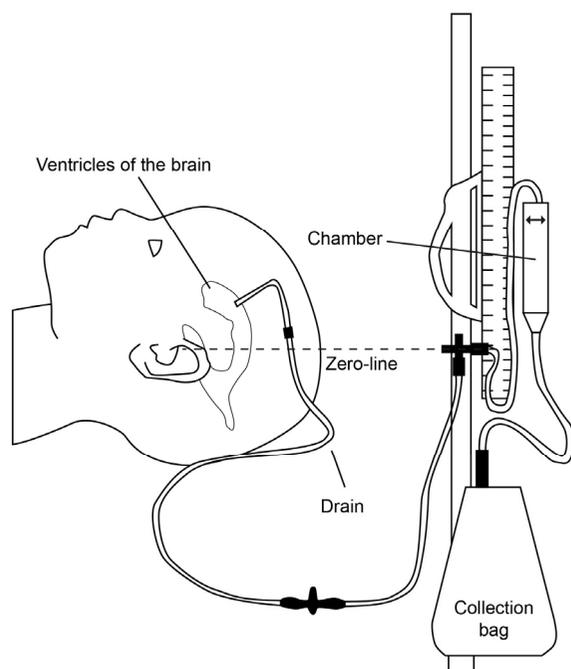


An external ventricular drain (EVD) is a temporary method that uses gravity to drain cerebrospinal fluid (CSF) out of compartments in the brain, called ventricles, via a thin tube that goes out of the head into a chamber and bag. The tube is inserted in the operating theatre. It is stitched in and covered with a dressing.



What is cerebrospinal fluid (CSF)?

CSF is a fluid that is continuously made in the ventricles in the brain. It flows through the brain and spinal cord, before later being reabsorbed. CSF provides cushioning and nutrients to the brain and spinal cord.

Why is an EVD needed?

Sometimes infection, injury or other conditions may cause either too much CSF to be made, not enough to be reabsorbed, or the flow of CSF to become blocked. The CSF builds up creating pressure within the brain. An EVD will relieve the pressure by draining off some of the CSF. The amount drained is variable and depends on several factors including height of the chamber in relation to the ventricles in the brain. The drain will be adjusted every time your child changes position. This will help reduce the problems associated with either over drainage or under of CSF.

What else will happen?

To make sure that your child will be closely monitored, a nurse will be with your child at all times. Your child will have regular neurological observations; your nurse can provide you with the Neurological Observations Parent Information Sheet.

Problems that your nurse will be looking for include if your child:

- > seems irritable, confused, disorientated (do not know where they are), or just not their usual self
- > seems more sleepy than usual
- > says they have a headache
- > vomits or say they feel sick
- > says that they have double vision or blurry vision
- > has fluid leaking from the head or tubing

The nurse will clamp the EVD before your child sits up, lies down or is picked up. After the height

of the EVD is adjusted, then the nurse will open the clamps.

The nurse will empty the chamber hourly while keeping the system closed to reduce the risk of infection. The amount of CSF drainage will be recorded.

CSF specimens will be taken for testing from the EVD on doctors orders.

Will my child have pain?

An EVD should not cause pain however paracetamol will be available as needed and additional pain relief depending on your child's condition.

What do I need to do?

Immediately inform your nurse if your child changes position eg sits up or lies down, or before you pick your child up.

Under no circumstances should anyone except your nurse or doctor touch the EVD.

Help prevent infection by regular hand washing or use of hand gel for you and all visitors.

Daily activities

You may help your child with many of their usual daily activities, with assistance from your child's nurse.

Your child will not be able to walk around but may be able to sit out of bed, with assistance from your nurse.

During meal times your child should sit up as much as possible to avoid the risk of choking.

Activities continued

You and your child's nurse will work together to ensure that your child keeps their hands away from their EVD tubing so that it is not accidentally dislodged, this can be done by providing play and distraction.

Play therapists are available Mon-Fri on the ward to help keep your child active and stimulated while the EVD is in place.

When will the EVD be removed?

The length of time an EVD is needed varies, the neurosurgeon will discuss with you when it may be removed. The EVD will be removed by the doctor either on the ward, or in the operating theatre if further surgery is required. After the EVD is removed a permanent method of draining CSF is sometimes needed. This is known as a shunt. If your child is likely to need a shunt, the Neurosurgeon will discuss this with you. The Neurosurgery CPC can provide you with additional shunt information as required.

Questions

If you have any questions about your child's progress or care requirements, please ask either the neurosurgeon, the nurse caring for your child, or the Neurosurgical Clinical Practice Consultant.

For more information

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Non-English speaking: for information in languages other than English, call the interpreting and Translating Centre and ask them to call Department of Health. This service is available at no cost to you, contact (08) 8226 1990.

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External Ventricular Drain

Information for
parents & carers