



EPILEPSY IN CHILDREN: THE TEACHER'S ROLE

ABOUT THE EPILEPSY FOUNDATION

The Epilepsy Foundation is the national voluntary agency solely dedicated to the welfare of the more than three million people with epilepsy in the U.S. and their families. The organization works to ensure that people with seizures are able to participate in all life experiences; and to prevent, control and cure epilepsy through services, education, advocacy and research. In addition to programs conducted at the national level, people with epilepsy are also served by local Epilepsy Foundation affiliates across the country.

If you have any questions about epilepsy and seizure disorders, living with epilepsy, or helping a friend or family member who has epilepsy, please visit us on the Web at www.EpilepsyFoundation.org or call

800-332-1000. Our Web site has information about the disorder, offers opportunities to network with others touched by epilepsy through our eCommunities forums and Web events. You can also subscribe to our bi-monthly magazine *EpilepsyUSA*. Each issue contains exciting developments for people affected by seizure disorders—new treatments and medicines, ground-breaking research, safety tips, personal stories, advice for parents and much, much more—all delivered right to your door.



FACTS FOR THOSE WHO CARE FOR CHILDREN

Over three hundred thousand American children and adolescents have epilepsy, sometimes called seizure disorders.

Epilepsy is a medical term referring to a disorder of the brain characterized by seizures that recur. There are many types of seizures, including:

- Convulsions or sudden falls.
- Brief but frequent episodes of blank staring.
- Distortions of the child's environment which are invisible to everyone else.
- Dazed, almost trance-like behavior during which the child's consciousness is suspended and his memory does not function.

Although seizures can vary so much in how they look or feel, they are all caused by the same thing—a temporary change in the way brain cells control awareness and body movements.

Many physical injuries or illnesses can cause a single seizure in a child. However, a single seizure is not epilepsy. Epilepsy means recurrent seizures.

Today, thanks to regular treatment with medicines that prevent seizures, many children with epilepsy have these episodes infrequently or not at all and are able to participate fully in school activities.

However, children who are still having seizures may run into problems at school, problems like isolation from other students, low self-esteem and a lower level of achievement.

Fortunately, many of these problems can be overcome or prevented through appropriate management by an informed school staff, particularly the classroom teacher and the school nurse.

Children with epilepsy
have the right to
equal access to
education and child
care services.



SEIZURE MANAGEMENT

As noted earlier, epilepsy produces seizures that vary dramatically in appearance, effect on the child, and the kind of management they require.

Absence (previously called petit mal) seizures produce momentary loss of awareness, sometimes accompanied by movements of the face, blinking, or arm movements. These may be frequent. These events differ from day-dreaming in that they interrupt ongoing activity. The child immediately returns to full awareness after one of these episodes.

Management: Make sure the child did not miss any key parts of the lesson.

Simple partial seizures are limited to one area of the brain. Consciousness is not lost, though the child may not be able to control body movements. Senses may be distorted during the seizure so that the child sees, hears, smells, or experiences feelings that are not real.

Management: If the child seems confused or frightened, comfort and reassure.

Complex partial seizures (formerly called psychomotor or temporal lobe epilepsy) produce a variety of automatic behavior in which consciousness is lost or clouded. The child may get up and walk around, be unre-

sponsive to spoken direction or respond inappropriately, may fling off restraints, may mutter, or tap a desk in an aimless, undirected way. He or she may appear to be sleepwalking or drugged. Some children experience fear as part of the seizure and may try to leave the room.

This type of seizure usually lasts only a minute or two, but feelings of confusion afterwards may be prolonged. The child will not remember what he did during the seizure. His actions will not have been under his control.

Management: If a child has an episode of this type and appears dazed and oblivious to his surroundings, the teacher can take his arm gently (if he is away from his seat), speak to him calmly, and guide him carefully back to his seat. Do not grab hold or speak loudly. If the child resists, just make sure he is not in any jeopardy. If the child is seated, ignore the automatic behavior but have him stay in the classroom until full awareness returns. Help re-orient the child if he seems confused afterwards.

