

About Brain Tumours - A Quick Guide



Contents

This is a brief summary of the information on 'About brain tumours' from CancerHelp UK. You will find more detailed information on the website.

In this information there are sections on

- The brain
- Brain tumour risks and causes
- Brain tumour symptoms
- Screening for brain tumours
- Types of primary brain tumours
- Should I see a brain tumour specialist?
- What to ask your doctor

The brain

The brain controls the body by sending electrical messages along nerve fibres. The fibres run out of the brain and join together to make the spinal cord. Together, the brain and spinal cord form the central nervous system. The brain is made of billions of nerve cells called neurones. It also contains supporting cells called glial cells. It is surrounded by 3 thin covering sheets called the meninges. The brain and spinal cord are bathed in a fluid called cerebrospinal fluid.

The largest part of the brain is called the forebrain. It is divided into left and right

sides called hemispheres. The hemispheres are divided into areas called lobes. Each lobe controls different parts and systems of the body.

There are two smaller parts of the brain called the hindbrain and the brain stem. The hindbrain, also called the cerebellum, controls balance and coordination. The brain stem controls automatic body functions – the ones that happen without us thinking about them. In the middle of the brain is the pituitary gland. This is small but very important. It makes hormones that control many different body functions.

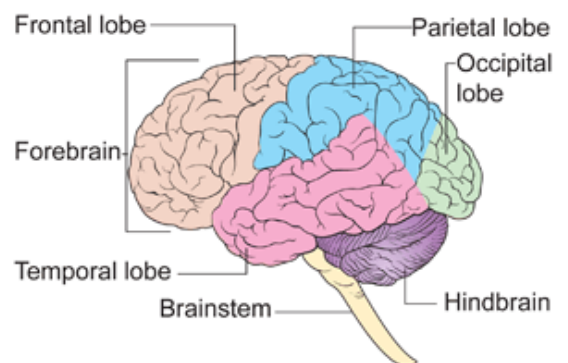


Diagram of the brain
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Brain tumours cause different symptoms depending on the part of the brain they are



growing in. In adults, most brain tumours are ones that have spread from an original cancer elsewhere in the body. These are called secondary tumours.

Brain tumour risks and causes

Brain tumours are relatively rare. In most cases, we do not know what causes a brain tumour. But there are a few risk factors we do know about.

Age

People can get brain tumours at any age. Like most cancers, they are more common the older you get. But some specific types are more common in younger people. Only about 300 children are diagnosed with brain tumours in the UK each year, but this still makes brain tumour the second most common type of cancer in children, after leukaemia.

Other risk factors

Up to 5 of every 100 brain tumours (5%) are related to genetic conditions. If you have a parent, brother or sister diagnosed with a tumour of the nervous system, your risk is about double that of other people. People with a weakened immune system are also at slightly increased risk.

In the environment, the only definite risk we know about is exposure to radiation. Some types of brain tumour are more common in people who have had radiotherapy to the head in the past. Researchers have investigated many other possible risk factors, but none of these have been proven.

Brain tumour symptoms

The most common symptoms of a brain tumour are headaches and fits. But do remember that there are much more common reasons for both these symptoms.

A fit can just be jerking or twitching of a hand, arm or leg. Or it may affect the whole body.

A growing tumour causes pressure inside the skull. You may hear this called raised intracranial pressure. This causes headache, sickness and drowsiness. It can also cause fits and problems with your eyes.

A brain tumour presses on the brain tissue around it. So it will affect the part of the body, or the body process, that is controlled by that part of the brain. This means that brain tumours can cause a very wide range of symptoms. Physical symptoms can include weakness or numbness in a particular part of the body, or problems with one of your senses. Brain tumours can also cause personality changes and problems with thinking, speaking, remembering or concentrating.

Screening for brain tumours

Screening means testing people for early stages of a disease before they show any signs of having it.

Before screening for any type of cancer can be carried out, doctors must have an accurate, simple, quick and cost effective test to use. The test must be reliable in picking up cancers that are there. And it must not give a positive result in people who do not have cancer. The only test that can find a brain tumour is a brain scan - usually with either a CT scanner or MRI scanner. These are very expensive tests and CT scans give a dose of radiation.

