

Patient agreement to investigation or treatment

Biopsy of brain tumour in adults

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Brief description:

Your recent tests have shown that you have a brain tumour. Your neurosurgeon has recommended a procedure called a biopsy. This is a surgical procedure that aims to take out a small amount of the tumour so that a diagnosis can be made.

Here, we explain some of the aims, benefits, risks and alternatives to this procedure (operation). We want you to be informed about your choices to help you to be fully involved in making any decisions.

Please ask about anything you do not fully understand or wish to have explained in more detail.

If you would like this information in another format or language or would like help completing the form, please ask a member of our staff.

Please bring this form with you to hospital

- You will be asked to read this form carefully. You and your doctor will sign it to document your consent.
- All our consent forms are available on the Addenbrooke’s website: <http://www.addenbrookes.org.uk/consent>
- Guidance for health professionals can be found on the Addenbrooke’s intranet site <http://nww.addenbrookes.nhs.uk/consent>
- Remember, you can change your mind about having the procedure at any time even after you have signed the form.

For staff use:

Does the patient have any special requirements? (For example: requires an interpreter or other additional communication method)

.....
.....

About a biopsy procedure

Sometimes it is not possible to remove a tumour. For example, if the tumour is in a vital structure in your brain, then removing it, even partially, may cause severe disability or even death.

Getting medical treatment for a brain tumour usually requires a diagnosis and this is best achieved by looking at the cells under a microscope. If it is necessary to get a sample of the tumour, and tumour removal is not possible, the neurosurgeon will recommend a surgical procedure called a biopsy.

During a biopsy procedure the surgeon makes an incision in the scalp, exposing the skull bone. A biopsy is taken in one of two ways:

- Open biopsy
- Closed biopsy

An **open biopsy** involves taking out a small piece of bone from the skull using a computer 'stealth' navigation system. The surgeon then removes a small amount of the tumour. Following this, the bone is replaced, secured in position and the skin closed with stitches or clips (staples) and a dressing.

During a **closed biopsy**, a small round hole, called a burr hole, is made in the skull using a drill. This exposes the brain. With the help of a computer navigation system (referred to as a stealth scan) they then pass a needle through the hole and into the tumour. After taking a very small piece of the tumour, the needle is removed and the skin closed with stitches or clips (staples) and a dressing. The hole in the skull heals with scar tissue.

Before your procedure

- Most patients attend a pre-admission clinic. Here you will meet a Neurosurgeon and will be given the details of your key worker. Your key worker is the person to contact if you have any questions or need advice or support.
- At this clinic, we shall ask you for details of your medical history and carry out any necessary clinical examinations and investigations. The investigations will include blood tests and skin swabs. This clinic gives you a good opportunity for you to ask us any questions about the procedure, but please feel free to discuss any concerns you might have at any time.
- You will be asked if you are taking any tablets or other types of medication - these might be ones prescribed by a doctor or bought over the counter. It helps us if you bring details of anything you are taking (for example: bring the packaging with you). We are especially interested in medicines that affect blood clotting, for example aspirin or warfarin.
- This procedure may be done under local or general anaesthetic. We will discuss this with you. See below for further details about general anaesthetic.
- Some people who have this type of procedure will have it performed as a day case but others will require an overnight stay.

- On the day of surgery or occasionally the day before you will be admitted to one of our neurosciences wards and you will be asked to telephone the admissions office on 01223 217100 to check that there is a bed available and where to go.
- **Please do not eat or drink from midnight of the day of the operation.**

During the procedure itself

You will be taken to the neurosurgery operating theatres on your hospital bed. The surgeon shaves a small amount of hair and then makes an incision in your scalp. The size and shape of the opening will depend on the type of biopsy (open or closed) and the position of the tumour. The incision will be made behind the hairline where possible so the scar is hidden when your hair grows back.

The time this takes depends upon the complexity of the procedure but you will be away from the ward for at least three hours.