Generalized tonic-clonic (previously called grand mal) seizures are convulsions in which the body stiffens and/or jerks; the child may cry out, fall unconscious and then continue massive jerking movements. Bladder and bowel control may be lost. Seizures usually last a minute or two. Breathing is shallow or even stops briefly - but resumes as jerking movements end. The child may be



confused, weary, or belligerent as consciousness returns. *Management: First aid for a convulsive seizure protects the child from injury while the seizure runs its course. The seizure itself triggers mechanisms in the brain to bring it safely to an end. When this type of seizure happens, the teacher should:*

- *Keep calm. Reassure the other children that the child will be fine in a minute.*
- *Ease the child gently to the floor and clear the area around her of anything that could hurt her.*
- *Put something flat and soft (like a folded jacket) under her head so it will not bang against the floor as her body jerks.*
- *Turn her gently onto one side. This keeps her airway clear and allows any fluid in her mouth to drain harmlessly away. DON'T try to force her mouth open. DON'T try to hold on to her tongue. DON'T put anything in her mouth. DON'T restrain her movements.*
- *When the jerking movements stop, let the child rest till full consciousness returns.*
- *Breathing may have been shallow during the seizure, and may even have stopped briefly. This can give the child's lips or skin a bluish tinge, which corrects naturally as the seizure ends. In the unlikely event that breathing does not begin again, check the child's airway for*

any obstruction. It is rarely necessary to give artificial respiration.

Some children recover quickly after this type of seizure; others need more time. A short period of rest, depending on the child's alertness following the seizure, is usually advised.

However, if the child is able to remain in the classroom afterwards, he or she should be encouraged to do so. Staying in the classroom (or returning to it as soon as possible) allows for continued participation in classroom activity and is psychologically less difficult for the child. Of course, if he has lost bladder or bowel control, he should be allowed to go to the rest room first. A change of clothes kept in the health room or the principal's office will reduce embarrassment when this happens.

If a child has frequent seizures, handling them can become routine once teacher and classmates learn what to expect. One or two of the children can be assigned to help while the others get on with their work.

Other generalized seizures (akinetic, atonic, myoclonic) produce sudden changes in muscle tone that may cause the child to fall abruptly, or jerk the whole body. A child with this kind of seizure may have to wear a helmet to protect the head. These seizures are more difficult to



control than some of the others and, in some cases, may be accompanied by some degree of developmental delay.

Management: The child should be helped up, examined for injury from the force of the fall, reassured, and allowed to sit quietly till fully recovered.

EMERGENCY MANAGEMENT

The average convulsive seizure in a child who has epilepsy is not a medical emergency. It usually resolves without problems. It does not require immediate medical attention unless:

- A child has a seizure and there is no known history of epilepsy. Some other medical problem might be causing the seizure and emergency treatment of that problem might be required.
- Consciousness does not return after the seizure ends.
- A second seizure begins shortly after the first one without regaining consciousness in between.
- The seizure shows no sign of ending after 5 minutes.

If a child has a history of prolonged seizures, the physician may prescribe so-called “rescue medicine” in a form that can be used at school by a trained adult to bring the seizure to an end.

If a child hits his head with force, either during the seizure or just before it began, one or more of the following signs call for immediate medical attention:

- Difficulty in rousing after twenty minutes
- Vomiting
- Complaints of difficulty with vision
- Persistent headache after a short rest period
- Unconsciousness with failure to respond
- Dilation of the pupils of the eye, or if the pupils are unequal in size. If a seizure occurs while swimming and there is any possibility that the child has ingested large amounts of water, he should be checked by a doctor as soon as possible even if he seems to be fully recovered.

HELPING CHILDREN UNDERSTAND

When an episode of automatic behavior or a convulsion occurs in the classroom, the whole class is affected.

The strangeness of unusual behavior or the dramatic suddenness of a convulsion may frighten the other children.

They may be afraid for the welfare of the affected child. They are likely to be upset at the sight of apparently serious illness in someone who had seemed as healthy as



they only a few moments before, and they may therefore feel vulnerable themselves.

When this happens, children need factual information suitable to their age. They need reassurance that what has happened poses no danger to them or to the child who had the seizure.

Unless handled appropriately, the fear generated by the event may be translated into fear of the child who had the seizure. This kind of progression can cause the child to be shunned, teased, or both.

