

Astrocytoma - Childhood - Stages and Grades [1]

This section has been reviewed and approved by the [Cancer.Net Editorial Board](#) [2], 03/2014

ON THIS PAGE: You will learn about how doctors describe astrocytoma's growth or spread. This is called the stage or grade. To see other pages, use the menu on the side of your screen.

Staging is a way of describing where a tumor is located, if or where it has spread, and whether it is affecting other parts of the body. Several types of childhood CNS tumors can spread through the spinal fluid that surrounds the brain and the spine. This information helps the doctor plan the treatment and determine the child's prognosis, which is the chance of recovery.

Grade. In addition to staging, doctors also describe astrocytoma by its grade, which describes how much tumor cells look like healthy cells when viewed under a microscope. The doctor compares the tumor tissue with healthy tissue. Healthy tissue usually contains many different types of cells grouped together. If the tumor cells look similar to healthy tissue and contains different cell groupings, it is called differentiated or a low-grade tumor. If the tumor tissue looks very different from healthy tissue, it is called poorly differentiated or a high-grade tumor. The tumor's grade can help the doctor predict how quickly it will spread. In general, the lower the tumor's grade, the better the prognosis.

The grades of astrocytoma are:

Low-grade tumor. A low-grade tumor has cells that look similar to normal CNS cells under a microscope. The tumor usually does not grow quickly or spread to other parts of the CNS, although both rapid growth and spread can sometimes occur. Tumors may appear in more than one spot in the brain, especially when they are associated with neurofibromatosis (see [Risk Factors](#) [3]). One of the more common low-grade tumors occurring almost only in children is called juvenile pilocytic astrocytoma, or JPA.

High-grade tumor. A high-grade tumor has cells that do not look similar to normal astrocytes. This type of tumor grows quickly and can spread throughout other parts of the CNS.

Recurrent astrocytoma. Recurrent astrocytoma is a tumor that has come back after treatment. Astrocytoma usually recurs near where it first started. If there is a recurrence, the tumor may need to be graded again using the system above.

Information about the cancer's stage will help the doctor recommend a treatment plan. The next section helps explain the treatment options for this type of cancer. Use the menu on the side of your screen to select Treatment Options, or you can select another section, to continue reading

this guide.

Links:

[1] <http://www.cancer.net/cancer-types/astrocytoma-childhood/stages-and-grades>

[2] <http://www.cancer.net/about-us>

[3] <http://www.cancer.net/node/18491>