Brain tumours are quite rare. So if screening was used, large numbers of people who were well would have brain scans that they did not need. So at the



moment screening is not currently recommended or practical for brain tumours.

Primary and secondary brain tumours

Cancer in the brain can start in the brain, or it can spread from another cancer somewhere else in the body.

Cancers that start in the brain are called primary brain tumours. Cancers that have spread to the brain from somewhere else are called secondary brain tumours. Cancers of the lung, breast, kidney, stomach, bowel (colon), and melanoma skin cancer can all spread to the brain.

How does a cancer spread to the brain?

Cancer cells break away from the main tumour and travel through the bloodstream to lodge in the brain and begin to grow into new tumours.

If you are looking for information, it is important to understand which of these types of brain cancer you have. The treatment and outlook may be very different for each.

Types of primary brain tumours

There are nearly 100 different types of brain tumour. They are generally named after the type of cell they developed from. Most develop from the cells that support the nerve cells of the brain. These are called glial cells. A tumour of the glial cells is called a glioma. Brain tumours can also be named after the area of the brain they are growing in. CancerHelp UK has more information about some of the most common types.

Grade – benign or malignant?

Brain tumours are put into groups according to how fast they are likely to grow. The cells are examined under a microscope. The more abnormal they look, the more quickly the tumour is likely to grow and the higher the grade. As a rule of thumb, low grade tumours are regarded as benign and high grade as malignant.

By benign we generally mean that the tumour is relatively slow growing. It is less likely to come back after it is completely removed, and is less likely to spread. It may not need treating with chemotherapy or radiotherapy after surgery.

By malignant we generally mean that the tumour is relatively fast growing. It is likely to come back after surgery, even if completely removed. It may spread to other parts of the brain or spinal cord. It will need radiotherapy or chemotherapy to try and stop it coming back.

Should I see a brain tumour specialist?

It can be very difficult for GPs to decide who may have a suspected cancer and who has something more minor. Many people worry that a constant headache might mean they have a brain tumour. In fact, less than 1 in every 100 people suffering from headaches has a brain tumour. So it would not be right for doctors to refer everyone with a headache urgently to a specialist.

Guidelines for urgent referral

The National Institute for Health and Clinical Excellence (NICE) have produced guidelines to help GPs decide who to refer to a specialist. The symptoms they say need urgent referral within 2 weeks are



- Headaches that occur in the early morning or have started recently and are accompanied by other symptoms, such as vomiting, drowsiness, blackouts or changes in personality or memory
- New nervous system symptoms that are getting worse
- A recent fit or fits - either affecting the whole body, or just one part
- Changes in behaviour, mental abilities or personality that are worsening quite quickly

If you are still worried

If you are concerned that your GP is not taking your symptoms as seriously as they should, you could take this information and ask your GP to talk it through with you.

What to ask your doctor about brain tumours

- How will I know if I have a brain tumour?
- Will my diet, drinking or smoking habits increase my risk of a brain tumour?
- Can I be screened for a brain tumour?
- Do brain tumours run in families?
- Will using my mobile phone increase my risk of brain tumour?
- Does where I live increase my risk of brain tumour?
- I have had breast cancer - does this increase my risk of a brain tumour?

More information

For more information about brain tumours, visit our website <http://cancerhelp.cancerresearchuk.org>

You will find a wide range of detailed, up to date information for people affected by cancer, including a clinical trials database that you can search for trials in the UK. You can view or print the information in a larger size if you need to.

For answers to your questions about cancer call our Cancer Information Nurses on **0808 800 4040**
9am till 5pm Monday to Friday

Adapted from Cancer Research UK's Patient Information Website CancerHelp UK in March 2012. CancerHelp UK is not designed to provide medical advice or professional services and is intended to be for educational use only. The information provided through CancerHelp UK and our nurse team is not a substitute for professional care and should not be used for diagnosing or treating a health problem or disease. If you have, or suspect you may have, a health problem you should consult your doctor. © Cancer Research UK 2012. Cancer Research UK is a registered charity in England and Wales (1089464) and in Scotland (SC041666)