A CHILD WITH
SPINA BIFIDA AND/OR HYDROCEPHALUS
IN THE CLASSROOM

What can you do as teacher to help children enjoy their education?

INTERNATIONAL FEDERATION for SPINA BIFIDA and HYDROCEPHALUS

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What is Spina Bifida?

Spina Bifida is one of the most common birth defects one can be born with affecting at least 1 in every 1000 live births. It occurs within the first 25 days of pregnancy. The spine fails to close and protect the spinal cord.
Spina Bifida is usually seen with an obvious gap in the skin covering the spine at the lower back, looking like a wound or sac. Both the spine and the nervous system are damaged, in some people more than in others. When the lesion is higher in the spine, the effect will be larger.
Spina Bifida cannot be cured, though medical treatments now enable many people with Spina Bifida to live into old age and have a good quality of life.

Effects of Spina Bifida on the child

- Leg deformities

Depending on where the wound or sac is on the child's back, he/she may be weak in the lower part of the legs with abnormalities in the feet, he/she may be completely unable to walk, or have some ability to walk but with some difficulty or will need support.

- Lack/Limited sense of feeling

Due to the nerve damage in the spinal cord, children with Spina Bifida do not have normal senses of feeling and pain in their body, mostly affecting the legs and feet. It happens that injuries may not be felt, resulting for instance in pressure wounds. And more so, simple burns and cuts may take longer to heal than for children with a normal sense of feeling.

- Bladder and/or bowel incontinence

The child may not be able to control the outflow of his/her urine and stool, because the nerves which control the muscles of the bladder and the bowel are damaged. Most school-going children with incontinence have learnt to manage this by regularly catheterizing. When you catheterize, you empty the bladder at set times with the help of a thin plastic tube.

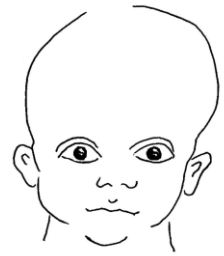
- Hydrocephalus

Children with Spina Bifida can develop Hydrocephalus.

What is Hydrocephalus?

Hydrocephalus means "water on the brain". This condition develops when there is too much fluid in the brain (cerebrospinal fluid (CSF)) causing an increase of pressure within the skull and on the surrounding tissue. As a result, the head of the infant will enlarge. If this pressure is longstanding, the brain will be damaged as well.
Hydrocephalus is treated with surgery, enabling the CSF to be drained from the brain. This can be done either by opening a new pathway within the brain or by placing a device, called a shunt, inside the head which regulates the pressure.

Effects of Hydrocephalus on the child



Having Hydrocephalus affects children in different ways. This usually depends on the extent of the damage to the brain and how soon the child is operated upon. Some of the long term mental difficulties on the child may include:

- Difficulty in concentrating on work or other tasks like reading /school work, especially for a long period of time (a child may benefit from having his or her tasks broken down into simple steps and the use of repetition)
- Difficulty with short term memory (i.e. inability to remember events that happened minutes to days in the past)
- Difficulty in reasoning and applying sound judgement
- Difficulty with motivation and creativeness
- Problems with the muscles and difficulty with moving the hands and feet due to weak flexibility or stiff muscles
- Blindness and deafness (in severe cases)
- The child's head may remain big making it difficult for the child to support his/her head or move around
- The child may be sensitive to loud sounds, bright lights and generally gets scared easily

Note: Not all these complications will occur in one child with Hydrocephalus and some of the complications may improve with time, so there should be a lot of patience and willingness to work with the child.

What can you do as a teacher to help children enjoy their education?

Every teacher contributes to a child's well-being and her/his environment. A child can only enjoy education when the learning environment is suitable for her/him, that is, when the school's outline and schedule are suited to the child's needs.

The attitudes of people around the child - teachers and peers - contribute to the child being able to enjoy education. A positive attitude makes the child feel accepted and integrated in almost all activities at school.

To be able to accomplish this, it is important for the teacher to plan well and work together with the individual families of those children concerned.

The teacher is the key to unlock a child's success!

Adapting the classroom

Once children have reached school, there are other physical access issues to consider like being able to enter the school buildings, and how easy or difficult it is to move around in the teaching and recreation areas. The physical safety and comfort of children should also be a major concern in all schools. As such, learning will be more accessible for all when everyone feels safe and comfortable.

