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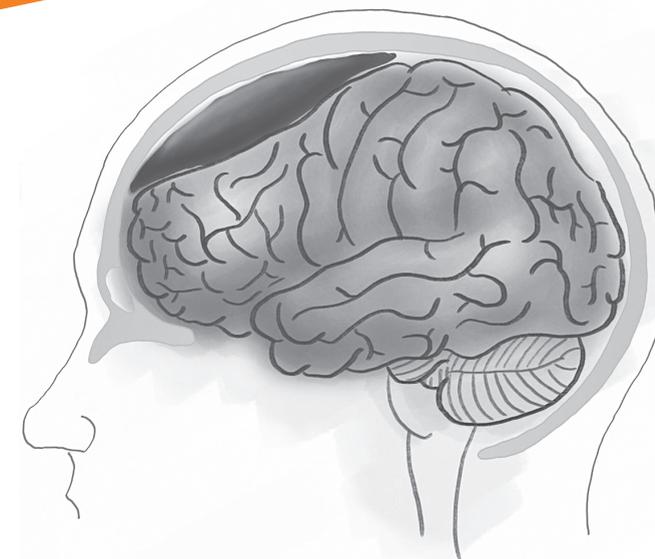
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## Neurosurgery Department



The National Neuroscience Institute operates out of  
two main campuses (TTSH, SGH) and  
four partner hospitals (CGH, KKH, KTPH, SKH).



# Chronic Subdural Haemorrhage

Brochure content serves as a guide only  
Seek the advice of your doctor for more details

Information correct as of December 2020

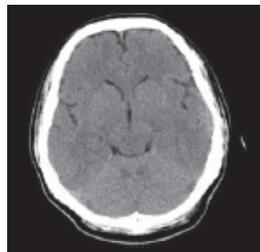


National  
Neuroscience Institute  
SingHealth

## Understanding Chronic Subdural Haemorrhage (CSDH)

Chronic subdural haemorrhage (CSDH) is a collection of blood and fluid between the surface of the brain and its outermost covering known as the dura (Figure 1).

Small veins called “bridging veins” are located between the surface of the brain and the dura. A subdural haemorrhage can develop after a head injury where the veins can tear and bleed.



Normal brain scan



Blood and fluid between the brain and dura

Figure 1  
Comparison of a normal brain scan and a patient with CSDH

Small, repeated bleeds of veins within the fluid increases the amount of fluid around the brain as time passes. Symptoms usually occur weeks after the initial head injury.

### Signs of CSDH

- Worsening headache
- Difficulty in walking
- Confusion
- Weakness and/or numbness in arms, legs or face
- Drowsiness
- Seizure
- Coma

## Diagnosing CSDH

A detailed history and examination are needed to assess mental function, limb strength, coordination, walking and balance. If there are abnormalities, a Computed Tomography (CT) scan may be needed.

### Risk Factors

Brain atrophy (shrinking of the brain) is one of the major risk factors for CSDH after a head injury. When the head is hit, more brain movement causes the veins to stretch and tear easily. Brain atrophy is usually seen in the elderly and in patients who abuse alcohol.

Patients who are more prone to bleeding, have blood clotting issues or are on long-term blood-thinning medication are also at higher risk.

In rare cases, a CSDH can occur without any head injury and this may need further investigation.

### Treating CSDH

Surgery is recommended if a patient's functions like mobility are affected.

If functions are not affected, regular CT scans can be ordered to monitor the condition.

During the surgery, a small opening or holes will be created in the skull to drain fluid. In some cases, a tube may be inserted for one to two days to continue draining the fluid post-surgery.

After the surgery, patients must lie flat for 24 to 48 hours for the brain to expand. Most can be discharged within a week and rehabilitation can be arranged if needed.

CSDH may recur in up to 30% of cases and repeat surgery may be required.

## Managing CSDH

Adopt the following wound care methods after surgery:

- Cover the wound with sterile dressing.
- Visit a polyclinic/GP to change the dressing if it is wet, dirty or loose.
- Keep the wound and dressing dry and clean until the sutures or staples are removed.
- You may wash your hair gently with mild shampoo a day after the sutures and staples are removed.
- **DO NOT** scratch, massage or stretch the wound area.
- **DO NOT** apply anything to your wound unless instructed by your doctor.
- **DO NOT** use hair products e.g. spray, gel, cream, dye within the next three months post-surgery.
- Visit a doctor immediately if the following occurs:
  - Persistent and increasing pain at the wound site.
  - Fever of 38°C or higher.
  - Skin around the wound becomes red and swollen.
  - Bleeding or foul-smelling discharge from the wound.
  - Stitches give way.