highest risk of having learning problems if they were treated at a young age with radiation to the head or brain, high doses of cytarabine or methotrexate, chemotherapy given directly in the spinal fluid, or had a brain tumor.**
- 2. If your survivor is having problems in school talk with your doctor about a neuropsychological evaluation.**
- 3. Monitoring of the child's academic functioning should be done as the child moves through schooling. When there are problems, neuropsychological testing is helpful for understanding neurocognitive strengths and weaknesses.**

References:

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