

What is it?

Returning to school after cancer treatment can be scary and challenging. But with good communication, teamwork and planning, it is a safe possibility. Side effects during and after cancer treatment can be short term, long term or late effects. Considerations include the type of cancer, age, gender, treatment and effects, as well as child's previous health history. Families and schools together must consider the child's risk for infection, stamina, illness and risk for exposure to other foreign bodies. It is important for families, teachers and classmates to encourage conversations about questions and fears. Remember, the child may feel "different" so its important to validate their concerns. Students need to be supported emotionally, physically and academically. The most obvious physical concerns include hair loss, weight loss bruising, paleness and mouth sores. It is up to the family and the child to decide how much they want shared with peers, but classmates should be educated according to their developmental age when appropriate. It is very important for children to return to school and resume a sense of normalcy filled with friends and fun.



Common childhood cancers

- ⇒ **Leukemia:** Affects white blood cells produced in bone marrow and is the most common form of childhood cancer. Common types are Acute lymphocytic leukemia (ALL) and Acute myelogenous leukemia (AML).
- ⇒ **Brain tumor:** Second most common form of childhood cancer.
- ⇒ **Sarcoma:** Type of tumor that occurs in the body. Osteogenic sarcoma occurs most commonly in large bones from arm or leg. Ewing's sarcoma most commonly occurs in spine, rib or pelvis.
- ⇒ **Retinoblastoma:** Cancer affecting the eye.
- ⇒ **Lymphoma:** Cancer that affects lymph system and tissues. Hodgkin's lymphoma affects lymph nodes near skin surface while non-Hodgkin's (NHL) occurs most commonly in bowel and chest.
- ⇒ **Neuroblastoma:** A tumor that presents in nerve tissue affecting the sympathetic nervous system. Most commonly presents in adrenal glands above kidneys.
- ⇒ **Wilm's tumor:** The most common kidney cancer; highly curable.

Treatment

Chemotherapy is the use of medications to kill cancer cells by attacking cells that are growing too fast. Cancer cells grow and divide much more rapidly than most normal cells. However, some normal cells in the bone marrow, hair follicles, and lining of the mouth and intestines also normally grow fast. Chemotherapy, unfortunately, then also affects these cells. A child can then suffer nausea, vomiting, hair loss, weight loss and low cell count. Chemotherapy medications can be given intravenously, orally or by injection.

Radiation uses energy, like X-rays, to kill cancer cells. Radiation can be delivered from an external source or from an internal one implanted near the tumor. Radiation can also affect healthy cells just as chemotherapy does.

Surgery is often performed to determine if a tumor is cancerous and determine if the disease has spread.

Below is a list of effects of treatment from *The American Cancer Society* (cancer.org). Whether resulting from the type of cancer, specific treatment, surgery or age of child, the following effects may be seen:

<u>Brain</u>	<u>Pituitary</u>	<u>Eye</u>
Learning disabilities	Fatigue	Cataracts
Behavior problems	Poor appetite	Vision loss
Poor hand-eye coordination	Cold intolerance	Blurred or double vision
Memory and attention problems	Delayed growth	Light sensitivity
Seizures	<u>Low thyroid</u>	Dry or watery eyes
Headaches	Tiredness	Discolored sclera
<u>Muscle and bone</u>	Dry skin, thinning hair	<u>Hearing</u>
Pain	Weight gain	Ringing in ears
Joint stiffness	Constipation	Differentiating background noise
Weak bones	Depression	Dizziness
<u>Lungs</u>	<u>High thyroid</u>	<u>Teeth</u>
Shortness of breath	Nervousness	Missing or small teeth
Cough	Weight loss	Sensitive
Increased risk of infection	Trouble sleeping	Gum disease
	Diarrhea	

Suggested school accommodations

Performance areas most commonly affected include mathematics, problem solving, concentration and attention span, reading, spelling, handwriting, processing and memory. Students at greatest risk for such deficits include those treated in early childhood, those with ALL, NHL, brain and head tumors, and girls. Cancer survivors are just as likely to graduate from high school, but they are 3-4 times more likely to require some degree of special education and/or repeat grade levels.

As educators, familiarize yourself with early warning signs of learning difficulties. Before grades begin to fall, a student's behavior may demonstrate easy frustration and irritation with school. School staff should monitor the student for restlessness, sadness, anxiety, fear and lack of interest. Children may need extra support, but they also don't want it to be obvious to their peers. Preparing a school reentry plan is *key*. Communication between the child, family, school nurse, educators, counselors, support teams and medical personnel is very important.

Remember, everyone on the team is working towards the same goal. Parents should be encouraged to share their thoughts and educators should be encouraged to share their impressions. Prepare the best form of open communication whether phone calls, emails, written notes or face to face meetings. Communicate *early and often*. Try out, evaluate and report new strategies to support the child.

- Prepare classmates
- Extra time, or limited homework
- Leaving class early to get to next
- Buddy to carry books
- Tutoring services
- Breaks or rest period
- Shortened or late school day
- Preferred classroom seating
- Offer visual schedule
- Using a computer instead of hand-writing
- Use of tape-recorder for lecture
- Lockers on different levels
- Bathroom passes
- Hat or scarf
- Carrying a water bottle
- Assign a classroom aide
- Allow for oral vs. written testing
- Special parking pass close to school
- Copies of notes and lectures
- Training for staff
- Snacks
- Extra set of textbooks to leave at home

Peers and Classroom

The student and family should decide what information they want shared with classmates. The student or parent may prefer to present information themselves or they may choose to not be present at all. Regardless, information that is shared should be done in a developmentally appropriate way.

- ⇒ **K-3rd:** believe they can “catch cancer” or get it from misbehaving
- ⇒ **4th-6th:** can understand difference in contagious disease but need probability facts about getting cancer while learning to empathize
- ⇒ **7th-12th:** prefer scientific, factual approach with guidance on peer relationships and how to support others’ feelings

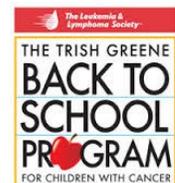
Topics may include:

- Overview of cancer
- Medical procedure and treatment
- Side effects, changes in appearance
- Child’s experiences, feelings, emotions
- Ways students can help support

SHNIC school nurses information:

Specific health issues for individual health care plans

- Type of cancer, date of diagnosis
- Medical history, including past surgeries
- Date of medical clearance to return to school
- Current medication list for home and school
- Hidden medical devices (central lines, feeding pumps, medication pump, etc.)
- Isolation precautions
- Nutrition orders and fluid goal
- Supplemental nutrition, thickeners for liquids, etc.
- Fever protocol
- Infection protocol (if other students diagnosed with illness in school)
- Nose bleed protocol
- Pain or headache protocol (Do not give Motrin or Aspirin due to bleeding)
- Physical accommodations



Resources & Manuals

American Cancer Society
www.cancer.org

Leukemia and Lymphoma Society
www.LLS.org

School Personnel Webinars
<http://curesearch.org/School-Personnel-Webinars>

Cancer Patient-Family Education Materials
<http://www.chop.edu/health-resources/cancer-patient-family-education-materials>

The Trish Greene Back to School Program for the Child with Cancer
<https://www.lls.org/events/the-trish-greene-back-to-school-program-for-children-with-cancer>

School Intervention and Re-Entry Program
<http://www.stonybrookchildrens.org/school-reentry>

Cure Search for Children's Cancer
<http://curesearch.org/Learning-Problems-During-or-After-Treatment?singlepage=1>