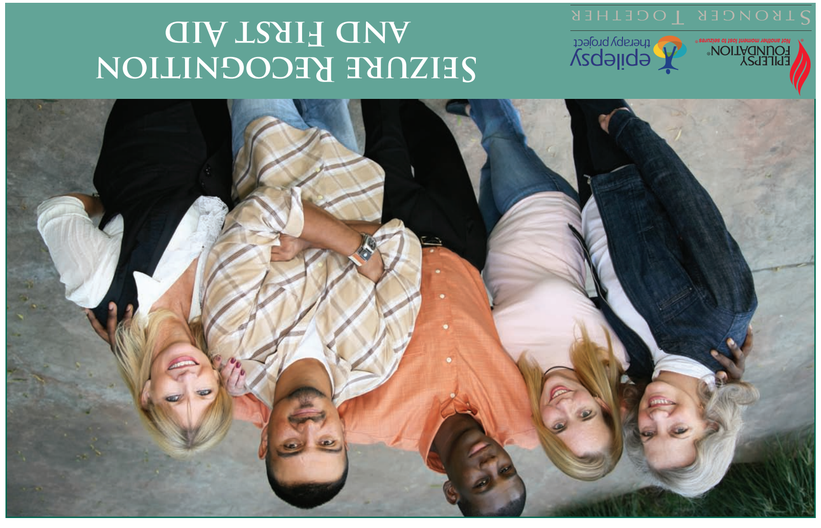
Seizure Recognition and First Aid



We have almost three million reasons for writing this pamphlet for you. That's how many Americans have epilepsy (seizure disorders).

You may see several of them in a day, and not even know it. People with epilepsy look just like everyone else . . . except when they have a seizure.

Even then you might not recognize what you were seeing.

You might not know that the actions or movements taking place were being caused by a temporary medical condition. That lack of knowledge might lead you to take actions that you, and the person with epilepsy, might later regret.

If you are someone who deals frequently with the public, and if you have not been taught first aid for seizures, this short summary should help you recognize a seizure when it happens, and know how to give basic first aid . . . if it's needed.

What is Epilepsy?

Epilepsy is a common neurological condition. It is the general term for more than 20 different types of seizure disorders produced by brief, temporary changes in the normal functioning of the brain's electrical system.

These brief malfunctions mean that more than the usual amount of electrical energy passes between cells. The sudden overload may stay in just one small area of the brain, or it may swamp the whole system.

Of course, you can't see what's happening inside a person's brain. But you can see the unusual bodily movements, the effects on consciousness, and the changed behavior that the malfunctioning areas are producing. These changes are what we call seizures.

A single seizure may be caused by a number of health conditions. In addition to these, about one person in 100 has recurring seizures, known as epilepsy. Two out of four new cases begin in childhood. Epilepsy in adults may be the result of head injury—often from auto accidents—or may date from their childhood years. Epilepsy is not contagious at any age.

Recognition of seizure disorders and knowledge of first aid is important because it is very easy to mistake some seizures for some other condition.

A generalized tonic clonic seizure is a convulsion. But it may look like a heart attack, and CPR techniques may be used when they are not necessary.

A period of automatic behavior may be interpreted as being drunk or high on illegal drugs. The fact that a person undergoing this kind of seizure may have phenobarbital (an antiepileptic drug) with him adds to the confusion.

Types of Seizures

Seizure disorders take several forms, depending on where in the brain the malfunction takes place and how much of the total brain area is involved.

Generalized tonic clonic seizures are the ones which most people generally think of when they hear the word "epilepsy."

In this type of seizure the person undergoes convulsions which usually last from two to five minutes, with complete loss of consciousness and muscle spasms.

Absence seizures take the form of a blank stare lasting only a few seconds.

Partial seizures produce involuntary movements of arms or legs, distorted sensations, or a period of automatic movement. There are two types of partial seizures - simple and complex. During simple partial seizures a person is completely aware and consciousness during the seizure. During complex partial seizures consciousness is altered and a person will typically act confused, disoriented or dazed.

Since these seizure disorders are so different in their effects, they require different kinds of action from the public. Some require no action at all. The chart on the back of this pamphlet describes seizures in detail, and how to handle each type. It's been produced in this form to encourage posting on staff bulletin boards or other places where it can easily be seen by people who meet the public.

