

Neurology and epilepsy support groups assignment



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I chose to do my research on epilepsy. I have some knowledge of this sickness and I have found some interesting facts and more information that will help us as we prepare ourselves to become future educators. As we all know we will be faced with many students, and we must prepare ourselves with the terms, facts and the many learning abilities to fit the needs of the children for their future. The more I continue to prepare myself, I am getting a clearer understanding how children learn and it will be up to me to provide learning opportunities as a teacher.

I understand how each student differs in learning and I will be able to create instructional opportunities for diverse learners. Throughout my paper you will be able to understand what epilepsy is and what happens to cause a seizure. I will explain the difference between epilepsy and a seizure. I will list facts from various researchers and the treatment provided. Epilepsy is a brain disorder that causes people to have recurring seizures. The seizures happen when clusters of nerve cells, or neurons, in the brain send out the wrong signals.

People may have strange sensations and emotions or behave strangely. They may have violent muscle spasms or lose consciousness. Epilepsy has many possible causes, including illness, brain injury and abnormal brain development. In many cases, the cause is unknown. Doctors use brain scans and other tests to diagnose epilepsy. It is important to start treatment right away. There is no cure for epilepsy, but medicines can control seizures for most people. When medicines are not working well, surgery or implanted devices such as vagus nerve stimulators may help.

Special diets can help some children with epilepsy. According to www.familydoctor.org epilepsy is not a mental illness, and it is not a sign of low intelligence. It is not contagious. Between seizures, a person with epilepsy is no different from anyone else. The National Institute of Neurological Disorder believes that epilepsy is a disorder with many possible causes. Anything that disturbs the normal pattern of neuron activity – from illness to brain damage to abnormal brain development – can lead to seizures.

Epilepsy may develop because of an abnormality in brain wiring, an imbalance of nerve signaling chemicals called neurotransmitters, or some combination of these factors. Having a seizure does not necessarily mean that a person has epilepsy. Only when a person has had two or more seizures is he or she considered to have epilepsy. More than two million people in the United States have been diagnosed with epilepsy or have experienced a seizure. During a seizure, a person may have movement or feelings he or she cannot control. A person may cry, fall unconscious, or twitch involuntarily.

A person has epilepsy when he or she has seizures more than once. Sometimes people use the term seizure to indicate epilepsy. But one seizure is just a seizure, multiple seizures are known as epilepsy. Epilepsy is one of the least understood diseases. The brain is the control center of the body. The brain has two main parts; the right hemisphere which controls the left side of the body and the left hemisphere which controls the right side of the body. Certain areas of the brain control different areas of the body; such as vision, memory, movement, and sensation.

Nerves are made of small cells called neurons. In order for the brain to feel, think and give orders to the muscles, the neurons must give off electrical and chemical signals to each other. Seizures happen because of abnormal electrical activity in the brain. Depending on the area affected, a person having a seizure will experience different symptoms. For example if an area controlling a muscle is affected, the muscle may become still or jerk uncontrollably. Seizure is the term used to describe a symptom and epilepsy is the term used to describe the disease.

About half of all seizures have no known cause, and the other half are linked to a disease or injury of the brain. According to research done by The National Institute of Neurological Disorder they believe that during development and the first few years of childhood, the brain undergoes a lot of growth. During this growth the brain is at danger of certain disease due to infections, poor nutrition, and poor oxygen. Some of these diseases are associated with epilepsy. The neurons of the brain develop into complex webs of wire.

Defects in the wiring during brain development could lead to epilepsy and so can a head injury due to an accident or a stroke. The brain repairs itself making new wiring. If the new wiring is abnormal it could cause seizures. Diseases of the brain such as hydrocephalus and meningitis could cause epilepsy. Poisoning of the brain like lead and carbon monoxide poisoning could lead to seizures. Some types of epilepsy run in families suggesting hereditary causes. There are different types of seizures, Partial seizures are seizures that limit themselves to one part of the brain.

