

External Ventricular Drainage Explained



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What is an external ventricular drain (EVD)?

It is a piece of flexible tubing that sits in an area of the brain called a **ventricle**. It drains off a substance called cerebro spinal fluid. The fluid is collected in a container, which allows the fluid to be measured.

What is a ventricle & what is cerebro spinal fluid?

A ventricle is part of a system in the head called the **ventricular system** that acts as a reservoir and drainage system for a liquid called **cerebro spinal fluid (CSF)**. CSF surrounds the spine & brain and acts amongst other things as a cushion to protect them.

Why has an external ventricular drain had to be put in?

Sometimes, the ventricular system doesn't work as well as it should—especially when the brain has swollen, has been damaged or a person has had a brain haemorrhage. This leads to a condition called **hydrocephalus**, which is a build up of CSF. If left untreated this can be very serious and potentially life threatening. A temporary way to alleviate this problem is to insert an external ventricular drain until the ventricular system is able to work again. Occasionally in some people, further intervention may be required if the problem continues and the options for this would be discussed with you if this became necessary.

What does the external ventricular drain do?

It acts as a substitute for the ventricular system by draining the CSF into the external ventricular drain collection system. The nurses observe the CSF for amount and colour of the CSF, and to ensure the drain has not become blocked. If there is any problem, then it is reported to the medical staff and the appropriate action is taken. small amounts of CSF can be taken from it to check for infection and antibiotics can also be administered through it if required

Does it Need an Operation to put it in?

Yes, a very quick, simple procedure that is done under sterile conditions. If very urgent, occasionally it is done on the ward but very rarely.

Are there any dangers with it?

There is a risk of infection, which is why the nurses observe the CSF closely. Occasionally, CSF can drain too quickly which can cause other problems, headaches being the most common. External Ventricular Drains can also become blocked.

The nurses observe the CSF drainage and perform neurological observations at regular intervals to detect for the development of any problems.

What does an external ventricular drain look like?

Different companies make slightly different products, but they follow similar principles of safe drainage.