First Aid for Seizures in Special Circumstances

Although the chart in this pamphlet gives information on basic first aid for a generalized tonic clonic (convulsive) seizure, there are some special circumstances in which additional steps should be taken, regardless of the type of seizure.

A seizure in water

If a seizure occurs in water, the person should be supported in the water with the head tilted so his face and head stay above the surface. He should be removed from the water as quickly as possible with the head in this position. Once on dry land, he should be examined and, if he is not breathing, artificial respiration should be begun at once. Anyone who has a seizure in water should be taken to an emergency room for a careful medical checkup, even if he appears to be fully recovered afterwards. Heart or lung damage from ingestion of water is a possible hazard in such cases. Additional safety can be provided by wearing a flotation device.

A seizure in an airplane

If the plane is not filled, and if the seat arms can be folded up, passengers to the left and/or right of the affected person may be reassigned to other seats, so that the person having the seizure can be helped to lie across two or more seats with head and body turned on one side.

Once consciousness has fully returned, the person can be helped into a resting position in a single reclining seat.

If there are no empty seats, the seat in which the person is sitting can be reclined, and, once the rigidity phase has passed, he can be turned gently while in the seat so that he is leaning towards one side.

Pillows or blankets can be arranged so that the head doesn't hit unpadded areas of the plane. However, care should be taken that the angle at which the person is sitting is such that his airway stays clear and breathing is unobstructed.

A seizure on a bus

Ease the person across a double or triple seat. Turn him on his side, and follow the same steps as indicated above. If he wishes to do so, there is no reason why a person who has fully recovered from a seizure cannot stay on the bus until he arrives at his destination.

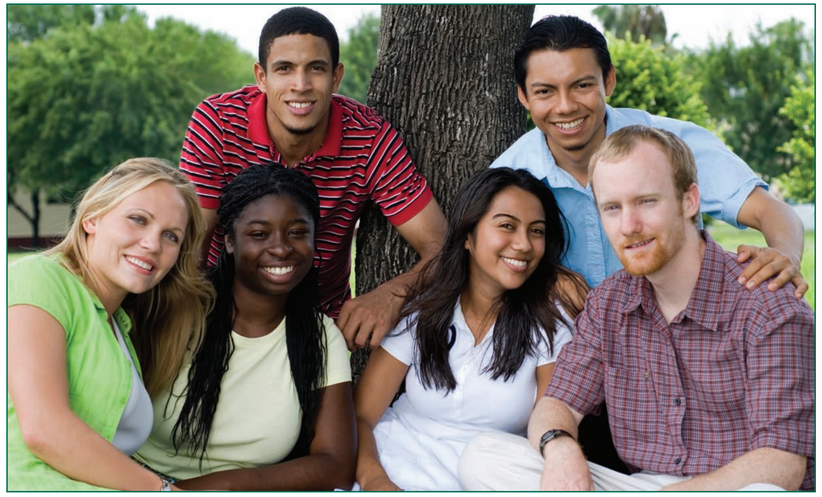
Is an Emergency Room Visit Needed?

An uncomplicated convulsive seizure in someone who has epilepsy is not a medical emergency, even though it looks like one. It stops naturally after a few minutes without ill effects. The average person is able to continue about his business after a rest period, and may need only limited assistance, or no assistance at all, in getting home.

However, occasionally a seizure will fail to stop naturally and as noted earlier, there are several medical conditions other than epilepsy that can cause seizures. These include:

- diabetes
- uncontrolled blood sugars
- brain infections
- heat exhaustion
- rapid development of high fever in young children
- high blood pressure in pregnancy
- head injury

When seizures are continuous or any of these conditions exist, immediate medical attention is necessary.



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This pamphlet is intended to provide basic information about epilepsy to the general public. It is not intended to, nor does it, constitute medical advice. Readers are warned against changing medical schedules or life activities based on the information it contains without first consulting a physician.