After the procedure

- If you have had a general anaesthetic you will wake up in the recovery room after your operation. You will have an oxygen mask on your face.
- You will have a small, plastic tube in one of the veins of your arm. This will be attached to a bag of fluid (called a drip), which provides your body with fluid until you are well enough to drink by yourself.
- While you are in the recovery room, a nurse will check your pulse and blood pressure regularly. Once you are fully conscious, you will be taken to a ward.
- Sometimes, people feel sick after an operation, especially after a general anaesthetic, and might vomit. If you feel sick, please tell a nurse and you will be offered medicine to make you more comfortable.
- You may eat and drink as soon as you feel able. It is recommended you start with clear fluids and move to light food after a few hours.
- After this procedure you are able to get up as soon as you feel well enough. Often, this is within a few hours of returning to the ward.
- Your wound may feel strange for a few weeks but pain is rarely a problem. The scar and skin may look bruised and swollen. The scar will fade to a thin pale line in three to six months. Any shaved hair will normally re-grow.
- **When you can leave hospital:** Some people who have this procedure can go home the same day, some the following day. If you go home the same day you will need a CT scan a few hours after the operation. The actual time that you stay in hospital will depend on your general health, how quickly you recover from the procedure and your doctor's opinion.
- The stitches or clips are removed five days after surgery. Most stitches are self absorbable so they will take care of themselves. If you have skin staples however, you will be asked to make an appointment with your GP surgery so your practice nurse can remove them.

- **When you can resume normal activities including work:** You may return to light domestic work and exercise as soon as you feel able to do so. If you intend to return to work, it is best to discuss this with your neurosurgeon and or key worker. How quickly you are able to return to work will depend upon the physical skills and demands of the job. You are advised to avoid contact sports such as boxing or rugby for at least three months.
- **Driving:** This depends on the type of tumour you have been diagnosed with. In most cases, a driving ban of minimum 2 years following completion of your treatment (this includes any chemotherapy or radiotherapy you may require) is required. Please see our separate leaflet entitled 'DVLA driving regulations: Brain tumours' for further information and speak to your doctor or key worker. Failure to notify the DVLA is an offence and may result in a fine of up to £1,000.
- **Special measures you need to take after the procedure:** You are advised to avoid flying for one month. You can gently wash your hair as soon as the stitches or clips have been removed. It is recommended you use a gentle shampoo for this. Its best to avoid hair dyes and perms for one month as this will irritate the scar.
- You may be taking steroids (dexamethasone). It is usual to increase the dose of this around the time of surgery and then wean the dose down again within a few days of surgery.
- **Check-ups and results:** A sample of the tumour will be sent for analysis. There is a wait of about one week for the results. As soon as the tests are complete, you will be seen in clinic. At this clinic we will check on your progress, explain the test results and discuss any further treatment that is recommended. Please bring family and/or friends as appropriate.

Intended benefits of the procedure

The aim of a biopsy procedure is to find out what kind of cells are causing the tumour to grow. This is called a **histopathology diagnosis**.

Getting an accurate diagnosis has the following benefits:

- We can give you more specific information, if you want it
- It enables us to consider other treatments, such as radiotherapy and/or chemotherapy

Who will perform my procedure?

This procedure will only be performed by a consultant neurosurgeon or neurosurgery specialist registrar operating under the supervision of a consultant.

Alternative procedures that are available

There are two other options to consider. The risks and benefits of each procedure will be discussed with you during your consultation:

- Craniotomy and debulking of tumour. This is slightly higher risk but probably offers more benefit. By virtue of their location some tumours cannot be debulked safely. With some tumours there is also the option of giving chemotherapy directly into the tumour bed with this procedure.

- You may decide to have no surgery at all. This may also prevent you from having other types of treatment such as radiotherapy or chemotherapy, which often depend upon having a tissue diagnosis. The full implications of deciding not to have surgery will be discussed with you.

