

## What other conditions are associated with epilepsy?

### Learning Disabilities

- Children with epilepsy have the same range of intelligence as those without the condition. Many children with epilepsy will achieve academically and socially.
- A child is more likely to have a severe learning disability if they have severe, uncontrolled seizures, in addition to a physical and/or intellectual disability. In some cases, the same brain damage responsible for the seizures, may also be responsible for causing specific learning difficulties.
- Learning difficulties may also be attributable to the seizure disorder, medication side effect, low self esteem or a combination of these factors.
- Phenobarbitone and Primidone may affect concentration span and chronic Dilantin intoxication may lead to intellectual deterioration.

### Difficulties experienced

1. Visual and verbal learning processes – spelling, rote learning, speech and language, perceptual problems, numeracy, problem solving, memory recall and especially reading.

#### Reading skills:

- of children with generalised epilepsy are similar to other children
  - of children with left-sided partial seizures are decreased, especially in boys
  - of boys with epilepsy are not as good as those of girls
  - are decreased in children who are on Phenytoin (Dilantin) for a long time.
2. Motor ability – handwriting may be poor and performance slower.
  3. Psychosocial problems – low self esteem, frustration, anxiety and poor motivation.
  4. Maintaining consistency in learning.
  5. Inappropriate behaviour – attention seeking or withdrawal behaviour.

Further difficulties may be created by unrealistic expectations (above or below the child's abilities by parents, teachers and peers and by socio-economic factors and differing family backgrounds.

- Any child who is having learning difficulties should receive a psychological and educational evaluation to identify areas of strength and weakness. The child and his problems should be individually assessed and a plan developed to meet their needs.
- Many learning difficulties can be overcome, using special education services and close observation and monitoring of the child's educational progress.

### Behaviour

Few families – whether they have a child with epilepsy or not – escape behavioural problems at some stage. Some children's seizures are made worse by stress, emotional upset or boredom, and difficult behaviour can sometimes be caused by some anti-epileptic drugs. Missing out on information during an absence seizure or having to miss an outing because of seizures can leave the child feeling frustrated or confused, leading to behaviour problems.

If your child does develop a problem, try to find out what is causing it if you can. The professionals who are involved with your child can help, don't be afraid to talk to them and ask for help.

#### References:

Little, A. (2002) Epilepsy a resource for teachers. Epilepsy Queensland Teaching children who have epilepsy; Australian Epilepsy Association pamphlet.

## What other conditions are associated with epilepsy?

Children are more likely to have epilepsy if they have certain other conditions – it is usually underlying brain dysfunction or brain damage that causes both conditions. A child who has another condition in addition to epilepsy is more likely to have seizures that are more severe and difficult to control.

Epilepsy has very different effects on different people. While some children have well controlled seizures, others may have several obvious seizures a day in addition to being diagnosed with another medical condition such as autism or cerebral palsy.

These children and their parents have a greater degree of guilt, anger, frustration, sorrow and hard work, the usual message of hope is frustrating and they can feel left out.

A parent of a child with severe disability like their children have special needs. Every parent needs help in this situation. Don't be afraid to ask for it!!

Your doctor or local epilepsy association will have information about resources to help you.

### Intellectual Disabilities

When a child is diagnosed with an intellectual disability, it can have major implications for both the child and the family. The label itself can be associated with negative consequences. It is important for people to realize that with special assistance programs, children with intellectual disabilities can be productive members of the community.

### Autism

Autism is a neurological disorder involving difficulties relating to and communicating with other persons. Approximately 30% of children with autism also have epilepsy, their most common type of seizure is complex partial seizures. Children with autism often have abnormal EEGs, as do children with epilepsy, which may add to the difficulty of diagnosing each of these conditions.

### Cerebral Palsy

Cerebral palsy describes a group of disorders which affect body movement and muscle coordination. The condition is caused by brain damage experienced before, during or shortly after birth. Depending on the region of the brain affected, the condition may cause stiffening of the body and limbs, involuntary movement, difficulty with fine and gross motor skills, and difficulty with perception and sensation. Approximately 33% of children with cerebral palsy also have epilepsy.

### Down Syndrome

Is a disorder caused by a chromosomal abnormality, is usually caused by the presence of an extra chromosome 21 in each cell. The characteristics of a child with Down Syndrome may include a smaller than normal and abnormally shaped head, flattened nose, protruding tongue, upward slanting eyes, short and broad hands, a shorter than average height and intellectual disabilities. Between 5% and 10% of people with Down Syndrome develop epilepsy.

### Fragile X Syndrome

Fragile X syndrome is a genetic disorder that is passed down from the mother's side of the family. Boys are more often affected, although both genders may be. Physical characteristics of those with Fragile X syndrome include a long, narrow face, prominent ears, jaw, chin and forehead, macro-orchidism (enlarged testicles), hyper-extended finger joints, double jointed thumbs and an excessive growth rate into the early childhood years. The individual may experience an intellectual disability, autistic-like behaviours, strabismus (cross-eyed), enlarged head, slanted eyes, poor muscle tone and coordination, as well as many other characteristics. 15 to 20% of people affected with Fragile X syndrome experience seizures.

### Rett Syndrome

Rett Syndrome is a severe neurological disorder which affects females within the first 2 years of life. After approximately 2 years of apparently normal development, the child suffers from the loss of speech and the ability to walk normally, and begins to exhibit autistic-like behaviours (repetitive hand movements such as clapping, body rocking). There is no cure for the disease. Approximately 80% of children who have Rett Syndrome also have epilepsy.

### Tuberous Sclerosis

Tuberous Sclerosis is a genetic disorder that causes benign tumours to form in a variety of organs including the brain, eyes, heart, kidney, skin and lungs. Tuberous Sclerosis is the largest known genetic cause of epilepsy. Seizures are caused by tubers or lesions in the brain. These lesions are small patches of the brain that don't develop normally. The most common type of epilepsy is infantile spasms. Tuberous Sclerosis can also cause autism, behavioural problems, and destruction of the kidneys, lungs, heart or other organs. Up to 80% of individuals with Tuberous Sclerosis will experience seizures at some point in their life.

### Sturge Weber Syndrome

Is an abnormality of blood vessel formation occurring early in the development of the foetal face and brain. Children with this disease are born with a red birthmark (port wine stain) on the forehead and, at times extending over the eye and lower face. In this disease blood vessel formation causes atrophy (shrinking) of the underlying brain, leading to seizures and paralysis of the opposite side of the body. The seizures are usually one sided and may be difficult to control with medication. Children with Sturge Weber may be of normal intelligence but are often progressively handicapped by mental retardation, seizures and paralysis. Surgery to remove the affected portion of the brain is sometimes possible and should be done early in treatment.