Epilepsy Foundations throughout the country have additional materials and offer a variety of programs to help people understand this common disorder. For further information about epilepsy and the name of the Epilepsy Foundation nearest you, log on to **www.epilepsyfoundation.org** *or* **call 800-332-1000.**

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About the Epilepsy Foundation

The Epilepsy Foundation is a national voluntary agency solely dedicated to the welfare of the nearly 3 million people with epilepsy in the U.S. and their families and caregivers. We work 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 at www.EpilepsyFoundation.org, or call 800-332-1000.

Our website has comprehensive information about epilepsy and seizures and offers opportunities to connect with other people affected by epilepsy through our eCommunities forums and Web events. Our publication, epilepsyUSA, is a quarterly magazine that reports on developments for people affected by seizure disorders—new treatments and medicines, ground-breaking research, safety tips, personal stories, advice for parents and more.

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If a law enforcement officer has any doubts about the legality of a person's possession of medication, the physician who prescribed the drug (or the pharmacy which dispensed it) should be contacted without delay. Depriving a person with epilepsy of access to his medication is putting his health—even his life—at risk.

When medication is taken away, for even as little as several hours, the following may happen:

- A convulsive seizure with subsequent injury due to falling on cement floors, or in a confined area.
- A series of convulsive seizures called **status epilepticus**, in which the convulsions continue non-stop, or are followed by coma or a subsequent series of seizures. These are life threatening, and the mortality risk is high unless prompt treatment at a properly equipped medical facility is available.
- Episodes of automatic behavior, known as **complex partial seizures**, in which the person, unaware of where he is or what his circumstances are, injures himself in unconscious efforts to escape, or is injured in struggles with law enforcement personnel. A person having this type of seizure is on automatic pilot so far as his actions are concerned. Efforts to restrain the person can increase agitated behavior.

Could it be Epilepsy?

Only a physician can say for certain whether or not a person has epilepsy. But many people miss the more subtle signs of the condition and therefore also miss the opportunity for early diagnosis and treatment. The symptoms listed below are not necessarily indicators of epilepsy, and may be caused by some other, unrelated condition. However, if one or more is present, a medical check-up is recommended.

- Periods of blackout, confusion or memory lapses.
- Occasional "fainting spells" in which bladder or bowel control is lost, followed by extreme fatigue.
- Episodes of blank staring in children; brief periods when there's no response to questions or instructions.
- Sudden falls in a child for no apparent reason.
- Episodes of blinking or chewing at inappropriate times.
- A convulsion, with or without fever.
- Clusters of swift jerking movements in babies.

For Law Enforcement Officers: Epilepsy and Drugs

Despite medical progress, epilepsy cannot be cured in the same sense that an infection can be cured. However, seizures can be controlled completely or significantly reduced in most people who have the disorder. This control is achieved through regular, daily use of antiseizure drugs called anticonvulsants. Doses may have to be taken up to four times a day, and people with epilepsy therefore usually carry medication with them. To miss a scheduled dose is to risk a seizure.

Many medications are used in the treatment of epilepsy. More than one drug may be prescribed. Among them are phenobarbital, Ativan (lorazepam), Klonopin (clonazepam), Tranxene (clorazepate) and Valium (diazepam).

Individualized aid

Some people may require individualized care plans that include ways to treat the person during a seizure. For example, people who use a magnet with a vagus nerve stimulator or those who use special types of medication to treat cluster seizures will require special instruction in the use of these therapies. This instruction falls outside the scope of basic seizure first aid and should be individualized for each person.

No need to call an ambulance

1. If medical I.D. jewelry or card says "epilepsy."
2. If the seizure ends in under five minutes.
3. If consciousness returns without further incident.
4. If there are no signs of injury, physical distress, or pregnancy.

An ambulance should be called

1. If the seizure has happened in water.
2. If there's no medical I.D., and no way of knowing whether the seizure is caused by epilepsy.
3. If the person is pregnant, injured, or diabetic.
4. If the seizure continues for more than five minutes.
5. If a second seizure starts shortly after the first has ended.
6. If consciousness does not start to return after the shaking has stopped.

If the ambulance arrives after consciousness has returned, the person should be asked whether the seizure was associated with epilepsy and whether emergency room care is wanted.

