

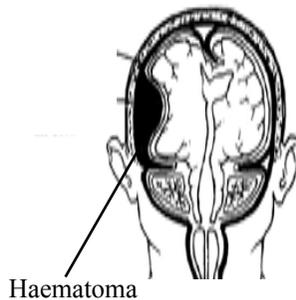
## What is a Chronic Subdural Haematoma?

A chronic subdural haematoma is a collection of blood between the surface of the brain and the outermost layer called the dura.

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 below the dura is called the subdural space. If a blood vessel within this space is damaged or tears, blood can leak out and form a clot; this is called a subdural haematoma (S.D.H).

These clots usually occur on one side of the brain however they can occur on both sides (bilateral). They are classified as acute or chronic based on the length of time between when the injury occurred and the onset of signs and symptoms. A chronic SDH is a clot that develops slowly over time.

Bleeding often occurs from smaller vessels. The clot is small to begin with but can gradually increase in size over time from a few weeks to months.



## What causes a chronic S.D.H?

### There are a number of reasons why a Chronic SDH can occur:

#### Trauma

Often the clot can develop from a seemingly minor trauma to the head which the person barely notices. This injury may occur weeks to months before diagnosis is made. It may be difficult to remember what caused the initial injury. In some instances there may be no history of any trauma and a bleed can occur spontaneously and form a clot.

#### Old Age

This type of injury most commonly occurs in the older age group (over 60yrs). As we get older the brain shrinks in size creating more space between the brain and the skull.

This stretches the blood vessels thus making them more vulnerable to tearing and rupturing and allows more space for a clot to develop.

Also chronic S.D.H is common in very young and elderly people as they are more prone to falls.

#### Chronic Alcohol Abuse

Long-term use of alcohol can also result in brain atrophy (shrinking or wasting of the brain tissue) which increases the risk of a clot developing as in the elderly. Also falls are more common in this risk group.

#### Anti-coagulant use or diseases associated with clotting problems

A chronic S.D.H may occur in people who use anti-coagulant (blood thinning) medication such as Warfarin or Aspirin. If the blood clotting function is irregular then it can prevent a bleed from clotting and result in a larger clot forming.

## Signs and Symptoms

The clot takes up space in the brain and in turn causes pressure within the skull. This pressure can affect the function and structures of the brain resulting in symptoms as listed below. These symptoms can vary and are likely to change.

With a chronic S.D.H symptoms may not develop immediately after the injury (from 2 weeks to several months) and may be subtle in nature.

#### Symptoms Include

- Drowsiness or loss of consciousness
- Confusion
- Headaches
- Nausea and vomiting
- Visual disturbances
- Limb weakness

- Speech difficulties – slurring, problems finding words
- Increased number of falls
- Seizure (fit)

A chronic S.D.H can result in further damage to the brain as pressure increases and can be potentially life threatening. Symptoms can improve initially but can then worsen dramatically. If you develop any of these symptoms following a head injury you should seek medical advice immediately. It is important that you inform the doctor of any head injury that may have occurred over the previous few months.

## Diagnosis

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

**C.T 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 goal of treatment is to control symptoms and minimise or prevent permanent damage to the brain. If left untreated a chronic S.D.H can increase in size and press on 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. Treatment options will depend on the size and type of clot.

#### Conservative Treatment

A small chronic S.D.H with no major symptoms may be treated conservatively (not require an operation) as the clot can often reabsorb on its

own. You may have to stay in hospital to be monitored and have further scans during this time to ensure that there is no further bleeding.

### Surgical Treatment

If symptoms are more severe then surgery may be required to remove the clot. This can be done in two ways, either by burr-hole or craniotomy.

### Burr-hole Surgery

Holes are drilled through the skull over the area of the bleed and the clot is removed. This operation requires two small incisions which are closed with stitches or staples. This is the most common type of surgery performed to treat a chronic S.D.H.

### Craniotomy

This is a larger opening in the skull which allows greater access to the brain. This is usually carried out if the clot is large and if it appears more solid and cannot be removed by burrhole surgery.

### Recollection

There is a risk that some clots may not completely resolve even after surgery and may continue to bleed. As time goes on the risk that the chronic S.D.H may reoccur becomes less and less. If you experience any symptoms returning after surgery you should contact your GP or local hospital as you may require further surgery.

### 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](mailto:info@headwayireland.ie)  
Website: [www.headwayireland.ie](http://www.headwayireland.ie)

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**Patient Information**  
**on**  
**Chronic Subdural**  
**Haematoma**