

PROCEDURE INFORMATION

CRANIOPLASTY



WHAT IS A CRANIOPLASTY ?

This is where the bone defect in the skull left behind after a previous operation or injury is repaired. This can be done in lots of different ways. The scalp is lifted and something is placed into/over the boney defect.

The substances used are:

- The original bone if it was kept.
- Rib Graft
- Titanium Mesh
- Titanium Plate
- Synthetic bone substitute
- Acrylic (prefabricated)
- Acrylic (fabricated at the time of surgery)

WHAT ARE THE REASONS FOR HAVING A CRANIOPLASTY ?

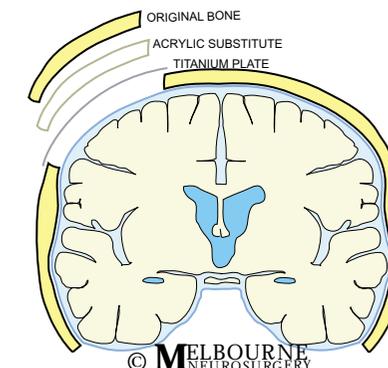
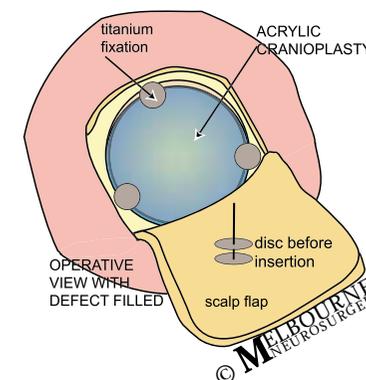
- Cosmetic** A hole in the head looks unsightly
- Protection** The defect if in certain places leaves the brain exposed and may allow damage to occur.
- Headaches** Sometimes headaches can occur if the bone is not replaced.
- Function** In some patients there is a definite improvement in neurological function if the bone is replaced

WHAT YOU NEED TO TELL THE DOCTOR BEFORE SURGERY ?

- If you have clotting problems.
- Any Health problems.
- If you are taking blood thinning agents.
e.g. Warfarin/aspirin/anti- inflammatory
- Drug or other allergies

HOW IS IT PERFORMED ?

In the operating theatre you are given a general anaesthetic and then positioned with the bone defect uppermost. The area of the incision is then shaved and prepared with anti-septic. You are covered in drapes so that only the incision can be seen. Local anaesthetic is injected and then the skin is cut. The scalp is dissected from the dura and the edges of the surrounding bone are cleaned to allow the graft to stick. If the original bone is available or a replacement has been made preoperatively then this is placed in the defect and secured either with screws and plates or with special discs (see pict).



If the graft is not available one is fashioned from the chosen material. This is contoured to fit. This is also fixed to the surrounding bone. Once plated all bleeding is stopped. Everything is then repositioned the way we found it. The skin is then closed either with nylon suture or with special staples.

WHAT HAPPENS NEXT ?

You will wake up in recovery and after about 1 hour you will be transferred to the ward. The nursing staff will be continually checking your pulse/blood pressure/limb strengths and level of alertness looking for any changes to indicate a complication. During the first night on the ward you will be woken for these observations. You will have intramuscular and oral analgesia . Operations on the head do not often hurt much. Sometimes you will have difficulty passing water and a you may require a catheter(this may have been inserted for the operation).

In the next day or so the drip in your arm will be removed. Usually this is the day after surgery. The day after surgery you will be encouraged to go for a walk. Gradually over the next two days you will be able to get around as normal. When you are comfortable you will be able to go home. You may have a repeat scan of your head before going home. Commonly you will have a headache for a while after the operation. The sutures are usually removed about 5 - 10 days after the surgery.

HOW LONG WILL YOU BE IN HOSPITAL

Unless you have been admitted as an emergency you may be admitted on the day of surgery or the day before. You will fast from midnight on the day of surgery. You will be discharged about 5-7 days post-operatively. On discharge you will be able to perform most tasks of daily living (e.g. showering/dressing/etc.) Depending on how quickly you recover from any preoperative disability you may require rehabilitation.

WHAT YOU SHOULD NOTIFY YOUR DOCTOR OF AFTER SURGERY

Increasing Headache
Fever
Fitting
Swelling or infection in the wound.
Fluid leaking from the wound.
Weakness or numbness
Drowsiness

WHAT HAPPENS WHEN YOU GO HOME ?

You will be tired
It is common to require a rest in the afternoon
You may have intermittent headaches.
These will all improve with time.

DO NOT DRIVE UNTIL YOU ARE REVIEWED
You will be reviewed at 4 - 6 weeks post operatively.

WHAT ARE THE RISKS?

Discuss these and others with your surgeon
THE COMMON RISKS ARE

Infection (treated with antibiotics)
Post operative blood clot requiring drainage.
Stroke
Seizure
Death (rare)
Clot in the legs(can travel to the lungs[uncommon])
Complication not related directly to the surgery
e.g. Pneumonia
Heart attack
Urine infection

HOW BIG IS THE CHANCE OF INFECTION ?

Because there is an implant the risk of infection is not small. Even the bone that we use is technically dead and may still get infected. It depends on the the substance we use. The biggest risk is probably if we use the acrylic graft. If an infection does occur then we take out the implant and replace it with something else when the infection has cleared. If the cranioplasty is being done because you have had infection in the past the risk of infection still remains high because of the chance of re-activation.

Sometimes the bone that we use may be reabsorbed by the body. This may be noticable and need repair later with a different type of implant.

YOU WILL BE ASKED TO SIGN A CONSENT FORM TO SAY THAT YOU UNDERSTAND THE RISKS . IF YOU ARE NOT SURE ASK BEFORE YOU SIGN.

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