WHAT IS A CENTRAL NERVOUS SYSTEM TUMOR?
A central nervous system (CNS) tumor begins when normal cells in the brain or spinal cord change and grow uncontrollably, forming a mass called a tumor. A CNS tumor can be benign (noncancerous) or malignant (cancerous). The five most common types of CNS tumors in children are astrocytoma, brain stem glioma, ependymoma, germ cell tumor, and medulloblastoma.

WHAT IS THE FUNCTION OF THE CENTRAL NERVOUS SYSTEM?
The brain and spinal column make up the central nervous system, where all vital body functions are controlled. The brain is the center of thought, memory, and emotion. It controls the five senses, movement, and other basic functions, including heartbeat, circulation, and breathing. The spinal cord consists of nerves that carry information back and forth between the body and the brain. It controls sensation and the ability to use muscles (motor function).

WHAT DO STAGE AND GRADE MEAN?
The stage is a way of describing a cancer, such as where it is located, if or where it has spread, and whether it is affecting the functions of other organs in the body. Most CNS tumors are described by their grade, a measure of how much the tumor cells look like normal cells. Low-grade tumors are less aggressive than high-grade tumors. More information is available at www.cancer.net/cns.

HOW ARE CENTRAL NERVOUS SYSTEM TUMORS TREATED?
The treatment of a CNS tumor depends on the type of tumor, the size and location of the tumor, whether it is cancerous, whether the tumor has spread, possible side effects, the family’s preferences, and the child’s age and overall health. Surgery may be used to try to completely remove a tumor. If a tumor cannot be removed by surgery (inoperable), radiation therapy may be used. Chemotherapy is also used to treat many cancerous CNS tumors; it may be given after surgery or radiation therapy. Sometimes chemotherapy is used at the same time as radiation therapy. Stem cell transplantation may be used if a CNS tumor recurs (comes back after treatment).

When making treatment decisions, consider a clinical trial; most children with cancer are treated as part of one. Talk with your child’s doctor about all treatment options. The side effects of CNS tumor treatment can often be prevented or managed with the help of your child’s health care team.

HOW CAN I HELP MY CHILD OR TEEN COPE WITH A CENTRAL NERVOUS SYSTEM TUMOR?
Helping your child or teenager understand a cancer diagnosis is a key part of the coping process. Children and adolescents with cancer should be treated at a pediatric cancer center. These centers not only provide access to the latest treatments, they offer age-appropriate programs for social and emotional needs. Encouraging your child and other family members to share their emotions can be helpful in managing the diagnosis, treatment, and healing process.
QUESTIONS TO ASK THE DOCTOR
Regular communication is important in making informed decisions about your child’s health care. Consider asking the following questions of your child’s doctors:

- What type of tumor has been diagnosed?
- Where is the tumor located? Is it cancerous?
- What grade is the tumor? What does this mean?
- Would you explain my child’s treatment options?
- What clinical trials are open to my child?
- What treatment plan do you recommend for my child? Why?
- Who is part of the treatment team, and what does each member do?
- How will this treatment affect my child’s daily life? Will he or she be able to go to school and perform his or her usual activities?
- If I’m worried about managing the costs related to my child’s cancer care, who can help me with these concerns?
- What short-term and long-term side effects may be associated with my child’s cancer treatment?

- What follow-up tests will my child need, and how often will he or she need them?
- Where can I find emotional support for my child? For my family?
- Whom do I call for questions or problems?

Additional questions to ask the doctor can be found at www.cancer.net/cns.

TERMS TO KNOW
Benign:
A tumor that is not cancerous

Biopsy:
Removal of a tissue sample that is then examined under a microscope to check for cancer cells

Chemotherapy:
The use of drugs to destroy cancer cells

Clinical trial:
A research study that tests a new treatment or drug

Lymph node:
A tiny, bean-shaped organ that fights infection

Malignant:
A tumor that is cancerous

Metastasis:
The spread of cancer from where the cancer began to another part of the body

Neurosurgeon:
A doctor who specializes in treating a brain or spinal cord tumor with surgery

Pediatric oncologist:
A doctor who specializes in treating children and teens with cancer

Prognosis:
Chance of recovery

Radiation therapy:
The use of high-energy x-rays to destroy cancer cells

Tumor:
An abnormal growth of body tissue