

# Intracranial Hypertension and the child at school

May 2007

Sometimes called Idiopathic Intracranial Hypertension, Benign Intracranial Hypertension or Pseudotumour Cerebri is a rare condition which occurs in about 1 or 2 in 100,000 people. In children, boys and girls are affected equally, but if the onset is in adult life, the majority of cases are seen in women.



Onset can be sudden or insidious; the cause is not known, but always present are:-

- a) an abnormality in absorption or excess production of cerebrospinal fluid (CSF) leading to a build-up of this fluid in the brain;
- b) increased blood volume in the vessels around the brain;
- c) swelling of the brain

IH is often diagnosed after sight problems lead to the child attending the optician. When the optic discs (back of the eyes) are examined, papilloedema (swelling of the disc) is seen: the child should then be referred urgently to a neurologist.

Other symptoms include headaches (often debilitating, often misdiagnosed as migraine), nausea or vomiting, problems with balance and spatial awareness, dizziness, short term memory loss and behavioural problems. These symptoms are due to an increase in intracranial pressure (ICP = pressure inside the head).

Children with raised ICP may find it difficult to cope with previously managed tasks and may appear to "lose" information previously learnt.

Some children may leak CSF down the nose.

## Treatment

Between 11 - 35% of cases resolve spontaneously.

The first line of treatment is usually by diet (if the child is very overweight) combined with drugs. In some children, two weeks treatment with steroids is sufficient to re-open the venous pathways within the brain so that the IH resolves.

Others need repeated lumbar punctures to remove excess CSF: in children these are done under general anaesthetic or heavy sedation and will mean a few days out of school.

Some people need the CSF diverted by means of a surgically inserted shunt.

In theory, a lumbar peritoneal (LP) shunt is the shunt of choice.

*The LP shunt has a catheter placed into the spine which is connected to another catheter which drains into the abdomen*

In practice, the child may undergo frequent shunt revision and may need a ventricular peritoneal shunt in addition to, or instead of, the LP Shunt.

*The VP shunt has a catheter into the brain connected to a valve which is, in turn, connected to a tube into the abdomen*

It is impossible to predict whether a particular shunt will fail, or how often and for how long the child may be hospitalised as a result.

Even with a fully functioning shunt, some children have severe headaches and may not manage to attend school full time.

**They should be encouraged to attend at the time of day when they feel well and the time gradually increased.**

When in school, there is little that the shunts will prevent them from doing. They can swim, play in the playground, run, jump, do PE. A child with a LP shunt should not do stretching or twisting exercises, nor should he/she somersault, do forward rolls or hang upside down for any period.

If he/she has an injury to the back or abdomen and becomes unwell, damage to the shunt should be considered, although this is very rare.

With a VP shunt, care should be taken not to "grab" the child round the neck. So he/she would be unadvised to take part in judo, rugby scrums etc.

Care should also be taken after a blow to the head or abdomen (eg from a football): if the child does not recover, shunt damage must be considered. Again, this is, fortunately, very rare.

Some children with spatial problems may find it difficult to go outside if the sky is cloudless and they cannot see where it is in relation to themselves. Going into a room with differing ceiling levels or with beams may have the same effect. So may open tread staircases and highly patterned floor coverings.

If a child experiences these problems, their friends should be encouraged to help the child overcome them. If the child realises that they will not hit their head on the sky (prove this by reaching over him/her), or fall through the open treads (a friend could “demonstrate” or measure the gaps), the child will be more confident.

Friendships are very important for children with IH as their natural inclination is often to be “loners”, so every effort must be taken to encourage friendships already made and appropriate new friendships. This is essential if the child misses a lot of school or is only in school for part of the day.

Finally, all children with shunts may be prone to dehydration in the heat (more so than their peers) so will need frequent, even hourly drinks of clear fluid (ie water) but not drinks containing caffeine.

They may also have difficulty in body temperature control, so on very hot days should be encouraged to play in the shade when outside, and sit in a cool part of the room when indoors.

## Further information

For further information on IH, please see information sheet Intracranial Hypertension, or contact the Helpline on 0845 450 7755 to speak to a Specialist Adviser.

## Link magazine

The essential magazine for people with hydrocephalus and spina bifida.

Link is published quarterly (Winter, Spring, Summer and Autumn) and is packed with the latest news, events and issues for individuals, carers and people living with hydrocephalus and spina bifida. To subscribe contact **ASBAH's Helpline 0845 450 7755** email: [helpline@asbah.org](mailto:helpline@asbah.org) or visit our web site: [www.asbah.org](http://www.asbah.org) and click on the publications page.



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