WHAT IS A SUBDURAL HAEMATOMA?

A Subdural Haematoma is a collection of blood over the surface of the brain. The brain is bathed in cerebrospinal fluid (C.S.F.), above this is a layer called the arachnoid layer and underneath the bone is a layer called the Dura. The reason the blood clot is called a SUBDURAL HAEMATOMA is because it is under the dura.

TYPES OF SUBDURAL

ACUTE SUBDURAL
This is where the blood clot occurs suddenly. It is usually related to major head trauma and is more common in young people or elderly people who have a big fall. This is usually a solid blood clot.

CHRONIC SUBDURAL
This is what an acute haematoma becomes after time. Over time (usually about 21 days) the solid clot turns to liquid. With this change the clot can get bigger either as it bleeds into the space more or if the clot sucks in water from the surrounding tissues.

WHAT IS THE CAUSE?

Either a blood vessel must rupture or a tear in the brain itself produces the blood that is in the subdural space.

ACUTE SUBDURAL
It usually happens with a significant head injury in young people and hence there will be problems from the brain injury as well as the blood clot. It may occur in more minor trauma such as a sports injury and then the head injury may be less of a problem. Elderly people get large acute bleeds with minor trauma because the brain has become smaller and the space over the surface increases. A small fall may tear a blood vessel that leaks slowly into the subdural space.

CHRONIC SUBDURAL
These are far more common with falls in the elderly because the brain is small and the clot is initially accommodated without any symptoms. It may not be recognised until it grows large enough to produce severe symptoms. The cause of your symptoms may go unrecognised until the clot is diagnosed. They are also found in young people when the initial acute bleed was small and has not been diagnosed allowing the clot to liquify. As it grows the symptoms get worse.

THE SYMPTOMS

- Raised pressure
- Headache
- Nausea and Vomiting
- Blurred vision
- Local pressure on the brain
- Stroke like symptoms
- Confusion and falls in the elderly
- Visual symptoms
- Epilepsy

Section through brain (showing how clot spreads over the surface)
HOW IS THIS DIAGNOSED?

Your doctor will usually make the diagnosis from the symptoms that you have. There can be similar symptoms with other lesions in the brain. So he will investigate you to find out the cause.

CAT SCAN

This is best test. This is a computerised X ray of your head that will show the blood over the surface of the brain. If it is black on the CT scan this suggests a chronic lesion and if it is white and acute subdural.

M.R.I. (Magnetic Resonance Imaging)

This is rarely done unless there is something odd about the location or appearance on the CAT scan. It produces pictures like the CAT scan but they are generated using a magnetic field and not using radiation.

You are referred to a Neurosurgeon after the CT scan confirms the bleed.

TREATMENT?

This will depend on the size and type of subdural you have.

If the subdural is large and acute and causing problems then you are usually suggested to have a Craniotomy (see leaflet) to have the clot removed.

If the clot is large and chronic and causing problems then a burrhole (see leaflet) is suggested if on the CAT scan we feel that all the blood is liquid. Sometimes the clot is mixed solid and liquid, if this is the case we will recommend the same operation as for a solid acute subdural (craniotomy).

If you only have a little headache and no pressure symptoms with a very small solid acute clot we may elect to observe for a while in the hope that it will resolve on its own. Even if it does not the clot may liquify so that a burrhole can be used rather than a craniotomy to remove it.

If you have a small chronic subdural, again with no significant symptoms, we may watch in the hope it will go away on its own.

WHAT ARE THE REASONS FOR DRAINAGE?

The commonest reason is that you are suffering from headaches. Other reasons are because you have symptoms from pressure on the brain which may cause things like weakness/confusion or fits.

Sometimes the clot can expand over time and cause you to become drowsy.

If it gets really large then it can cause unconsciousness.

If the clot is so large that you are drowsy or unconscious then a relative will be contacted to give consent for the procedure.

IS SURGERY ALWAYS NEEDED?

No. A large number of small chronic subdurals can be observed and will settle on their own.

BUT If the scan shows the brain to be significantly compressed surgery is usually recommended.

CAN THEY RECUR?

In the early period there is a chance if they do not completely resolve. After they have completely gone the chance is small.

Sometimes they do not seem to be cured with the usual treatment and may require either an extensive operation or a shunt to be inserted.

FOR ABOVE PROCEDURES SEE THE RELEVANT PROCEDURE LEAFLET