When the teacher or the school nurse explains to the other children what has happened, answers their questions, and gives them a chance to say how they feel about what occurred, the social impact of the seizure can be reduced. This discussion should take place as soon as possible after the seizure.

The youngster who had the seizure should be told such a discussion is planned and be allowed to decide whether he wants to be included in it. If the child chooses not to be present when epilepsy is discussed or if it is not possible for him to be there, he should be told afterwards what was said.

During the classroom discussion, the teacher or the school nurse should first describe what caused the seizure

and then invite the children to ask questions and express their feelings about what happened.

Key points to help children understand:

- What happened to the child is called a seizure.
- It happened because for just a minute or two the child's brain did not work properly and sent mixed up messages to the rest of his body. Now that the seizure is over, his brain and his body are working properly again.
- Having seizures is part of a health condition called epilepsy, which some children have.
- Epilepsy is not a disease and it can't be caught from other children.
- Children who have this condition take medicine to prevent seizures, but sometimes one happens anyway.
- Seizures stop by themselves, but it's good to know first aid steps that will keep a child safe while the seizure's happening.

If the seizure was a convulsion the teacher should emphasize that the child was not in any danger, even though he looked as if he was. If the seizure produced unusual behavior, it should be emphasized that what happened does not mean the child is "crazy."

If the child with epilepsy is present, he or she can be brought into the discussion with questions like:

- (To the child): Can you tell us what it feels like when you have a seizure?
- (To the class): Can anyone tell us how they think they would feel if they had a seizure? What would they want the other children to do?
- (To everyone): What's the most important part of helping someone who's having a seizure? (Answer: Keep him safe and be a friend when it's over.)

Even if the child cannot be present during the discussion, similar points can be made to encourage understanding and acceptance when he or she returns.

SEIZURE PREVENTION

Many children with epilepsy gain complete control of their seizures with regular use of seizure preventing medicines. These medicines may have to be taken during the school day.

Successful treatment depends on keeping a steady level of medication in the child's blood at all times, so it is important that doses not be missed or given late.

In many schools the school nurse will be the staff member who will look after the medicine and give it to

the child each day. The time when it is given, and the amount, will be arranged with the parents according to the doctor's instructions.

In some schools, however, the principal or the home room teacher will have this responsibility.

Whatever the arrangement, permission for the child to get the medication on a prearranged schedule should be freely given and every effort should be made to help him or her get the medicine on time.

State or local regulations may require an adult to give medicine at school. However, the child should have the responsibility of knowing when it should be taken and making sure that he's in the right place to get it.

Although the side effects of antiepileptic drugs are generally mild, unusual fatigue, lethargy, clumsiness, nausea or other signs of ill health in the child with epilepsy should be reported promptly to the school nurse and to the parents.

SEIZURE RECOGNITION

When the only symptoms of a seizure disorder are frequent episodes of blank staring and unresponsiveness, the teacher is often the first adult to notice them.

Many children have been diagnosed and successfully treated because of an alert teacher.

The following are the most common signs of possible seizure activity:

- Brief staring spells (5-10 seconds) in which the child does not respond to direct attempts to gain his attention
- Periods of confusion
- Head dropping
- Sudden loss of muscle tone
- Episodes of rapid blinking, or of the eyes rolling upwards
- Inappropriate movements of the mouth or face, accompanied by a blank expression
- Aimless, dazed behavior, including walking or repetitive movements that seem inappropriate to the environment
- Involuntary jerking of an arm or leg

Observing a single instance of any of these actions is no proof a child has a seizure disorder. It could be caused by other things. But if the teacher sees a pattern of this behavior, it should be followed up in

whatever manner the school requires when student health is at issue.

Discussion with the school nurse or principal, followed by a brief report to the parents, is one way to proceed.

Only a doctor can diagnose epilepsy, of course, so the teacher's role should be to tell the parents what has been observed and suggest that they may want to mention these episodes to the child's doctor since they seem to be interfering with his or her performance at school. Leave it at that. Don't offer a diagnosis.

If a teacher observes the seizure, a written report of the sequence of events can be very helpful to the doctor.

COMMUNICATION

When good communications exist between parents and teachers, the teacher can feel comfortable asking questions that will help him do his best for the child. These questions may include:

- What kind of seizure does the child have?
- What do they look like?
- How often does he or she have them?



