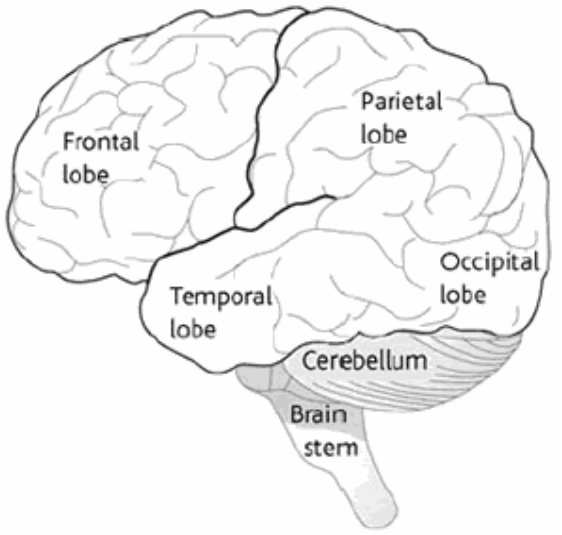
ASTROCYTOMAS

Within the brain and spinal cord there are nerve cells and also cells that support and protect these nerve cells. The supporting cells are called *glial cells.* A tumour of these cells is known as a *glioma.*

An astrocytoma is the most common type of glioma and develops from a type of star-shaped cell called an *astrocyte*. Astrocytomas can occur in most parts of the brain and occasionally in the spinal cord. However, they are most commonly found in the main part of the brain, the *cerebrum*, particularly *the frontal* and *temporal lobes.*

People of any age can develop an astrocytoma but it is more common in adults, particularly middle-aged men. Astrocytomas in the cerebellum are more common in children or young people. *Glioblastoma multiforme (see types of tumour)* is the most common type of brain tumour in adults.



TYPES/GRADES OF TUMOUR

Grading refers to the appearance of the cells under a microscope. The grade gives an idea of how quickly the cancer may develop. There are 4 grades.

Low grade means that the cancer cells look like very normal cells of the brain. They are usually slow growing and are not likely to spread. In high grade tumours the cells look very abnormal. They are likely to grow more quickly and are more likely to spread to other parts of the brain. Grade 4 tumours are also known as *glioblastoma multiforme*, and are the most malignant.

Different types/grades of Astrocytomas include:

- ***Low grade Astrocytomas***, grade 1 and 2.
  These occur in either the cerebrum of both adults and children, or in the cerebellum of children.

- ***Anaplastic Astrocytoma***, grade 3.
  A moderate grade tumour, which commonly spreads to surrounding brain tissue.

- ***Glioblastoma multiforme***, grade 4.
  This is the most malignant type of astrocytoma. It usually spreads quite quickly to other parts of the brain. For this reason it is a difficult tumour to treat. It is not uncommon for it to return after initial treatment.

SIGNS AND SYMPTOMS

Symptoms vary depending on where the tumour is:

- **CEREBELLUM -** Headaches, vomiting and unsteadiness in walking.
- **CEREBRIAL HEMISPHERES -** Seizure, weakness of arms and legs.
- **HYPOTHALAMUS -** Visual difficulties.
- **THALAMIC TUMOURS -** Headaches and weakness of arms or legs.

TESTS

In order for the doctors to plan the treatment they need to find out as much as possible about the type, position and size of the tumor. This is done by having a number of tests:

- **CT SCAN -** A series of x-rays, which are fed into a computer to build up a detailed picture of the brain.
- **MRI SCAN -** Similar to a ct scan but uses magnetism instead of x-rays
- **BIOPSY -** To give exact diagnosis, a sample of cells from the tumour is sometimes taken and is then analyzed.

TREATMENTS

Treatment depends on numerous things, including your health and size, grade and position. The results of the tests will enable the doctor to decide the best type of treatment for you:

- **SURGERY -** Where possible, surgery is the first type of treatment. The aim is to remove as much of the tumour as possible without damaging the surrounding brain tissue. Depending on the size and position it may not be possible to remove it completely and further treatment may be required.
- **RADIOTHERAPY -** Radiotherapy treatment (use of high-energy rays to destroy the cancer cells) is often used after surgery to destroy any remaining malignant cells. Radiotherapy is usually given as an external treatment but it may also be given as radioactive implants.
- **CHEMOTHERAY -** Chemotherapy is the use of anti-cancer (cytotoxic) drugs, which destroy cancer cells.

ADDITIONAL INFORMATION

In some circumstances you may not be allowed to drive for a period of time. If you had an epileptic fit before surgery the DVLA will not allow you to drive for two years after your last fit. You can then drive again provided you remain well.

After surgery to the main part of the brain, the cerebrum, there is a small risk of epileptic fits and the DVLA requires that you do not drive for a year after this type of surgery. The hospital does not contact the DVLA but it is your responsibility to do so and your doctor will advise this.