

# CANCER

## What is it?

Human cells grow and divide to form new cells as the body requires. When cells become old or damaged, they are replaced by new cells. When cancer develops, this process breaks down. In all types of cancer, certain cells within the body begin to divide without stopping and spread into surrounding tissues. Cancer cells differ from normal cells because they can grow invasively and out of control. They ignore the body's signals to stop, they influence healthy cells, and invade the body's immune system. The average age of children diagnosed with cancer is 6 and cancer remains the leading cause of death by disease among children in the United States.

Side effects during and after cancer treatment can cause short term, long term, or late effects. The type of cancer, age and gender of the child, treatment, side effects, and the child's previous health history are all factors affecting the child's health care plan.

Returning to school after cancer treatment can be scary and challenging. A student can safely return to school after treatment when families and schools have open communication and a well-developed plan. Families and schools must work together and consider factors such as a child's risk for infection, stamina, and risk for exposure to other foreign bodies.

It is important for families, teachers, and classmates to encourage conversations regarding questions and fears about the illness. Validate student concerns and develop plans to support them emotionally, physically and academically. The most obvious physical concerns include hair loss, weight loss, bruising, paleness and mouth sores. Involve the student and family with how much they want shared with peers and educate classmates according to their developmental age when appropriate. Educational topics could include cancer overview, medical treatment and side effects, change in appearance, child experience and emotions, and ways students can support. It is very important for children to return to school and resume a sense of normalcy.

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## What are the effects?

Whether resulting from the type of cancer, specific treatment, surgery or age of child, the following side effects are possible:

<b>Brain</b>	Learning disabilities, behavior problems, poor hand-eye coordination, memory and attention problems, seizures, headaches
<b>Muscle and bone</b>	Pain, joint stiffness, weak bones
<b>Lungs</b>	Shortness of breath, cough, increased risk of infection
<b>Pituitary</b>	Fatigue, poor appetite, cold intolerance, delayed growth
<b>Low thyroid</b>	Tiredness, dry skin, thinning hair, weight gain, constipation, depression
<b>High thyroid</b>	Nervousness, weight loss, trouble sleeping, diarrhea
<b>Eye</b>	Cataracts, vision loss, blurred or double vision, light sensitivity, dry or watery eyes, discolored sclera
<b>Hearing</b>	Ringling in ears, dizziness, differentiating background noise
<b>Teeth</b>	Missing or small teeth, sensitivity, gum disease



Kennedy Krieger Institute

The Specialized Health Needs Interagency Collaboration (SHNIC) program is a collaborative partnership between the Kennedy Krieger Institute and the Maryland State Department of Education.

## Suggested school accommodations

Cancer survivors and students undergoing cancer treatment 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. Performance areas most commonly affected include mathematics, problem solving, concentration and attention span, reading, spelling, handwriting, processing and memory. Preparing a school reentry plan is key. Communication between the child, family, school nurse, educators, counselors, support teams and medical personnel is very important.

Supporting students with this condition in the school require educators and parents/guardian to work as a team. Some accommodations to consider for a 504/IEP could include:

- 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
- Staff education/training as appropriate
- Emergency Evacuation Plan (EEP)

## Specific health issues for Individualized Healthcare Plan

- 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, note side effects
- Orders for medical device (central lines, feeding pumps, medication pump, etc.)
- Nutrition orders, supplemental nutrition, thickeners for liquids, etc.
- Fluid intake goal
- Fever protocol
- Infection protocol, plan if other students diagnosed with illness in school
- Plan for nose bleed, pain, headache
- Physical accommodations
- Communicate with school staff, parents/guardian, and provider any changes or concerns about the disease
- Emergency Care Plan(s) (ECP) related to medical needs in the school setting and staff education/training as appropriate for each

### Resources & Manuals

**The American Cancer Society**  
<https://www.cancer.org/>

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

**Leukemia and Lymphoma Society**  
<https://www.lls.org/>

**Stony Brook Children's- School Intervention and Re-Entry Plan**  
<http://www.stonybrookchildrens.org/school-reentry>