

## **Ependymoma - Childhood - Diagnosis** [1]

This section has been reviewed and approved by the [Cancer.Net Editorial Board](#) [2], 08/2014

**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 cancer, and if so, 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 tumors, a biopsy is the only way to make a definitive diagnosis of cancer. 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 ependymoma, 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 ependymoma:

**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. MRI can also be used to measure the tumor's size. 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. A spinal MRI may be used to find out if the tumor has spread to the spine.

**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. For ependymoma, surgery is needed to get a sample of tissue (see [Treatment Options](#) [6]).

**Lumbar puncture (spinal tap).** A lumbar puncture is a procedure in which a doctor uses a needle to take a sample of cerebral spinal fluid (CSF) to look for tumor cells. CSF is the fluid that flows around the brain and the spinal cord. Doctors generally give an anesthetic to numb the lower back before the procedure. This procedure is generally done after ependymoma is diagnosed and the tumor is removed.

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

*The next section helps explain the different stages and grades for ependymoma. 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.*

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**Links:**

[1] <http://www.cancer.net/cancer-types/ependymoma-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>

[6] <http://www.cancer.net/node/18776>