In partial seizures, a person may experience sudden feelings of joy or sadness or sudden sensations of smell, hearing, or vision. Another type of a partial seizure is called complex partial seizure. In this type of seizure a person may display abnormal repetitive behaviors such as blinking, moving in a circle, striking out at walls or moving an arm or leg without being able to control the movement. Seizures that spread to the rest of the brain are called generalized seizures. These seizures may cause a person to: Lose consciousness Fall Have muscle spasms Have jerking muscles all over the body

Stare into space, losing contact with reality for a few seconds Generalized seizures are the ones I have heard about and have current knowledge of it was good that I had the opportunity to research the topic Epilepsy because I have read a lot of interesting things about seizures and epilepsy. There are many ways to diagnose epilepsy. Doctors take medical history, do blood test, and use a variety of other medical tests as well to determine whether a person has epilepsy. A test commonly used is called an electroencephalogram or EEG. This test records brain waves.

Electrodes are placed on the scalp and brain waves are measured. This test is painless and can be done while a person is asleep. Doctors may also request a brain scan in order to see structures inside the brain. This can be done by MRI, CT, and PET scans. This allows doctors to see structures such as tumors, or cysts. More than eighty percent of patients with epilepsy can have their seizures controlled with medication. After diagnosing the type of seizure doctors recommend a drug that's available to control the seizure.

This depends on the type of seizure, the patient's age and medical condition.
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There are some side effects associated with anti epilepsy drugs as any other drug on the market. These side effects are minor and include fatigue, weight gain, dizziness and depression. In some cases of childhood seizures a special diet that is rich in fat and low in sugar can help reduce the frequency of seizures. Once epilepsy is diagnosed, it is important to begin treatment as soon as possible. For about 80 percent of those diagnosed with epilepsy, seizures can be controlled with modern medicines and surgical techniques. Some antiepileptic drugs can interfere with the effectiveness of oral contraceptives.

In 1997, the FDA approved the vagus nerve stimulator for use in people with seizures that are not well-controlled by medication. In many cases researchers believe that epilepsy can be prevented by wearing seatbelts and bicycle helmets, putting children in car seats, and other measures that prevent head injury and other trauma. Prescribing medication after first or second seizures also may help prevent epilepsy in some cases. Good prenatal care, including treatment of high blood pressure and infections during pregnancy, can prevent brain damage in the developing baby that may lead to epilepsy and other neurological problems later.

Treating cardiovascular disease, high blood pressure, infections, and other disorders that can affect the brain during adulthood and aging also may prevent many cases of epilepsy. Finally, identifying the genes for many neurological disorders can provide opportunities for genetic screening and prenatal diagnosis that may ultimately prevent many cases of epilepsy. Most people with epilepsy lead outwardly normal lives. Approximately 80 percent

can be significantly helped by modern therapies, and some may go months or years between seizures.

However, the condition can and does affect daily life for people with epilepsy, their family, and their friends. People with severe seizures that resist treatment have, on average, a shorter life expectancy and an increased risk of cognitive impairment, particularly if the seizures developed in early childhood. These impairments may be related to the underlying conditions that cause epilepsy or to epilepsy treatment rather than the epilepsy itself, according to [www. webMD](http://www.webMD). People with epilepsy, especially children tend to develop behavioral and emotional problems.

Sometimes these problems are caused by embarrassment or frustration associated with epilepsy. Other problems may result from bullying, teasing, or avoidance in school and other social settings. In children, these problems can be minimized if parents encourage a positive outlook and independence, do not reward negative behavior with unusual amounts of attention, and try to stay attuned to their child's needs and feelings. Families must learn to accept and live with the seizures without blaming or resenting the affected person. Counseling services can help families cope with epilepsy in a positive manner.

Epilepsy support groups also can help by providing a way for people with epilepsy and their family members to share their experiences, frustrations, and tips for coping with the disorder. Author David W. Dunn department of psychiatry and department of neurology, Indiana university School of Medicine, Indianapolis, Indiana states that children with epilepsy are at

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increased risk of behavioral and emotional problems compared with both children from the general population and children with other chronic illnesses not involving the central nervous system.

Children with epilepsy have an increased risk of poor self-esteem, depression, and suicide. These problems may be a reaction to a lack of understanding or discomfort about epilepsy that may result in cruelty or avoidance by other people. Many people with epilepsy also live with an ever-present fear that they will have another seizure. Going to school can be stressful for children with epilepsy. They may worry about having a seizure in class or how other students will react. Parents are also anxious.

