

Neurosurgery

Craniotomy (Mr Shad's patients)

A craniotomy is an operation to open the skull (cranium) in order to access the brain to carry out surgery. There are many different types of brain surgery, but the recovery process following craniotomy is much the same in most cases.

Conditions requiring craniotomy

Some of the conditions that require craniotomy and surgical repair include:

- Head Injury
- Brain tumours
- Infection/ Brain Abscesses
- Aneurysm/Arteriovenous Malformation

Why is it required?

Any pressure on the brain can be harmful as it forces the brain against the skull, causing damage as well as decreasing the brain's ability to function properly. This decrease in function can lead to long-lasting brain damage or even death.

The Operation

- The procedure is carried out under a general anaesthetic.
- The hair on your scalp is shaved so that we can get to the area requiring surgery.
- Scans before the operation allow the neurosurgeon to locate the correct site for surgery.
- The operation then begins by reaching the brain through small holes (burr holes) which are joined together to form a flap which is



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then removed.

- The brain can then be operated on and the required surgery carried out.
- After surgery the flap is replaced and a drain is placed into the site to allow excess fluid to drain away.
- The wound is then closed using staples or stitches.
- The operation can take about two and a half hours.

Immediately after the operation

You will be constantly observed for the next 24 hours in a special ward. Your observations will include pulse, blood pressure and some neurological tests; these may include your eyes reaction to light and following some instructions such as squeezing a hand.

- If you are well enough, you will be allowed to drink and eat the next day and be allowed to sit out of bed.
- Any intravenous drips and drains will be removed 24 hours later and stitches (or staples) will be taken out about 5 days after the operation.
- Medication such as steroids (to control swelling) and anticonvulsant medication (to prevent seizures) are commonly prescribed following craniotomy. Steroid tablets will be reduced gradually over several days.
- The area around the wound is usually numb or itches for up to 6 months after surgery. This is normal.
- For operations on the front of the head, the muscle which opens the mouth is cut and this can leave the jaw stiff and hard to open wide. This usually recovers within a few weeks. Recovery can be helped by chewing gum.
- When the medical staff in consultation with yourself, consider that you should be able to manage at home, you will be discharged, but you will be given follow-up appointments.
- Returning to work will depend on the underlying reason for the operation and the progress of your recovery.
- The DVLA (Driving & Vehicle Licensing Association) will usually withdraw your driving licence for one year after the operation because of the slightly increased risk of epilepsy after brain surgery. This risk is usually not large enough to require anti-epileptic tablets.

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- Air travel after a couple of weeks of a craniotomy should be no problem, but discuss this with your consultant.

Possible complications of a craniotomy

All operations carry some risks. Brain surgery carries more than most.

Any operation can be complicated by heart trouble, chest infections, blood clots in the leg (thrombosis) and wound infections. The chances of these complications are greater in elderly or unhealthy patients and, in particular, those who smoke or drink heavily.

Some of the possible complications of surgery can include:

- Anaesthetic complications (0.2%)
- Infection (1-2%) and meningitis (less than 1 %)
- Seizures (4-14%)
- Post -operative bleeding requiring urgent re-operation (1%)
- Brain swelling which may require the patient being ventilated.
- CSF (Cerebral spinal fluid) leakage. (1 %)
- A stroke affecting face or speech or limb (7.5-13%)
- Risk of death (1-2%)

For more information about the risks involved, please discuss these with your surgeon

At home

There are factors to consider or to be aware of. If you have any concerns please speak to your doctor:

- If your doctor has prescribed medicines, please make sure you take them as directed.
- Alcohol could interact with your medications, so check with your doctor.
- There may be a depression in your skull where the bone flap was removed.
- Your wound may ache for a few days after the operation. You may experience itching as the skin heals. This is normal.

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- You may experience headaches for about two weeks.
- Your wound may have a small pocket of fluid beneath it for a while. This is normal and should disappear with time.
- The skin on one side of your wound may feel numb for some months.
- Expect to feel unusually tired. Take plenty of rest; afternoon naps may help.
- You may return to work (for light duties only) after about six weeks.
- Driving: You may not be able to drive for between three months to 12 months. This will depend on the decision of the DVLA.
- Walking is a recommended form of exercise. You should wait at least three months before you return to gentle, non-contact sporting activities.
- Contact sports should be avoided for at least one year.
- Physiotherapy, occupational therapy and speech therapy can help you manage any neurological problems like clumsiness and speech problems. Usually, therapy is only needed if there were neurological problems before surgery.

Problems

See your doctor immediately if you experience any signs of wound infection (such as redness or discharge), or if you have any other unusual symptoms such as severe headaches, seizures, vomiting, confusion or chest pain.

Long term outlook

Your recovery depends on various factors, including:

- The kind of brain injury you have had
- How severe the injury was
- Complications of the injury
- The presence or absence of neurological problems
- The type of surgery you have had
- Complications of the surgery
- Side effects or complications of postoperative treatments, such as radiotherapy
- Your age and general health, including other medical conditions you may have.

Patient Information

Where to get help

- Your G.P
- Neurosurgical Unit: Ward 43 Tel 024 7696 4000 Ext. 25330
- Always call an ambulance in an emergency

Things to remember

- A craniotomy is an operation to repair the brain surgically.
- There are many different types of brain operation, but the recovery process following craniotomy is much the same as other operations.
- Recovery depends on many factors, including the type and severity of brain injury, the type of surgery and whether or not there were neurological deficits before surgery.

The information provided in this leaflet covers general information about this treatment. The specifics may vary to meet your individual needs, so it is important to always follow your consultant's advice. Everyone is different so individual assessment and advice will be given at each stage of your treatment.

If you need any further information or clarification please contact Ward43 on 024 7696 8240 or 024 7696 5330

The Trust has access to interpreting and translation services. If you need this information in another language or format please contact 024 7696 8240 and we will do our best to meet your needs.

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