- How long do they usually last?
- Is medicine going to be given or taken at school?
- What arrangements have been made for that?
- What has been the child's previous experience with epilepsy at school?

If the child is having very infrequent seizures, or has complete seizure control, this kind of basic information may be all that is needed.

However, if the seizures are frequent, the teacher will want to discuss with the parents how they should be handled, how he or she plans to explain the condition to the other children, whether there are any learning disabilities, and whether the child has an understanding of his disorder and would feel comfortable answering questions that the other children might have. If the child is old enough and the parents agree, he or she could be part of the discussion.

SCHOOL PERFORMANCE

Most children with epilepsy test in the average I.Q. range and will keep up with the class. However, research studies have shown that a number of youngsters with this condition achieve at a lower level than their test scores would predict.

There may be several reasons why this happens:

- The medicines that prevent seizures may be affecting the child's ability to learn. Phenobarbital sometimes has this effect; certain other drugs do as well. If the child seems excessively sleepy and lacks energy, the parents should be told. A change in medicine or the times it is taken might help.
- Unrecognized seizure activity in the brain may be interfering with attention. Difficulty paying attention is a frequent problem for children with epilepsy. Anxiety over the possibility of having a seizure may be affecting attention as well.
- There may be some underlying condition in the brain that is interfering with learning, memory, or the way the brain handles information. These problems may show up in math, reading, and tasks involving memory.
- A child may be showing the educational effects of prolonged periods away from school for medical tests and treatment. He or she may also have missed important aspects of previous instruction because of an undiagnosed seizure disorder.

Missed schooling may be the easiest problem to remedy, since it can be approached through tutoring



and remedial work. The other problems are more subtle and may require special techniques to identify and overcome.

For example, testing by a neuropsychologist who is knowledgeable about epilepsy can help determine if the difficulties a child is having are due to some specific learning disability. Once identified, special education techniques may help the youngster overcome the problem.

It is important to remember that these are problems which only occur in some children with epilepsy. Many children with epilepsy do well in school without any of these difficulties.

BEHAVIOR

The average child with epilepsy will not have behavior problems and will respond to appropriate discipline in the classroom in the same manner as all the other children.

When children with epilepsy do have behavior problems, these may be caused by any one of several different factors.

The seizure activity itself, the medication, the child's own anxiety and low self esteem, or parental

overprotection or overindulgence are all factors that may produce problem behavior.

Occasionally a child may also have severe behavior problems that are quite separate from the seizure disorder itself, but which may result from the same brain damage that is producing the seizures.

Identifying the source of behavior problems in an individual child is the first step in dealing effectively with them. Depending on the severity of the behavior, the child's parents, physician and other professionals may be involved in this process.

AVOIDING OVERPROTECTION

A major problem for children with epilepsy are the well meaning efforts of adults to protect them from harm.

Parents may limit a child's participation in the usual childhood activities because of fear that a seizure will occur during the activity, or that exertion will somehow trigger a seizure.

This is unfortunate for several reasons. First, vigorous physical activity is not generally associated with a greater number of seizures; in fact, studies suggest fewer seizures will occur when the average child is active.



Secondly, the child is excluded from experiences that would help her develop social skills and self confidence. This sense of being different, of being unable to join what others are doing, encourages dependence in the child and keeps her socially immature.

The school experience offers the child with epilepsy a unique opportunity to break this pattern of overprotection and isolation. Wherever possible, he or she should be encouraged to take part in all school activities.

Careful supervision is needed when a child who is still having some seizures takes swimming or gym, but with appropriate safeguards these activities can be safely undertaken.

SUMMARY

When a child has epilepsy, an informed teacher is essential to that child's educational and social development.

- The teacher's understanding of the condition will enable him or her to handle a seizure calmly and effectively, and to be alert to signs of seizure activity that may have gone unnoticed by others.
- The teacher's observation and reporting of any changes in the child will help parents to work more

effectively with the child's physician to control the seizures.

- The teacher's awareness of the educational problems the child may face will encourage early intervention if it is needed.
- Most importantly, a caring, well informed teacher can help prevent the damaging social impact of epilepsy in childhood and help the affected child make the most of his or her academic potential.



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