Serious or frequently occurring risks

There are risks of surgery in general and risks associated specifically with the biopsy. The risks of surgery in general include problems with the wound (for example infection), problems with breathing (such as a chest infection) and blood clots for example in the legs or less frequently the lungs. Below are listed some of the most common risks:

- Infection within the brain: 1 in 100 people (1%).
- Bleeding (haemorrhage) into the brain: 2 in 100 people (2%).
- Superficial infection in the surgical wound: 2 in 100 people (2%).
- Permanent 'neurological deficit' such as speech, visual, arm or leg weakness if the tumour is away from a critical area of the brain: 1 in 100 people (1%).
- Permanent 'neurological deficit' such as speech, visual, arm or leg weakness if the tumour is in or close to a critical area of the brain: 3 in 100 people (3%).
- Non diagnostic biopsy either because the tumour is very small and is missed or more commonly because the piece of tumour removed is not representative of the whole tumour: 5 in 100 people (5%).
- Death: 1 in 100 people (1%).

The risk of your surgery depends very much upon which part of your brain the tumour is in. Your surgeon will discuss your particular risks with you.

If you do wake up with a new neurological deficit then remember that most patients with a new neurological deficit following this procedure will improve over a few days. Some will resolve completely.

Your anaesthesia

Local anaesthetic

You may be having this procedure under local anaesthetic. This means you will be awake during part of the procedure. The skin is numbed by injecting local anaesthetic directly at the site of the operation. The anaesthetist is still present to monitor you during the procedure and will talk to you throughout the procedure. Please feel free to bring your choice of music if you wish.

General anaesthesia

During general anaesthesia you are put into a state of unconsciousness and you will be unaware of anything during the time of your operation. Your anaesthetist achieves this by giving you a combination of drugs.

Before your operation

Before your operation your anaesthetist will visit you in the ward. The anaesthetist who looks after you on the day of your operation is the one who is responsible for making the final decisions about your anaesthetic. He or she will need to understand about your general health, any medication that you are taking and any past health problems that you have had. Your anaesthetist will want to know whether or not you are a smoker, whether you have had any abnormal reactions to any of the drugs or if you have any allergies. They will also want to know about your teeth, whether you wear dentures, have caps or a plate. If you are a female within a set age group, they will need to ask if you could be pregnant. Your anaesthetist needs to know all these things so that he or she can assess how to look after you in this vital period. Your anaesthetist may examine your heart and lungs.

Before your operation you will usually be changed into a gown, wheeled to the operating suite and into an anaesthetic room. This is an ante-room outside the theatre. The anaesthetist, his or her assistant and nurses are likely to be present. An intravenous line (drip) may be inserted. Monitoring devices may be attached to you, such as a blood pressure cuff or a pulse oximeter. A pulse oximeter is a little red light in a small box which is taped to your finger. It shows how much oxygen you have in your blood and is one of the vital monitors that an anaesthetist uses during your operation to ensure that you remain in the best of health. You may be given some oxygen to breathe.

During your operation

While you are unconscious and unaware your anaesthetist remains with you at all times. They monitor your condition and administer the right amount of anaesthetic drugs to maintain you in the correct level of unconsciousness for the period of the surgery. Your anaesthetist is constantly aware of your condition and trained to respond. Your anaesthetist will be monitoring such factors as heart rate, blood pressure, heart rhythm, body temperature and breathing. They will also constantly watch your need for fluid or blood replacement. If you have any other medical conditions, your anaesthetist will know of these from your pre-operative assessment and be able to treat them during surgery.

After your operation

After your operation your anaesthetist continues to monitor your condition carefully. You will be transferred to a recovery ward where specially trained nurses, under the direction of anaesthetists, will look after you. Your anaesthetist and the recovery nurses will ensure that all the anaesthetic effects are reversed and that you are closely monitored as you return to full consciousness. You will be given some oxygen to breathe in the recovery area, and may find that intravenous drips have been inserted whilst you are unconscious in theatre and that these will be replacing fluids that you might require. You will be given medication for any pain that you might feel.

