

Brain Stem Glioma - 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 the growth or spread of brain stem glioma. 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 the tumor is located, if or where it has spread, and whether it is affecting other parts of the body. Doctors use diagnostic tests to find out the tumor's stage, so staging may not be complete until all of the tests are finished. Knowing the stage helps the doctor to decide what kind of treatment is best and can help predict a patient's prognosis, which is the chance of recovery. There are different stage descriptions for different types of tumors.

There is no formal staging system for childhood brain stem glioma. A tumor may be classified as either diffuse or focal. In addition, the tumor may be classified by its grade.

Grade. Grade describes how much tumor cells look like healthy cells when viewed under a microscope. The doctor compares the tumor's 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.

Below are the general classifications for brain stem glioma:

Diffuse brain stem glioma. This type of tumor spreads freely throughout the pons and often spreads to the midbrain, the medulla, or nearby parts of the brain. These tend to be high-grade tumors; they are very aggressive and contain abnormal-looking cells.

Focal brain stem glioma. About 20% of brain stem tumors are focal, meaning they occur in one area or are contained within a small portion of the brain stem. They usually occur in the midbrain or medulla, rather than the pons. These are usually benign or low-grade tumors; they are less aggressive and the tumor cells look fairly normal.

Recurrent brain stem glioma: Recurrent brain stem glioma is a tumor that has come back after treatment. If there is a recurrence, the tumor may need to be graded again using the system

above.

Information about the tumor's stage will help the doctor recommend a treatment plan. The next section helps explain the treatment options for this type of tumor. 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/brain-stem-glioma-childhood/stages-and-grades>

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