

## **[Astrocytoma - Childhood - Diagnosis](#) [1]**

This section has been reviewed and approved by the [Cancer.Net Editorial Board](#) [2], 03/2016

**ON THIS PAGE:** You will find a list of common tests, procedures, and scans that doctors use to find the cause of a medical problem. To see other pages, use the menu.

Doctors use many tests to find, or diagnose, a tumor. They also do tests to learn if the tumor has spread to another part of the body from where it started. If this happens, it is called metastasis. For example, imaging tests can show if the tumor has spread. Imaging tests show pictures of the inside of the body. Doctors may also do tests to learn which treatments could work best.

For most tumor types, a biopsy is the only sure way for the doctor to know whether an area of the body has a tumor. In a biopsy, the doctor takes a small sample of tissue for testing in a laboratory. If a biopsy is not possible, the doctor may suggest other tests that will help make a diagnosis.

This list describes options for diagnosing astrocytoma, and not all tests listed will be used for every person. Your child's doctor may consider these factors when choosing a diagnostic test:

- The type of tumor suspected
- Your child's signs and symptoms
- Your child's age and medical condition
- The results of earlier medical tests

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

- **Computed tomography (CT or CAT) scan.** A [CT scan](#) [3] creates a 3-dimensional picture of the inside of the body using x-rays taken from different angles. 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).** An [MRI](#) [4] uses magnetic fields, not x-rays, to produce detailed images of the body. 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.** Other tests can suggest that a tumor is present, but only a [biopsy](#) [5] can make a definite diagnosis. For astrocytoma, a biopsy is done to determine the type and grade of the tumor. A doctor called a neurosurgeon will remove a small piece of tissue from the tumor. A neurosurgeon specializes in treating a CNS tumor using surgery. A pathologist then analyzes the sample. A pathologist is a doctor who specializes in interpreting laboratory tests and evaluating cells, tissues, and organs to diagnose disease.

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

*The [next section in this guide is Stages and Grades](#) [6]. It explains the system doctors use to describe the extent of the disease. Or, use the menu to choose another section to continue reading this guide.*

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## Links

[1] <http://www.cancer.net/cancer-types/astrocytoma-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/18494>