

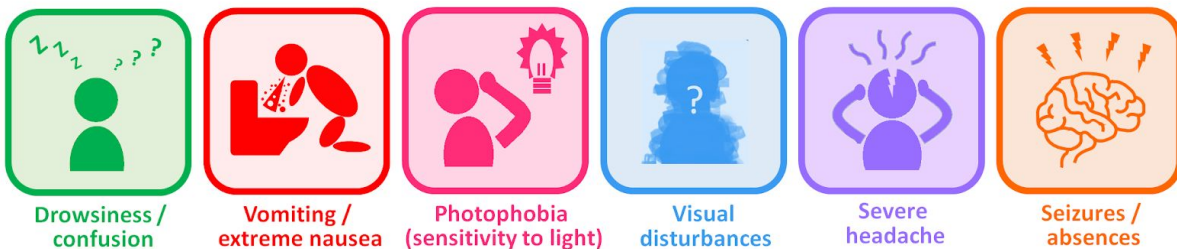
# Hydrocephalus

## Medical Alert for Educational Staff

Shunts and Endoscopic Third Ventriculostomies (ETV) can malfunction for a number of reasons. Acute blockage can be life threatening and all staff should be vigilant and aware of the protocol to follow if they suspect a shunt malfunction. Education staff should ensure they have home, work and mobile phone numbers recorded and readily accessible for parents and carers

### SHUNT MALFUNCTION PROTOCOL

Emergency symptoms or signs to look for may include **some** or all of the following:



If you notice any of the above symptoms

### THINK SHUNT:



**CALL PARENTS**

**Describe the symptoms and ask the parents what they want you to do? Do they want you to dial 999? Do they want to collect their child?**



**CHECK SHUNT CARD**

**If the parents/carers can't be contacted, check the Shunt Alert Card for details of the Neurosurgical Centre and call them for advice.**



**CALL 999**

**Be prepared to dial 999 if asked, or if you can't contact the Neurosurgical Centre or the parents. If the child is losing consciousness, call an ambulance (999) straightaway. Let the parents know which hospital you are being taken to.**

Parents/carers should:

- Contact hospital A&E department
- Speak **directly** to the Neurosurgery Ward Sister or Neurosurgery Registrar.
- In **acute** shunt malfunction, the child needs to be seen at a Neurosurgical unit within **4 hours**.

**Educational staff may have to do the above two steps if they are unable to contact parents/carers.**

**Chronic symptoms** may develop over weeks or even months. The child will need to be reviewed at the Neurosurgery centre,, but not urgently as in acute malfunction.

Symptoms can include:

- Fatigue
- Behaviour changes
- General malaise
- Decline in academic performance
- Visual problems
- Being “not right”

If a child with hydrocephalus has any of these symptoms **do not assume** that someone else has noticed. **Inform parents and carers immediately.**

## Sports Alert

Physical activity can be particularly beneficial to those with hydrocephalus, it can help to “reprogram” the brain through repetition and positive feedback. People with hydrocephalus should have the opportunity to participate in as many sports as they can, there are very few sports that are not advisable. Swimming is a recommended sport, although children with epilepsy may need close supervision.

**Always communicate with the child’s parent/carers before starting a new activity programme.**

- Children can run, jump, trampoline, do forward rolls and use gym apparatus. They may need help with balancing activities but should **not** hang upside down for any length of time as the shunt will not drain in this position.
- If a child has a lumbar peritoneal (LP) shunt, sports involving twisting of the lumbar region may not be advisable, e.g. gymnastics, aerobics, golf or ballet.
- Some children may find sports that require good visual perception and spatial awareness more challenging. This can affect their participation in team sports requiring quick and accurate responses. Close-fielding positions in cricket or rounders may be difficult if the child has visual perception difficulties.
- Care should be taken with **contact sports or certain martial arts**, if a child or young person has a shunt, as well as any activity where a child is grabbed around the neck, as the shunt tubing can become fractured.

- Advice should be sought from a child's neurosurgeon before they play rugby or partake in martial arts.

**If a child is hit hard in the head during any activities (e.g. struck by a ball) then watch out for signs of shunt malfunction.**

## Health and Safety Alert

Children and young people can do most activities in school and on trips but care should be taken to avoid the following situations:

### Magnets

Children with programmable shunts should be supervised closely when using magnets as some shunts are sensitive to them. Anything with an electro-magnetic field must be kept well away from a child's shunt valve (usually in the neck area). If a pupil with a programmable shunt becomes unwell then the **shunt malfunction protocol** should be followed.

### Hydration

It is important that pupils with hydrocephalus do not become dehydrated as it can cause fatigue, headache and behaviour changes. It is recommended that children drink a small glass of water approximately every hour. If a child is noticeably more tired in the afternoons, first check their water intake.

### Visiting the toilet

Children who are drinking water regularly will need to use the toilet more often so an out-of-class pass may be needed. Children with hydrocephalus sometimes do not notice the messages their body gives them for going to the toilet so, in order to avoid 'accidents' in class, prompts to go to the toilet may be needed but should be discreet.

### Out of school

Some pupils may have difficulty finding their way around and it cannot be assumed that a particular route has been memorized and can be properly recalled. Pupils who have difficulty judging speed and distance must be supervised when crossing roads.

### Technology

Pupils should have a safety assessment for handling tools and equipment

If in doubt, seek advice from the child's neurosurgeon or **Shine's** health specialists.



