

Patient agreement to investigation or treatment

Insertion of ventriculo-peritoneal and ventriculo-atrial shunt

Authors: Michelle Best (Clinical Nurse Practitioner), Professor J.D. Pickard (Consultant Neurosurgeon)

Brief description:

- You have been recommended to have an operation to drain excess brain fluid.
- This involves inserting this plastic-like tube (silastic) into the fluid space in the brain (ventricle) that is connected via a valve, which sits under the scalp and drains into the tummy (peritoneum). This is known as a ventriculo-peritoneal (VP shunt). Alternatively, the fluid may be drained into the chamber in the heart (atrium). This is called a VA shunt.
- Here, we explain some of the aims, benefits, risks and alternatives to this procedure (operation/treatment). 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, and you and your doctor (or other appropriate healthcare professional) 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)

.....

.....

Name of procedure: insertion of ventriculo-peritoneal and ventriculo-atrial shunt

As part of your ongoing treatment at Addenbrooke's Hospital, this operation is performed to allow the excess brain fluid (cerebro-spinal fluid (CSF)) to be drained away.

You have been recommended to have an operation to insert a plastic-like (silastic/bendy) tube into the fluid space in the brain (ventricle) and a valve which sits under the scalp. These are connected to a tube, which drains into the tummy (peritoneum) or atrium (heart), where the brain fluid can be easily absorbed. This is called a ventriculo-peritoneal (VP) shunt and ventriculo-atrial (VA) shunt.

Your neurosurgeon may use a special type of valve, called a programmable valve. There are two types; Codman Hakim (known as Medos) and Strata. These types of valves can be programmed using a strong external magnet. The pressure setting (how much fluid drains out through the tube in the brain and down to the tummy/atrium) can be adjusted to suit the patient and avoid certain complications, such as subdural haematomas (bleeding on the brain) or slit ventricles (very small fluid spaces). Using this system, the patient's recovery and quality of life can be optimised.

The decision to offer you this operation will be based on the results from a variety of investigations, including CT scan, MRI scan, venogram, ICP results and infusion studies, neuropsychology (memory tests) and eye tests.

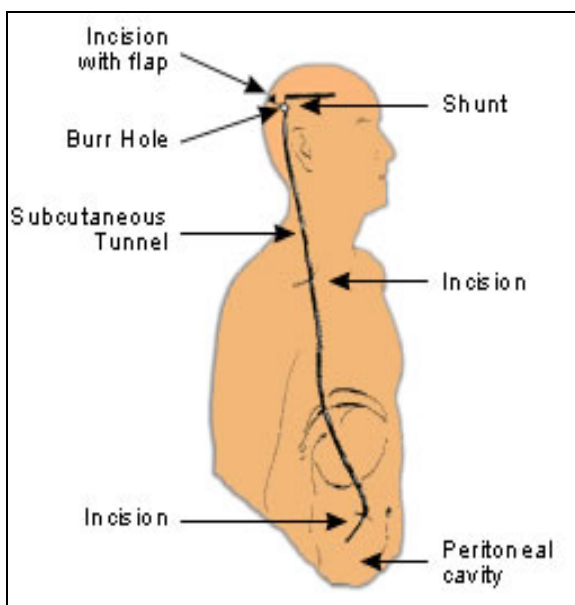


Figure one: diagram of a VP shunt

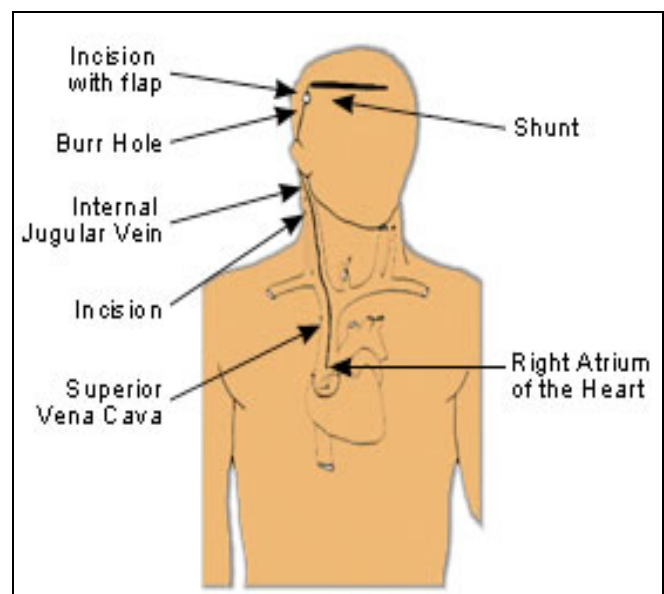


Figure two: diagram of VA shunt

Before your procedure

- You will be seen in the CSF clinic by a consultant neurosurgeon, specialist registrar (junior doctor), neuropsychologist and the nurse practitioner.
- At the clinic you will be examined and asked about your past medical history current symptoms, and any investigations organised. This a good opportunity for you to ask us any questions about the procedure, but feel free to discuss any concerns you might have at any time.
- You will be asked about any tablets or medication you are taking, either provided by your GP or bought over the counter.
- We need to know if you are taking any of the following tablets as they thin the blood which may cause excessive bleeding at the time of surgery:
 - Asprin
 - Warfarin
 - Clopidogrel
 - Or any other medication which may thin your blood.
- If to your knowledge the answer to any of the following is **YES**, it is important that you tell us:
 - Have you ever received Human Growth Hormone;
 - Have you had brain surgery prior to 1992 or;
 - Has anyone in your family been diagnosed with CJD?
- A positive answer will not prevent any treatment, it will however allow us to take the Infection Control advice and plan your procedure so as to minimise any risks to the patient.
- This procedure involves the use of general anaesthetic. See below for further details about the types of anaesthesia/sedation used. The anaesthetist will see you before the procedure to assess your general state of health and discuss the details of the anaesthetic with you.
- Most people who have this type of procedure will be admitted to hospital the day before in preparation for the operation the next day.

During the procedure

- This involves a medium surgical procedure under general anaesthetic. The procedure involves making a hole in the skull at the front of the head, usually on the right side and passing the small plastic tube (catheter) into the fluid space (ventricle) within the brain. The valve sits underneath the skin and is only visible if the patient is balding. If you have had an Ommaya reservoir inserted, then the valve will be placed next to the reservoir and a tube attached which goes into the tummy or heart.

After the procedure

- You will wake up in the recovery room after your operation. You might have an oxygen mask on your face to help you breathe. You might also wake up feeling sleepy. Both of these are normal.
- After the procedure most people will have a small plastic tube in one of the veins in their arm. This might be attached to a bag of fluid (called a drip), which supplies your body with fluid until you are well enough to eat and drink yourself.
- While you are in the recovery room a nurse will check your pulse, blood pressure, ask you questions and to move your arms and legs around. When you are well enough you will be moved to the ward.

-
- Sometimes people feel sick or are sick after an operation during which a general anaesthetic has been given. Please tell a nurse and you can be given medication to make you feel more comfortable.

Eating and drinking

- You may eat and drink when you feel able and if you do not feel sick. It is best to wait for four to six hours before doing so.

Getting up and about

- You will be encouraged to get out of bed as soon as possible after your operation. This is to help prevent complications from lying in bed. The physiotherapist may see you prior to going home.

When can you leave the hospital?

- You will be in hospital for about five to seven days.

When can you resume normal activities including work?

- Once you are at home you should increase your activities gradually. You should have minimal discomfort from the wound.
- You should contact the DVLA to find out when you can drive again. The DVLA will send the neurosurgeon a questionnaire; he will complete the form and send it back to them. A medical officer at The DVLA will consider your fitness to drive and when and will contact you. The process may take three months.

Check up and results

- You will be seen in the CSF clinic at Addenbrooke's Hospital three months after surgery.

Intended benefits of the procedure

- The aim of the surgery is to allow excess brain fluid to drain away relieving your symptoms.

Who will perform the procedure?

- This procedure will be performed or supervised by a consultant neurosurgeon.

Alternate procedures which are available

- Various surgical treatments are available to treat disorders of CSF circulation. Your consultant and his team will explain whether these are appropriate for you and explain the relative advantages and disadvantages.

Serious or frequently occurring risks

- The procedure carries some small risks of approximately one to three percent (1 to 3 in 100) including fits, stroke, haemorrhage, infection, blockage, overdrainage, underdrainage, and less likely of death.
- If infection occurs the shunt will need to be removed under general anaesthetic, and antibiotics administered.

General anaesthesia

During general anaesthesia you are put in 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. Usually the first step is to inject medication intravenously (i.e. into a vein) through a small plastic tube, placed usually in your arm or hand. This is known as induction of anaesthesia. An example of a commonly used drug is propofol. Induction is occasionally achieved by breathing gases. To maintain you in this state of unconsciousness, you will breathe a mixture of anaesthetic gases or vapours with oxygen. If the surgery or other factors require your muscles to be relaxed e.g. in surgery of the abdomen, then a muscle relaxant will be given and a tube is inserted into your throat and down your windpipe to help you breathe.

While you are unconscious and unaware your anaesthetist remains with you at all times, monitoring your condition and controlling your anaesthetic, replacing fluid or blood. At the end of the operation, your anaesthetist will reverse the anaesthetic and you will regain awareness and consciousness in the recovery room, or as you leave the operating theatre.

Before your operation

Before your operation your anaesthetist will visit you in the ward, although occasionally this will happen in a pre-anaesthetic clinic. The anaesthetist who looks after you on the day of the operation is responsible for making the final decision 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 if you are a smoker or not, whether you have any abnormal reactions to any of the drugs or if you have had any allergies. They will also want to know about your teeth, whether you wear dentures, have any caps or crowns or a plate. 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 and may also prescribe medication that you will be given shortly before your operation, the pre-medication or pre-med.

Pre-medication is the name given to medication (drugs) given to you some hours before your operation. These drugs may be given as tablets, injections or liquids (to children). They relax you and may send you to sleep. They are not always given. Do not worry if you do not have a premed, your anaesthetist has to take many factors into account in making this decision and will take account of your views on the topic if possible. Do not be worried about your anaesthetic. When your anaesthetist visits you before your operation, this is the time to ask all the questions that you may have, so that you can forget your fears and worries.

Before your operation you will be changed into a gown and wheeled to the operating suite into the 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 small red light in a box attached using tape to your finger. It shows how much oxygen is in your blood and is one of the vital monitors the anaesthetist uses during your operation to ensure you are in the best of health. You may be given some oxygen to breathe. It is common practice nowadays to allow a parent into the anaesthetic room with children: as the child becomes unconscious, the parent will usually be asked to leave.

During your operation

While you are unconscious and unaware your anaesthetist will remain with you at all times. He or she monitors your condition and administers the right amount of anaesthetic drugs to maintain you in the correct level of unconsciousness for the period of your surgery. Your anaesthetist is constantly aware of your condition and is trained to respond. Your anaesthetist will be monitoring your heart rhythm, body temperature and breathing. He or she 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 will be able to treat them during surgery.

After your operation

After your operation your anaesthetist continues to monitor your condition carefully. You will probably be transferred to the recovery ward, where specially trained nurses, under the direct supervision of the anaesthetist, will look after you. Your anaesthetist and recovery nurses will ensure that all the anaesthetic effects are reversed and that you are closely monitored as you return to full consciousness. You may be given 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 and systems, such as Patient Controlled Analgesia (PCA) may be set up to control pain on the ward.

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 to relax as much as you can, breathe deeply, do not be afraid to cough and do not hesitate to ask the nursing staff for pain relief and about any queries you may have. You are likely to have hazy memories of this time and some patients have vivid dreams. Once you are fully awake you will be returned to the ward, and if you are a day patient will be allowed to go to the waiting area to fully recover before you are accompanied home. Do not expect to feel completely normal immediately!

What are the risks of general anaesthesia?

In modern anaesthesia, serious problems are uncommon. Risk cannot be removed completely, but modern equipment, training and drugs have made it much safer 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 and pains and backache, pain during injection of drugs, bruising and soreness, confusion and memory loss.
- Uncommon side effects (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 are complications (1 in 10,000 or 1 in 100,000)
Damage to eyes, serious allergy to drugs, nerve damage, death, equipment failure.



Addenbrooke's is smoke-free. You cannot smoke on site. For advice on quitting, contact your GP or the NHS smoking helpline free, 0800 169 0 169

Please ask if you require this information in other languages, large print or audio format: 01223 216032 or patient.information@addenbrookes.nhs.uk

Informacje te można otrzymać w innych językach, w wersji dużym drukiem lub audio. Zamówienia prosimy składać pod numerem: 01223 216032 lub wysyłając e-mail: patient.information@addenbrookes.nhs.uk

Polish

Se precisar desta informação num outro idioma, em impressão de letras grandes ou formato áudio por favor telefone para o 01223 216032 ou envie uma mensagem para: patient.information@addenbrookes.nhs.uk

Portuguese

Если вам требуется эта информация на другом языке, крупным шрифтом или в аудиоформате, пожалуйста, обращайтесь по телефону 01223 216032 или на вебсайт patient.information@addenbrookes.nhs.uk

Russian

若你需要此信息的其他語言版本、大字體版或音頻格式，請致電 01223 216032 或發郵件到: patient.information@addenbrookes.nhs.uk

Cantonese

Bu bilgiyi diger dillerde veya büyük baskılı ya da sesli formatta isterseniz lütfen su numaradan kontak kurun: 01223 216032 veya asagıdaki adrese e-posta gönderin: patient.information@addenbrookes.nhs.uk

Turkish

এই তথ্য বাংলায়, বড় অক্ষরে বা অডিও টেপে পেতে চাইলে দয়া করে 01223 216032 নম্বরে ফোন করুন বা patient.information@addenbrookes.nhs.uk ঠিকানায় ই-মেইল করুন।

Bengali

Document history

Authors	Michelle Best (Clinical Nurse Practitioner), Professor J.D. Pickard (Consultant Neurosurgeon)
Department	Addenbrooke's Hospital, Cambridge University Hospitals NHS Foundation Trust, Hills Road, Cambridge, CB2 0QQ www.addenbrookes.org.uk
Contact number	01223 245151
Published	January 2009
Review date	January 2011
File name	Insertion_of_VPandVA_shunt.doc
Version number	1
Ref	CF393

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

.....

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

Name of proposed procedure or course of treatment

Insertion of ventriculo-peritoneal and ventriculo-atrial shunt

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 allow excess brain fluid to drain away relieving your symptoms.
- Any serious or frequently occurring risks from the procedures including those specific to the patient: The procedure carries some small risks of approximately one to three percent (1 to 3 %) including fits, stroke, haemorrhage, infection, blockage, overdrainage, underdrainage, and less likely of death. If infection occurs the shunt will need to be removed under general anaesthetic, and antibiotics administered. Other (Please specify)
- Any extra procedures that might become necessary during the procedure

Blood transfusion Other procedure (please 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: Insertion of ventriculo-peritoneal and ventriculo-atrial shunt, Version/Date/Ref: CF393 Version 1, January 2009

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:</p> <p>Surname:</p> <p>First names:</p> <p>Date of birth:</p> <p>Hospital no:</p> <p>Male/Female:</p> <p>(Use hospital identification label)</p>
--

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 blood) 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:**