You are likely to feel drowsy and sleepy at this stage. Some patients feel sick, others may have a sore throat related to the insertion of the breathing tube during surgery. During this time it is important that you relax as much as you can, breathe deeply, do not be afraid to cough, and do not hesitate to ask the nursing staff for any pain relief, and about any queries you may have. You are likely to have hazy memories of this time and some patients experience vivid dreams. Once you are fully awake you will be returned to the ward. Do not expect to feel completely normal immediately!

What are the risks of general anaesthesia?

In modern anaesthesia, serious problems are uncommon. Risks cannot be removed completely, but modern equipment, training and drugs have made it a much safer procedure in recent years. The risk to you as an individual will depend on; whether you have any other illness, personal factors (such as smoking or being overweight) or surgery which is complicated, long or done in an emergency. Please discuss any pre-existing medical condition with your anaesthetist.

- Very common and common side effects (1 in 10; or 1 in 100 people)
Feeling sick and vomiting after surgery, sore throat, dizziness, blurred vision, headache, itching, aches, pains and backache, pain during injection of drugs, bruising and soreness, confusion or memory loss.
- Uncommon side effects and complications (1 in 1000 people)
Chest infection, bladder problems, muscle pains, slow breathing (depressed respiration), damage to teeth, lips or tongue, an existing medical condition getting worse, awareness (becoming conscious during your operation).
- Rare or very rare complications (1 in 10,000 or 1 in 100,000)
Damage to the eyes, serious allergy to drugs, nerve damage, death, equipment failure.

Local anaesthesia – nerve blocks

Sometimes, while you are asleep a local anaesthetic drug is injected into the skin and tissues (including the nerves) around the site of the operation. This helps with pain relief once you are awake.

Information and support

- Please feel free to ask your key worker or any other member of staff for advice at any time, even after discharge.
- Brain Tumour UK – for regular meetings, phone pals, information and advice.
Telephone: 0845 450 0386 Website: www.braintumour.org.uk
- CancerBackup – for information and advice on all types of brain tumour.
Freephone: 0808 800 1234 Website: www.cancerbackup.org.uk They have now merged with Macmillan Cancer Support – for online information, advice and support: www.macmillan.org.uk



We are currently working towards a smoke free site. Smoking is only permitted in the designated smoking areas.

For advice and support in quitting, contact your GP or the free NHS stop smoking helpline on 0800 169 0 169

Help with this leaflet:



If you would like this information in another language, large print or audio format, please ask the department to contact

Patient Information: 01223 216032 or

patient.information@addenbrookes.nhs.uk



Document history

Authors	Department of Neurosciences
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Consent form 1

Patient agreement to investigation or treatment

For staff use only:
Surname:
First names:
Date of birth:
Hospital no:
Male/Female:
(Use hospital identification label)

Responsible health professional/job title

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Special requirements
 (For example, other language/other communication method)

Name of proposed procedure or course of treatment

Biopsy of brain tumour in adults Side (left/right).....

Statement of health professional

(To be filled in by a health professional with an **appropriate knowledge of the proposed procedure**, as specified in the Hospital's consent policy)

I have explained the procedure to the patient. In particular, I have explained:

- The intended benefits of the procedure: to find out what kind of cells are causing the tumour.
 Other (specify)
- Any serious or frequently occurring risks from the procedures including those specific to the patient: Problems with the wound (for example infection); problems with breathing (such as a chest infection); blood clots for example in the legs or less frequently the lungs; infection within the brain; bleeding (haemorrhage) into the brain; superficial infection in the surgical wound; permanent 'neurological deficit' such as speech, visual, arm or leg weakness if the tumour is away from a critical area of the brain; permanent 'neurological deficit' such as speech, visual, arm or leg weakness if the tumour is in or close to a critical area of the brain; non diagnostic biopsy; death.
- Any extra procedures that might become necessary during the procedure

Blood transfusion Other procedure (specify)

I have discussed what the treatment / procedure is likely to involve, the benefits and risks of any available alternative treatments (including no treatment) and any particular concerns of this patient.

