Printed September 2, 2014 from http://www.cancer.net/cancer-types/central-nervous-system-childhood/diagnosis

Central Nervous System Tumors - Childhood - Diagnosis [1]

This section has been reviewed and approved by the Cancer.Net Editorial Board [2], 05/2014

ON THIS PAGE: You will find a list of the common tests, procedures, and scans that doctors can use to find out what?s wrong and identify the cause of the problem. To see other pages, use the menu on the side of your screen.

Doctors use many tests to diagnose a tumor, determine if it is cancerous, and find out if it has spread to another part of the body, called metastasis. Some tests may also determine which treatments may be the most effective. For most types of tumors, a biopsy is the only way to make a definitive diagnosis. If a biopsy is not possible, the doctor may suggest other tests that will help make a diagnosis. Imaging tests may be used to find out whether the tumor has spread. This list describes options for diagnosing a CNS tumor, and not all tests listed will be used for every child. Your child?s doctor may consider these factors when choosing a diagnostic test:

- Age and medical condition
- Type of tumor suspected
- Signs and symptoms
- Previous test results

In addition to a physical examination, the following tests may be used to diagnose a CNS tumor:

Computed tomography (CT or CAT) scan [3]. A CT scan creates a three-dimensional picture of the inside of the body with an x-ray machine. A computer then combines these images into a detailed, cross-sectional view that shows any abnormalities or tumors. A CT scan can also be used to measure the tumor?s size. Sometimes, a special dye called a contrast medium is given before the scan to provide better detail on the image. This dye can be injected into a patient?s vein or given as a pill to swallow.

Magnetic resonance imaging (MRI) [4]. An MRI uses magnetic fields, not x-rays, to produce detailed images of the body. A special dye called a contrast medium is given before the scan to create a clearer picture. This dye can be injected into a patient?s vein or given as a pill to swallow.

Biopsy [5]. A biopsy is the removal of a small amount of tissue for examination under a microscope. Other tests can suggest that a tumor is present, but only a biopsy can make a definite diagnosis. The sample removed during the biopsy is analyzed by a pathologist. A

pathologist is a doctor who specializes in interpreting laboratory tests and evaluating cells, tissues, and organs to diagnose disease. The type of biopsy performed depends on the location of the tumor.

After diagnostic tests are done, your child?s doctor will review all of the results with you. If the diagnosis is a tumor, these results also help the doctor describe the tumor; this is called staging and grading.

The next section helps explain how stages and grades are used for a CNS tumor. Use the menu on the side of your screen to select Stages and Grades, or you can select another section, to continue reading this guide.

Links:
[1] http://www.cancer.net/cancer-types/central-nervous-system-childhood/diagnosis
[2] http://www.cancer.net/about-us
[3] http://www.cancer.net/node/24486
[4] http://www.cancer.net/node/24578
[5] http://www.cancer.net/node/24406