What is an extradural haematoma?
An extradural haematoma (E.D.H) is a collection of blood on the surface of the brain. Between the brain and the skull there are three layers that cover and protect the brain. The layer nearest the skull is called the dura. The space between the dura and the skull is called the extradural space. If a blood vessel within this space is injured, blood can leak out and a haematoma (clot) can form. This type of injury is usually associated with a skull fracture and the tearing of an artery which covers the dural layer.

What causes an EDH?
An E.D.H is caused by a traumatic blow to the head most commonly as a result of a road traffic accident, fall, assault or contact sports. An E.D.H rarely occurs spontaneously. It can be associated with other injuries to the brain such as contusions (bruising).

What are the signs and symptoms?
The clot (E.D.H) takes up space in the brain and in turn causes pressure within the skull (intracranial pressure). This pressure can affect the function and structures of the brain resulting in symptoms as listed below.

In the majority of cases, the person becomes drowsy or loses consciousness. This is often followed by a recovering and lucid period lasting for a few minutes to a few hours. After this time the person can start to become rapidly worse, they may be dizzy, confused and start to lose consciousness again.

Other symptoms may include:
- Tiredness
- Confusion
- Speech difficulties
- Nausea and vomiting
- Headaches
- Seizures (fits)
- Limb weakness

An E.D.H can result in further damage to the brain as pressure increases and can be potentially life threatening if left untreated. If you develop any of the symptoms above following a head injury you should seek medical advice immediately.

Diagnosis
The doctor will make the diagnosis from the history, the symptoms and certain tests. These may include;

- CAT Scan – computerised X-ray of the brain showing where the clot is over the brain. This is the most common test used.
- M.R.I Scan-(Magnetic Resonance Imaging) a computerised image of the brain using a magnetic field. This test is not commonly used unless there is something unusual about location or appearance of the clot.

Treatment
The treatment of an E.D.H depends on the size and type of clot. If left untreated an E.D.H can increase in size and press onto the brain. This pressure can cause damage to the brain and prevent it from functioning properly and can lead to further injury to the brain.

Conservative Treatment
A small E.D.H with no major symptoms may be treated conservatively (i.e. not have an operation) as the clot can often reabsorb on its own. You will have to stay in hospital for close observation and have further C.T. scans during this time to ensure that there is no further bleeding.

Surgical Treatment
If symptoms and size of clot are more severe then surgery may be required to remove the clot. A larger E.D.H will require a surgical procedure called a Craniotomy.
**Craniotomy**

This is a large opening in the skull which allows greater access to the brain. It is usually carried out if the clot is large and it is the most common surgery performed to treat E.D.H.

**Recollection**

There is a small chance that some E.D.H may not completely resolve even after surgery. As time goes on the risk that the E.D.H may reoccur becomes less and less. Sometimes symptoms may reappear and further surgery may be required.

**Recovery**

It is not possible to predict how long it will take or to what extent someone will recover. Recovery depends on the type of injury and the amount of brain injury that has occurred as a result. If you have been transferred from another hospital to Beaumont for treatment you may be transferred back, once stable, to that same hospital while you recover before you return home.

Other publications about Craniotomy Surgery, Seizures and Brain Injury and Recovery after Brain Injury are also available from the Neuroscience Department in Beaumont Hospital.

**Long-term problems**

The majority of patients will recover well and will not experience any long term problems. However some people may experience problems that can last for the longer term. This will be discussed with you in greater detail by your doctors and nurses if applicable.

This leaflet was developed in order to provide you with information on your condition. Whilst you are in hospital, you will be reviewed regularly by your doctors. If you have any questions, we encourage you to speak to a member of the nursing staff or your doctor.

**Contact Details**

Beaumont Hospital  
Tel: 01 8093000  
Acquired Brain Injury Nurse  
Tel: 01 8092913

Further information and advice is available from:

**Headway Ireland**  
The National Acquired Brain Injury Association  
National Helpline: 1890 200 278  
Email: info@headwayireland.ie  
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