The following information leaflet has been provided: Biopsy of brain tumour in adults
 Version/Date/Ref: 3/July 2010/CF384

This procedure will involve:

- General and/or regional anaesthesia Local anaesthesia Sedation

Health professional's signature: Date:

Name (PRINT): Job title:

Contact details (if patient wishes to discuss details later).....

I have offered the patient information about the procedure but s/he has declined information.

Statement of the interpreter (if appropriate)

I have interpreted the information to the best of my ability, and in a way in which I believe s/he can understand:

Interpreter's signature..... Date:

Name (PRINT):

Important notes: (tick if applicable)

- The patient has withdrawn consent (ask patient to sign/date here)
- See also advance directive/living will

Copy accepted by patient: yes / no (please circle)

<p>For staff use only: Surname: First names: Date of birth: Hospital no: Male/Female: (Use hospital identification label)</p>
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Statement of patient

Please read this form carefully. If your treatment has been planned in advance, you should already have your own copy, which describes the benefits and risks of the proposed treatment. If not, you will be offered a copy now. Do ask if you have any further questions. The staff at Addenbrooke's are here to help you. **You have the right to change your mind at any time before the procedure is undertaken, including after you have signed this form.**

Training doctors and other health professionals is essential to the continuation of the Health Service and improving the quality of care. Your treatment may provide an important opportunity for such training, where necessary under the careful supervision of a senior doctor. You may, however, decline to be involved in the formal training of medical and other students without this adversely affecting your care and treatment.

Please read the following:

I understand that I will have the opportunity to discuss the details of anaesthesia with an anaesthetist before the procedure, unless the urgency of my situation prevents this. (This only applies to patients having general or regional anaesthesia.)

I understand that you cannot give me a guarantee that a particular person will perform the procedure. The person undertaking the procedure will, however, have appropriate experience.

I understand that any procedure in addition to those described on this form will only be carried out if it is necessary to save my life or to prevent serious harm to my health.

I have been told about additional procedures which may become necessary during my treatment. I have listed below any procedures that **I do not wish, without further discussion, to be carried out.**

I understand that any tissue (including blood) removed as part of the procedure or treatment will be anonymised and may be used for teaching or quality control, and stored or disposed of in a manner regulated by appropriate, ethical, legal and professional standards.

I understand that all research will be approved by a research ethics committee and undertaken in accordance with appropriate ethical, legal and professional standards.

I understand that the research may be conducted within a hospital, university, not for profit organisation or a company laboratory.

Please tick boxes to indicate you either agree/disagree to the three points below. Yes No

I agree that tissue (including up to 20ml blood that would not otherwise be taken) not needed for my own diagnosis or treatment can be used for **research which may include genetic research. If you wish** to withdraw your consent for the use of your tissue

(including blood) for research, please contact the Patient Advice and Liaison Service at Addenbrooke's Hospital.

I agree to the use of photography for the purpose of diagnosis and treatment.

I agree to anonymised photographs being used for medical teaching.

I confirm that the risks, benefits and alternatives of this procedure have been discussed with me and I have read and understood the above and agree to the procedure (or course of treatment) on this form.

Patient's signature: Date:

Name (PRINT):

If the patient is unable to sign but has indicated his/her consent, a witness should sign below. Young people may also like a parent to sign here (see guidance notes).

Witness' signature: Date:

Name (PRINT):

Confirmation of consent (to be completed by a health professional when the patient is admitted for the procedure, if the patient has signed the form in advance)

On behalf of the team treating the patient, I have confirmed with the patient that s/he has no further questions and wishes the procedure to go ahead.

Signature Date:

Name (PRINT): Job Title: