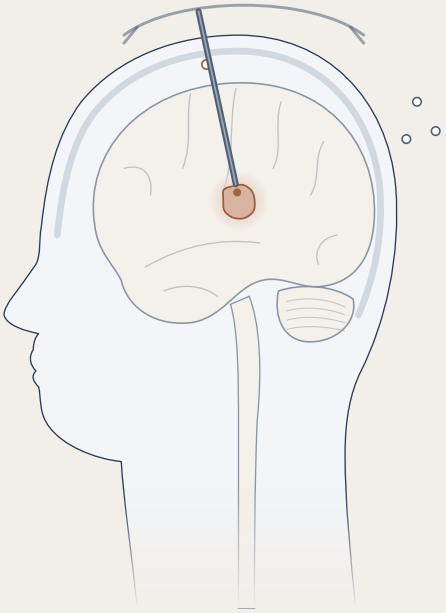
Professor Jason John Labuschagne
PAEDIATRIC AND ADULT NEUROSURGEON

ADULT NEUROSURGERY

Stereotactic Brain Biopsy

Patient information and consent



This booklet explains how a small sample of tissue is taken from a deep area of the brain to make a diagnosis. Please read it with your family, write down your questions and bring it to your consultation. You will be asked to sign the consent section only once you understand the proposed treatment and are satisfied that your questions have been answered.

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PATIENT DETAILS OR HOSPITAL LABEL

Patient name

Date of birth

ID / file no.

Procedure date

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Netcare Unitas Hospital
Room 403, Centurion

Nelson Mandela Children's Hospital
Private Suites, First Floor, 6 Jubilee Road, Parktown North

012 664 6026
HPCSA MP 0530077

01 General information

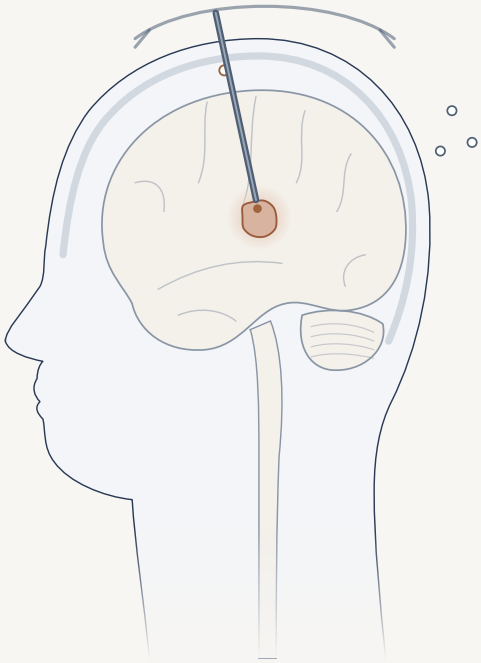
Why is a biopsy needed?

Scans can show that there is an abnormal area in the brain, but they cannot always tell exactly what it is. Tumours such as gliomas or lymphoma, infections and inflammatory conditions can look alike. Treatment differs greatly between them, so a small sample of tissue is examined under the microscope and with molecular tests to make an accurate diagnosis.

A stereotactic biopsy is used when the abnormal area is deep, lies in an important part of the brain, or when removing it would not be helpful or safe. The aim is diagnosis rather than removal.

How is it performed?

The procedure is usually done under a general anaesthetic. Your scans are loaded into a navigation computer, and either a frameless navigation system with reference markers or a stereotactic frame fixed to the head is used to plan a safe path to the target, avoiding blood vessels. A small incision is made and a burr hole, about the size of a fingertip, is drilled. A thin needle is passed along the planned path and several tiny samples are taken. A pathologist often examines a sample during the operation to confirm that diagnostic tissue has been obtained. The wound is closed with a few stitches.



A fine biopsy needle is guided through a small burr hole to the target, using navigation linked to your scans.

02 Alternatives to surgery

- **Open surgery (craniotomy)** to remove some or all of the lesion, when it can be done safely.
- **Further tests** such as blood tests, spinal fluid analysis, specialised scans or a biopsy of a lesion elsewhere in the body, which may give the diagnosis without brain surgery.
- **Treatment without a diagnosis**, for example radiotherapy or steroids, which is generally not advised because the wrong treatment may be given.
- **Watching with repeat scans**, if the risk of biopsy outweighs the benefit.

03 What to expect during and following surgery

Before admission

- Tell us about any bleeding or clotting problems, recent illness, allergies and all medicines, including herbal remedies.
- Blood-thinning medicines (for example warfarin, aspirin, clopidogrel or the newer anticoagulants) and anti-inflammatories usually need to be stopped before surgery. Please follow the specific instructions you are given and do not stop any medication without advice.
- You will usually be admitted on the day of surgery or the day before, and must not eat from midnight before surgery, or as instructed by the anaesthetist.

In hospital

You wake up in the recovery room and are then transferred to the ward. Nurses will regularly check your pulse, blood pressure, limb strength, pupils and level of alertness to detect any change early, and you will be woken for these checks during the first night.

- You will have regular pain relief and anti-nausea medicine.
- A drip and sometimes a urinary catheter are usually removed within a day or so.
- You will be encouraged to sit out of bed and walk on the day after surgery.
- A **CT scan** is usually done a few hours after the biopsy to check for bleeding.
- **Going home.** Most patients go home after one or two days.

04 Risks and complications

All surgery carries risk. Most patients do not experience serious complications, but it is important that you understand what can happen. The list is not exhaustive; Professor Labuschagne will discuss the risks that apply particularly to you. The risks of the anaesthetic will be explained separately by the anaesthetist.

Common

●●●

- Mild headache and discomfort at the wound.
- A small amount of bleeding at the biopsy site seen on the scan, without symptoms.

Less common

●●○

- **Non-diagnostic biopsy**: the tissue obtained does not provide a definite diagnosis, and a repeat biopsy or open surgery may be needed.
- **Bleeding** causing new symptoms such as weakness, speech difficulty or drowsiness, which may be temporary or permanent.
- Seizures.
- Wound infection.
- Temporary worsening of existing symptoms due to swelling.

Rare but serious

●○○

- Major bleeding needing emergency surgery.
- Stroke, with permanent disability.
- Brain abscess or meningitis.
- Coma or death. These are rare.

05 After the operation: what is normal

- A small wound with a few stitches, usually removed after about seven to ten days.
- Mild headache for a few days.
- Results usually take one to two weeks, longer if molecular tests are needed.

06 Recovery

- **Activity.** Most people return to normal activities within a week, depending on their underlying condition.
- **Driving** depends on the diagnosis and any seizures; please ask before driving.
- **Results appointment.** You will be seen once the results are available, and treatment will be planned at a multidisciplinary meeting.

07 When to contact the rooms

Please contact the rooms the same day, or go to the nearest emergency department, if you notice:

- Increasing headache not relieved by your usual pain relief
- Increasing drowsiness or confusion
- A seizure (fit), or a fainting spell
- New or worsening weakness, numbness or difficulty walking
- New difficulty speaking or understanding
- New problems with vision
- Persistent nausea or vomiting
- Fever, chills or a stiff neck
- Redness, swelling, discharge or clear fluid leaking from the wound
- Calf pain or swelling, chest pain or shortness of breath

IN AN EMERGENCY

If you have a seizure that does not stop, a sudden severe headache, collapse, chest pain or difficulty breathing, call an ambulance or go to the nearest emergency department immediately. Tell the staff about your recent operation and ask them to contact Professor Labuschagne.

THE ROOMS · OFFICE HOURS

012 664 6026

Elective appointments and queries, office hours, for both Netcare Unitas Hospital and Nelson Mandela Children's Hospital

AFTER HOURS

After hours, call the hospital switchboard and ask for Professor Labuschagne: Netcare Unitas Hospital 012 677 8000 · Nelson Mandela Children's Hospital 010 133 0600

Emergency services: Netcare 911 · 082 911 | National ambulance · 10177

NETCARE UNITAS HOSPITAL

Room 403, Netcare Unitas Hospital
866 Clifton Avenue, Lyttelton, Centurion

NELSON MANDELA CHILDREN'S HOSPITAL

Private Suites, First Floor
6 Jubilee Road, Parktown North, Johannesburg

08 Consent

Informed consent is a conversation, not simply a signature. The National Health Act 61 of 2003 and the ethical guidelines of the Health Professions Council of South Africa (HPCSA) give every patient the right to be told, in a language they understand, about their condition, the treatment options available, the benefits, risks, costs and consequences of each, and the right to refuse treatment. You may withdraw your consent at any time before the operation.

If you are unable to give consent yourself, the National Health Act (section 7) allows consent to be given by a person you have authorised in writing or, failing that, by your spouse or partner, parent, grandparent, adult child or sibling, in that order.

THE PROCEDURE

Procedure Stereotactic (navigated) biopsy of brain lesion Side / site _____

Condition, in my own words _____

SPECIFIC PERMISSIONS

Blood transfusion, if needed during or after surgery	☐ I agree	☐ I do not agree
Tissue or fluid removed may be sent for laboratory examination	☐ I agree	☐ I do not agree
Anonymised images or results may be used for teaching and research (optional)	☐ Yes	☐ No

Questions I have discussed

Please write down any questions you asked and any particular concerns that were discussed.

My acknowledgement

Please tick each statement.

- ☐ I have read this document, or it has been read to me, and I understand it.
- ☐ Professor Labuschagne has explained my condition, the proposed procedure, its expected benefits, and the alternatives, including the option of no treatment.
- ☐ The risks and possible complications, including those particular to me, have been explained in language I understand.
- ☐ I have had the opportunity to ask questions and raise concerns, and these have been answered to my satisfaction.
- ☐ I understand that no guarantee has been given about the outcome, and that the procedure may not improve, and could worsen, the condition.
- ☐ I understand that if an unexpected finding or a life-threatening event occurs during the procedure, the surgeon may carry out further treatment that is necessary to protect life or prevent serious harm.
- ☐ I understand that the anaesthetic will be explained by the anaesthetist, who will obtain consent for it separately.

- [ ] I understand that my medical scheme may not cover the full cost of treatment, that I am responsible for any shortfall, that separate accounts will be rendered by the hospital and the anaesthetist, and that a quotation is available on request.
- [ ] On the basis of the above, I request that I undergo the procedure described.

PATIENT

Full name _____ ID number _____

Signature _____ Date and time _____

If the patient is unable to consent: person consenting on the patient's behalf (National Health Act, section 7)

Full name _____ Relationship _____

Signature _____ Date and time _____

SURGEON'S STATEMENT

I have explained the patient's condition, the need for treatment, the proposed procedure and its expected benefits, the material risks including those specific to this patient, the reasonable alternatives including no treatment, and the likely consequences if those risks occur. I have offered the opportunity to ask questions and have answered them as fully as possible.

Surgeon Professor Jason John Labuschagne HPCSA no. MP 0530077

Signature _____ Date and time _____

INTERPRETER (IF USED)

I have accurately interpreted the contents of this document and the discussion between the doctor and the patient.

Full name _____ Language _____

Signature _____ Date _____

WITNESS

Full name _____ Capacity _____

Signature _____ Date _____

A copy of this signed document will be kept in the medical record and a copy offered to the patient. Personal information is processed in accordance with the Protection of Personal Information Act 4 of 2013. · Professor Jason John Labuschagne · HPCSA MP 0530077 · Version 1.0 · October 2026