They often worry that their child's teacher may not know how to handle an epileptic seizure, or that their child may be treated unfairly because of epilepsy. " Parents of children with epilepsy need to get educated about the condition," says William R. Turk, MD, Chief of the Neurology Division at the Nemours Children's' Clinic in Jacksonville, Florida. " They need to learn the facts. By sharing these facts with other people — and dispelling the fears — parents can help shape a future for their child with fewer obstacles and limitations. In a school setting according to the experts, the best way to prevent misunderstandings about epilepsy at school is to step in early. At the beginning of the year, go talk to your child's teacher and school nurse. Explain that your child has epilepsy. You may want to take some brochures about the condition. Getting the right information to the right people at school early can make a big difference in your child's school experience. As I was searching for information I came across an article entitled Epilepsy in

Primary School Children. The research group was L.

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Law, R. Khalpey, K. Govender, and Y. Wang from Rhodes University. During their research they interviewed sixty children, between the ages five and twelve. The children teachers were asked to complete a questionnaire. This research was analyzed by the Statistics Department at Rhodes University and the group. The results showed that fifty three percent of the children interviewed said that they knew what epilepsy is, seventy five percent of them described it as fainting. Twenty five percent of all the children interviewed were found to suffer from epilepsy.

Eighty percent of those with epilepsy felt that their classmates' reaction after a seizure was one of fear. Sixty percent felt that their classmates were often embarrassed of them after an attack. One hundred percent of the children responded that they do not understand why they have seizures. One hundred percent of teachers defined epilepsy in terms of its symptoms, and 60 percent of the teachers said that they would administer First Aid to a child having a seizure, while thirty three percent would stick a finger or a pencil into the child's mouth.

I found this information interesting, and felt that it is a need for people to learn about epilepsy. I believe that teachers, administrators, and students in school corporations should learn about epilepsy and any other sickness as well. I say this because it can affect them as well, and if they at least know one thing or at least one symptom about it. This way when they come across a person having a seizure they will be able to tell what it is and some may know what to do about it.

I have learned through my research, accommodations I will use in the classroom when I become a future educator in I have students with epilepsy; Stay calm Don't move the person to another place Don't try to keep the person from moving or shaking Take away items that could cause injury Gently turn the person on his or her side so any fluid in the mouth can safely come out Never place objects in a person's mouth Observe the person until he or she has completely recovered. I think it would be good to know and use these accommodations for the safety of the child.

Research has led to many advances in understanding and treating epilepsy, there are many unanswered questions about how and why seizures develop, how they can best be treated or prevented, and how they influence other brain activity and brain development. Researchers, many of whom are supported by the National Institute of Neurological Disorders and Stroke (NINDS), are studying all of these questions. They also are working to identify and test new drugs and other treatments for epilepsy and to learn how those treatments affect brain activity and development.

The NINDS's Anticonvulsant Screening Program (ASP) studies potential new therapies with the goal of enhancing treatment for patients with epilepsy. Since it began in 1975, more than 390 public-private partnerships have been created. These partnerships have resulted in state-of-the-art evaluations of more than 25, 000 compounds for their potential as antiepileptic drugs. This government-sponsored effort has contributed to the development of five drugs that are now approved for use in the United States.

It has also aided in the discovery and profiling of six new compounds currently in various stages of clinical development. Besides testing for safer, more efficacious therapies, the Program is developing and validating new models that may one day find therapies that intervene in the disease process itself as well as models of resistant or refractory epilepsy. In conclusion I have explained what epilepsy is, the symptoms and differences between a seizure and epilepsy. How epilepsy is diagnosed, the treatment available to treat it and some helpful accommodations and the affects it has on children.

I also have expressed the need to increase the levels of awareness and knowledge of epilepsy among children, teachers and administrators. It is often found that those with epilepsy are more likely to suffer from the attitudes of others, than from the disease itself. It is only when everyone, children, family and the public realize that epilepsy is not something to be afraid of, but that there can be a meaningful change for it. Many people with epilepsy lead productive and outwardly normal lives. Medical and research advances in the past two decades have led to a better understanding of epilepsy and seizures than ever before.

Advanced brain scans and other techniques allow greater accuracy in diagnosing epilepsy and determining when a patient may be helped by surgery. More than 20 different medications and a variety of surgical techniques are now available and provide good control of seizures for most people with epilepsy. Research on the underlying causes of epilepsy, including identification of genes for some forms of epilepsy has led to a greatly improved understanding of epilepsy that may lead to more effective

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treatments or even new ways of preventing epilepsy in the future according to the website www.cure.com.