

## CANCER IN CHILDREN

Last Reviewed April 2006

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**Definition:** Childhood cancer affects about 14 of every 100,000 children in the United States each year. Among all children and adolescents, the most common are leukemia, lymphoma, and brain cancer. As children enter their teen years, there is an increase in the incidence of osteosarcoma. Almost all childhood cancer arise from non-inherited mutations in the genes of growing cells. The American Cancers Society web site provides information on childhood cancer

[http://www.cancer.org/docroot/CRI/content/CRI\\_2\\_4\\_1X\\_What\\_are\\_the\\_types\\_of\\_childhood\\_cancers\\_7.asp](http://www.cancer.org/docroot/CRI/content/CRI_2_4_1X_What_are_the_types_of_childhood_cancers_7.asp).

In Maine, cancer for both men and women are slightly higher than the national average:

	ME	US
New Cases of Cancer Per 100,000 Persons MEN (2001)	613.5	544.8
New Cases of Cancer Per 100,000 Persons WOMEN (2001)	448.4	404.9

Because mutations occur randomly and unpredictably, there is currently no effective way to prevent them. **About 80% of children who have cancer survive their disease.** However, cancer survivors may find themselves facing unique physical and emotional challenges after treatment.

Cancers in children often are difficult to recognize. Parents should see that their children have regular medical checkups and should be alert to any unusual symptoms that persist. These include:

- an unusual mass or swelling;
- unexplained paleness and loss of energy;
- sudden tendency to bruise;
- a persistent, localized pain or limping;
- prolonged, unexplained fever or illness;
- frequent headaches often with vomiting;
- sudden eye or vision changes;
- excessive, rapid weight loss;
- altered moles/birthmarks;
- unusual bleeding/discharge;
- nagging cough or hoarseness;
- change in bowl or bladder habits;
- non-healing sore; and
- fever or night sweats.

Childhood cancers can be treated by a combination of therapies. Treatment is coordinated by a team of experts including oncologic physicians, pediatric nurses, social workers, psychologists, and others who assist children and their families.

### **School Nurse Responsibility:**

- Obtain documentation of prescriptions and potential need for accommodation from physician.
- Obtain appropriate information from family. Understand the diagnosis and treatment provided.
- Establish need for educational services during illness or treatment, such as home schooling.
- Communicate with the family and, with permission, with hospital and/or physician, to ease transition back to school.
- Develop an IHP as needed, involving the family, student, as appropriate, and the physician. Include protocol to reduce risk of exposure to infectious diseases when the student is immunosuppressed.
- Provide information to teacher(s) that will assist in the student's learning. It is important to remember that creativity and the ability to learn information that is heard, not read, is not usually affected by cancer or its treatment. Sometimes students will improve when their work is oral and not written or when they can use a computer, books on tape, or are given more time to complete assignments.
- Help teachers understand other possible consequence of the disease and treatment such as fatigue, depression, weakness, and emotional lability.
- Refer family as needed to medial and social services, such as: Children With Special Health Care Needs at the Maine CDC, MaineCare, Maine Childrens' Cancer Program, and support groups.
- Understand that the Cancer Centers encourage the school nurses to call them for information, education, and consultation (with parental permission).
- Understand the student's social/emotional issues. Refer to the school counselor or mental health services as needed.
- Work with school support/resource team for reintegration into school.
- Work with teachers and other school staff to deal with grief when the diagnosis is terminal. Refer to Center for Grieving Children as appropriate.

### **Resources:**

Maine Medical Center Children's Cancer Programs - (207) 885-7565.  
[http://www.mmc.org/mmc\\_body.cfm?id=2193](http://www.mmc.org/mmc_body.cfm?id=2193)

The Center for Grieving Children – <http://www.cgcmaine.org>

American Brain Tumor Association – [www.abta.org/kids](http://www.abta.org/kids) [www.abta.org/forpros.htm](http://www.abta.org/forpros.htm)  
[www.abta.org/focusingontumors.php](http://www.abta.org/focusingontumors.php)

Children with Special Health Care Needs, Maine CDC -  
<http://www.maine.gov/dhhs/boh/cshn/home.html>

American Cancer Society -  
[http://www.cancer.org/docroot/CRI/CRI\\_2\\_6x\\_Children\\_and\\_Cancer.asp](http://www.cancer.org/docroot/CRI/CRI_2_6x_Children_and_Cancer.asp)

Candlelighters Children's Cancer Foundation - <http://www.candlelighters.org/>

National Cancer Institute - <http://www.cancer.gov/>

Ronald McDonald House - <http://www.rmhc.org/rmhc/index.html>

Hootman, Janis RN, PhD "Quality Nursing Interventions in the School Setting: Procedures, Models, and Guidelines", National Association of School Nurses, Inc., 1996.

Nancy Dube  
School Nurse Consultant  
Department of Education  
624-6694/Nancy.Dube@maine.gov