

Intracranial Pressure Monitoring

Information for Children, Parents and Carers

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What is Intracranial Pressure Monitoring (ICP)?

ICP is a monitoring procedure carried out by a neurosurgeon to measure the pressure inside your child's head. The neurosurgeon caring for your child will have already discussed the reasons for this investigation with you.

Below are questions often asked by parents about ICP monitoring

What will happen before the procedure?

The neurosurgeon and anaesthetist will talk to you and your child before theatre to explain the procedure fully. The nurse caring for your child will advise you about fasting times before theatre.

How is it done?

Intracranial pressure monitoring takes place at your child's bed either on St Gabriels Ward or in Paediatric Intensive Care Unit (PICU). To allow monitoring take place a monitoring device is inserted into your child's head by the neurosurgeon in theatre while your child is under a general anaesthetic. The monitoring device is connected to a box which measures pressure inside the head. A monitor is attached to this box, this will record your child's ICP. The nurse will review and record your child's ICP readings every hour.

How long does the monitoring last?

The monitoring generally lasts 24 - 48 hours but occasionally it can last up to several days. This will be explained to you by the neurosurgery team.

Can my child move freely when this device is inserted?

As your child is connected to the box and monitor, it is important they are watched to make sure the monitoring probe is not pulled out or disconnected. The nurses caring your child will make sure the device is secure before your child moves around the ward. The nurse will also advise you about the amount of activity that is appropriate for your child. During this time it helps to keep your child amused to divert attention from the equipment.

Is there anything that affects the recording?

Activities that affect the pressure in your child's head such as changing position, coughing, sneezing, straining, being awake, asleep, eating, drinking and crying. The nurse caring for your child will be recording their pressure measurements every hour or if the pressure number is high. If the pressure is increased due to any of the above activities, the nurse will be recording what activity was occurring at the time so as to explain why the pressure was increased.

What happens after the monitoring?

Once the recording period is completed, the monitoring device will be removed. This is carried out on the ward. The neurosurgeon will discuss the results with you and plan any further treatment your child may need. If no further treatment is required, your child may be discharged home after the device is removed. You will receive an outpatient's appointment for your child to be followed up.

Will there be any pain once the measuring device is inserted?

Some children may experience a headache after the device is inserted. The nurse will give your child pain relief medicine if this happens.

Are there any risks of ICP monitoring?

There are usually very little risks associated with ICP monitoring; however below are a list of some potential risks:

- Bleeding
- Infection
- Leak of cerebrospinal fluid
- Computer malfunction or failure to record

The risks will be discussed by one of the doctors on the neurosurgical team before you sign the consent form for your child's procedure.

Are there any signs or symptoms to observe for once my child is discharged home?

You should watch your child and contact the ward if:

- There is any oozing from your child's wound site
- Your child becomes drowsy or confused
- You notice signs of infection, for example swelling, pain, redness or a high temperature

Some children will need a couple of stitches once this probe is removed. These stitches are usually dissolvable, if not please check with your nurses what arrangements are made to have these removed.

Your child's nurse will advise you on when it is appropriate for your child to resume their usual activities and return to school.

