FACT SHEET

Hydrocephalus

What is Hydrocephalus?

Hydrocephalus is sometimes referred to as "water on the brain". A watery fluid, known as Cerebro-Spinal Fluid or CSF, is produced continuously inside each of the four spaces or ventricles inside the brain. The CSF normally flows through narrow pathways from one ventricle to the next, then out across the outside of the brain and down the spinal cord. The CSF is absorbed into the bloodstream and re-circulates. The amount and pressure are normally kept within a fairly narrow range. If the drainage pathways are blocked at any point, the fluid accumulates in the ventricles inside the brain, causing them to swell. This results in compression of the surrounding tissue. In babies and infants, the head will enlarge. In older children and adults, the head size cannot increase as the bones that form the skull are completely joined together.

How is it manifested?

In infants, common signs and symptoms of Hydrocephalus include:

- unusually large head
- rapid increase in the size of the head
- bulging "soft spot" on the top of the head (anterior fontanel)
- vomiting
- sleepiness
- irritability
- seizures
- eyes fixed downward (sunsetting of the eyes)
- developmental delay

In older children and adults, common signs and symptoms of hydrocephalus include:

- headache followed by vomiting
- nausea
- blurred or double vision
- eyes fixed downward (sunsetting of the eyes)
- sluggishness or lack of energy
- slowed development or loss of development
- memory loss
- dementia
- drowsiness
- irritability
- changes in personality

Who is affected?

1 in 1000 births are affected by hydrocephalus.

How is it diagnosed or detected?

In early infancy Hydrocephalus is usually detected by the family or paediatrician as a rapidly-enlarging head. This may or may not be associated with symptoms such as vomiting, failure to thrive, irritability, delay, or loss of developmental milestones. Later in infancy and into childhood, there are rarely rapid changes in head size, but rather symptoms as already described. Depending on the child's age at the time of discovery, various radiographic techniques are available to confirm the diagnosis. In the first six to twelve months of life, the diagnosis can often be made with an ultrasound of the brain.

Additional Resources:

SPINA BIFIDA AND HYDROCEPHALUS ASSOCIATION OF CANADA – www.sbhac.ca
Since its inception in 1981, the Spina Bifida and Hydrocephalus Association of Canada (SBHAC) has been working on behalf of people with spina bifida and/or hydrocephalus and their families. The Association's purpose is simple - to make life better for those born with spina bifida and/or hydrocephalus and for those not yet born.

SPINA BIFIDA AND HYDROCEPHALUS ASSOCIATION OF ONTARIO (SB&H)
– www.sbhao.on.ca
The organization has grown to provide a comprehensive and essential range of services for parents, families, youth and adults with sb/h. Programs are rooted in the principles of self-help and personal support. The SBHAO also serves the broader community which includes: parents who receive pre-natal diagnosis of sb/h; extended family members; all women of child-bearing age about the benefits of folic acid in the prevention of neural tube defects; and a wide spectrum of professionals in the social services, medical, health and education fields.