Through some simple and easy solutions you can adapt the classroom to be accessible for children with Spina Bifida and/or Hydrocephalus:

- Attach simple ramps and handrails to overcome the problem of steps
- Fix the door handles at appropriate levels (not too high) so that doors can be opened easily
- Toilet arrangements should be made accessible and safe. Privacy and respect are particularly important for children who may need help with toileting and/or experience bowel and bladder incontinence
- Dining areas should be accessible and have suitable seating
- Classroom seating should enable children to move, when necessary, and to sit with sufficient support. Some children may benefit from a double seat so that they can sit with a friend
- Try to invent simple seating solutions attractive to children, rather than separating them from their place of learning and play. For example, flexible arrangements using mats, cushions, wooden blocks or old car tyres could enable children to work in small groups. Try to limit the use of seats that cannot be moved around

- Fix the blackboards at appropriate heights for children seated on the floor, on seats and in wheelchairs
- Develop play areas that enable children with different impairments to engage in play with others

Teacher attitudes

Children need a caring, accommodating and stimulating learning environment to understand what is being taught and to interact easily and effectively with their peers and teachers. A positive approach to accommodate the students rather than trying to make children adjust to the existing practices will raise education quality for all children – not only those with a disability.

- Listen to your students, be consistent and patient, and respect children's individual learning styles
- Accept that children learn at different rates, and in different ways, and so plan lessons with diversity and difference in mind
- Plan activities according to the learning taking place, rather than according to a fixed interpretation of the schedule
- Cooperate with families and community members to ensure that children with disabilities are in school and that their learning is optimized
- Respond flexibly and creatively both to the individual needs of particular children, and to the needs of all children in the classroom
- Be aware that a proportion of children in all classes will experience some difficulties

Teaching methods

Teachers can help to make classrooms more inclusive by using active, child-centred teaching methods that encourage all children to play and learn together and share responsibilities:

- Reduce the influence of learning difficulties where it's possible
- Prevent the development of difficulties in learning
- Identify those children who are often labelled as 'slow learners', but who in fact have a disability
- Deal with shortcomings in behaviour
- Incorporate the skills needed for everyday life into the schedule. Some children might benefit more from these skills than from academic work
- Make learning fun
- Encourage group work to facilitate participation
- Relate what is learnt at school to daily life and home situations
- Vary the method and pace of teaching in order to maintain children's interest and enable each child to learn at his or her own speed
- Don't give many different instructions on one occasion. Break down information into one task at a time. When the first task is finished, inform the student about the next step
- Improve the quality of relationships in the classroom
- Help other teachers to improve their teaching skills

Communication in the classroom

Good, clear communication is crucial to the success of teaching and learning for all children. Teachers should try to:

- Use simple, clear and consistent language
- Use nonverbal communication
- Be flexible in their communication methods for the benefit of those who have difficulties with spoken language or with hearing
- Create regular communication breaks to accommodate children with short concentration and attention spans
- Ensure that all children can see, hear and listen properly
- Don't give many instructions on one occasion. Break down information into one task at a time. When the first task is finished, inform the student about the next step.
- Be open and allow children to express themselves freely

Regular breaks

Everybody needs a break to refresh the brain; this is the same for children with or without a disability.

For most children who have developmental delay and disabilities, activities need to be structured, yet flexible. This includes openness for regular breaks.

- Taking regular breaks may prove useful for children who have learning, sensory and behaviour difficulties, and for children who experience chronic pain. As many have a short concentration span, breaks enable them to maintain concentration and to hold out, and thus increase their chance of benefiting equally from the teaching.
- Children with mobility and coordination difficulties may also benefit from regular changes of position
- Regular breaks are also needed for children with Spina Bifida so they can empty their bladder by doing catheterization
- Flexible teaching methods should provide the opportunity for children to have the necessary breaks and, perhaps, change to a quieter activity at appropriate points in the day
- Breaks to play and have fun with peers and teachers are very important as well!

In a nutshell, specialists in the area of education for children with disabilities have adopted a more overall view of such children's needs over the years. Body and brain is one unity, a whole. There is now widespread agreement that mainstream learning environments can, and should, include children who may have particular learning needs due to developmental delay or impairment. There is a greater understanding of what is needed to make the mainstreaming of disabled children into regular schools possible and successful, and a growing awareness that the philosophy and methods of what is now called "**inclusive education**" are much like the philosophies and methods we understand as "**quality education**".