Seizure Recognition and First Aid

SEIZURE TYPE	WHAT IT LOOKS LIKE	WHAT IT IS NOT	WHAT TO DO	WHAT NOT TO DO
Generalized Tonic Clonic (Previously called Grand Mal)	Sudden cry, fall, rigidity, followed by muscle jerks, shallow breathing or temporarily suspended breathing, bluish skin, possible loss of bladder or bowel control, usually lasts a couple of minutes. Normal breathing then starts again. There may be some confusion and/or fatigue, followed by return to full consciousness.	Heart attack. Stroke.	Look for medical identification. Protect from nearby hazards. Loosen ties or shirt collars. Protect head from injury. Turn on side to keep airway clear unless injury exists. Reassure as consciousness returns. If single seizure lasted less than 5 minutes, ask if hospital evaluation wanted. If multiple seizures, or if one seizure lasts longer than 5 minutes, call an ambulance. If person is pregnant, injured, or diabetic, call for aid at once.	Don't put any hard implement in the mouth. Don't try to hold the tongue. It can't be swallowed. Don't try to give liquids during or just after a seizure. Don't use artificial respiration unless breathing is absent after muscle jerks subside, or unless water has been inhaled. Don't restrain.
Absence (Previously called Petit Mal)	A blank stare, beginning and ending abruptly, lasting only a few seconds, most common in children. May be accompanied by rapid blinking, some chewing movements of the mouth. Child or adult is unaware of what's going on during the seizure, but quickly returns to full awareness once it has stopped. May result in learning difficulties if not recognized and treated.	Daydreaming. Lack of attention. Deliberate ignoring of adult instructions.	No first aid necessary, but if this is the first observation of the seizure(s), medical evaluation should be recommended.	
Simple Partial	Jerking may begin in one area of body, arm, leg, or face. Can't be stopped, but patient stays awake and aware. Jerking may proceed from one area of the body to another, and sometimes spreads to become a convulsive seizure. Partial sensory seizures may not be obvious to an onlooker. Patient experiences a distorted environment. May see or hear things that aren't there, may feel unexplained fear, sadness, anger, or joy. May have nausea, experience odd smells, and have a generally "funny" feeling in the stomach.	Acting out, bizarre behavior. Hysteria. Mental illness. Psychosomatic illness. Parapsychological or mystical experience.	No first aid necessary unless seizure becomes convulsive, then first aid as above No immediate action needed other than reassurance and emotional support. Medical evaluation should be recommended.	
Complex Partial (Also called Psychomotor or Temporal Lobe)	Usually starts with blank stare, followed by chewing, followed by random activity. Person appears unaware of surroundings, may seem dazed and mumble. Unresponsive. Actions clumsy, not directed. May pick at clothing, pick up objects, try to take clothes off. May run, appear afraid. May struggle or flail at restraint. Once pattern established, same set of actions usually occur with each seizure. Lasts a few minutes, but post-seizure confusion can last substantially longer. No memory of what happened during seizure period.	Drunkenness. Intoxication on drugs. Mental illness. Disorderly conduct.	Speak calmly and reassuringly to patient and others. Guide gently away from obvious hazards. Stay with person until completely aware of environment. Offer to help getting home.	Don't grab hold unless sudden danger (such as a cliff edge or an approaching car) threatens. Don't try to restrain. Don't shout. Don't expect verbal instructions to be obeyed.
Atonic Seizures (Also called Drop Attacks)	A child or adult suddenly collapses and falls. After ten seconds to a minute he recovers, regains consciousness, and can stand and walk again.	Clumsiness. Normal childhood "stage." In a child, lack of good walking skills. In an adult, drunkenness, acute illness.	No first aid needed (unless he hurt himself as he fell), but the person should be given a thorough medical evaluation.	
Myoclonic Seizures	Sudden brief, massive muscle jerks that may involve the whole body or parts of the body. May cause person to spill what they were holding or fall off a chair.	Clumsiness. Poor coordination.	No first aid needed, but should be given a thorough medical evaluation.	
Infantile Spasms	These are clusters of quick, sudden movements that start between three months and two years. If a child is sitting up, the head will fall forward, and the arms will flex forward. If lying down, the knees will be drawn up, with arms and head flexed forward as if the baby is reaching for support.	Normal movements of the baby. Colic.	No first aid, but doctor should be consulted.	

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