

# SEIZURES AND FIRST AID

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*Helping those with epilepsy by giving  
them a better understanding of the  
condition and its treatment*





## **SEIZURES AND FIRST AID**

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You may have seen an epileptic seizure and not even realized it. Even if you aren't a trained health professional, you can still learn some basic first aid for dealing with seizures.

For people like you who deal frequently with the public, this pamphlet should help you recognize a seizure when it happens and know how to give basic first aid—if it's needed.

## **WHAT IS EPILEPSY?**

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The term “epilepsy” describes a common neurological condition that affects about 300,000 Canadians. Being able to recognize seizures is important because they can sometimes be mistaken for something else.

For example, the convulsion that a generalized tonic-clonic seizure causes may look like a heart attack and CPR may be used unnecessarily.

A person who appears drunk or high on illegal drugs and is carrying Phenobarbital (an anticonvulsant drug) may actually be having a seizure.

Seizures happen when a surge of electrical energy passes between cells in a person's brain. This sudden overload may stay in just one small area of the brain or it could swamp the whole system. This changes behaviour, affects consciousness and causes unusual body movements.

About one person in 100 has epilepsy, the cause of which is unknown in 75 percent of the children who have it and half of the adults. This condition is not contagious at any age.

## TYPES OF SEIZURES

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What different seizures look like depends on which part of the brain was involved and how much of the total brain area was affected.

### Generalized Tonic-Clonic Seizures

- The ones most people tend to think of when they hear the word “epilepsy”
- Causes convulsions, which last from two to five minutes
- Complete loss of consciousness
- Muscle spasms

### Absence Seizures

- A blank stare lasting only a few seconds

### Partial Seizures

- Involuntary arm or leg movements
- Distorted sensations or a period of automatic movements in which awareness is blurred or completely absent

Since the effects of seizures vary, so does the way you need to react to them. This pamphlet describes them in detail and how you should handle each type.

Posting this on a bulletin board will ensure that people who deal with the public can easily access it.

# GENERALIZED TONIC-CLONIC

(formerly Grand Mal)

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## What it looks like

- Sudden cry, fall
- Rigidity followed by muscle jerks
- Shallow or temporarily suspended breathing
- Bluish skin
- Possible loss of bladder or bowel control
- Usually lasts a couple of minutes before normal breathing resumes
- May be some confusion and/or fatigue and then a return to full consciousness

## What it is Not

- Heart attack
- Stroke

## What to Do

- Look for medical identification
- Protect from nearby hazards
- Loosen tie or shirt collar
- Protect head from injury
- Turn on side to keep airway clear unless injury exists
- Reassure as consciousness returns
- If single seizure lasts less than five minutes, ask if hospital evaluation wanted
- If multiple seizures, or if one seizure lasts longer than five minutes, call an ambulance. If person is pregnant, injured or diabetic, call for aid at once.

## What Not to Do

- Don't put any hard implement in person's mouth
- Don't try to hold tongue, it can't be swallowed
- Don't try to give liquids during or just after seizure
- Don't use artificial respiration unless breathing is absent after muscle jerks subside or unless water has been inhaled
- Don't restrain

# **ABSENCE**

(formerly Petit Mal)

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## **What it Looks Like**

- 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

## **What it is Not**

- Daydreaming
- Lack of attention
- Deliberate ignoring of adult instructions

## **What to Do**

- No first aid necessary, but if this is the first observation of the seizure(s), medical evaluation should be recommended

## SIMPLE PARTIAL

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### What it Looks Like

- Jerking may begin in one area of body, arm, leg or face
- Can't be stopped, but person 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
- Person 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

### What it is Not

- Acting out, bizarre behaviour
- Hysteria
- Mental illness
- Psychosomatic illness
- Parapsychological or mystical experience

### What to Do

- No first aid necessary unless seizure becomes convulsive, then first aid as general tonic-clonic seizures
- No immediate action needed other than reassurance and emotional support
- Medical evaluation should be recommended

## COMPLEX PARTIAL

(also called Psychomotor or Temporal Lobe)

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### What it Looks Like

- Usually starts with blank stare, followed by chewing, followed by random activity
- Person appears unaware of surroundings
- May seem dazed and mumbles
- 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

### What it is Not

- Drunkenness
- Intoxication or drugs
- Mental illness
- Disorderly conduct

### What to Do

- Speak calmly and reassuringly to person and others
- Guide gently away from obvious hazards
- Stay with person until completely aware of environment
- Offer help getting home

### What Not to Do

- 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**

(also called drop attacks)

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### **What it Looks Like**

- A child or adult suddenly collapses and falls
- After 10 seconds to a minute person recovers, regains consciousness and can stand and walk again

### **What it is Not**

- Clumsiness
- Normal childhood “stage”
- In a child, lack of good walking skills
- In an adult, drunkenness, acute illness

### **What to Do**

- No first aid needed (unless person hurt while falling), but a child should be given a thorough medical evaluation

## **MYOCLONIC**

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### **What it Looks Like**

- 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

### **What it is Not**

- Clumsiness
- Poor coordination

### **What to Do**

- No first aid needed, but person should be given a thorough medical evaluation

## INFANTILE SPASMS

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### What it Looks Like

- 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

### What it is Not

- Normal movements of the baby
- Colic

### What to Do

- No first aid, but doctor should be consulted

## STATUS EPILEPTICUS

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### What it Looks Like

- Single seizure lasts more than 30 minutes with, or without, impaired consciousness
- Repeated seizures last more than 30 minutes with impaired consciousness in between seizures
- Can occur with trauma
- Often occurs after abruptly stopping anticonvulsant drugs
- Can be life-threatening if not treated immediately

### What to Do

- Call ambulance or rush to hospital emergency ward

## **NO AMBULANCE NEEDED WHEN...**

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- Medical I.D. jewellery or card says “epilepsy”, and
- The seizure ends in under five minutes, and
- Consciousness returns without further incident, and
- There are no signs of injury, physical distress or pregnancy

## **CALL AN AMBULANCE WHEN...**

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- The seizure has happened in water
- There’s no medical I.D. and no way of knowing whether the seizure is caused by epilepsy
- The person is pregnant, injured or diabetic
- The seizure continues for more than five minutes
- A second seizure starts shortly after the first one has ended
- Consciousness doesn’t begin to return after the shaking has stopped

If consciousness is regained before the ambulance arrives, the person should be asked if the seizure was associated with epilepsy and if a trip to the hospital is needed.

## HEAD FOR THE EMERGENCY ROOM WHEN...

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An uncomplicated convulsive seizure in someone with epilepsy isn't a medical emergency if it stops naturally after a few minutes without any ill effects. After resting, the average person can go about his/her business and may need only limited, if any, help in getting home.

Occasionally a seizure won't stop naturally, and several other medical conditions can be the cause. These include:

- Diabetes
- Heat exhaustion
- Poisoning
- High fever
- Brain infections
- Pregnancy
- Hypoglycemia
- Head injury

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

## FIRST AID FOR SEIZURES IN SPECIAL CIRCUMSTANCES

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### In Water

Remove the person as quickly as possible, while supporting the body and keeping the head tilted. The head and face should stay above the surface. Once on dry land, examine the person and begin artificial respiration immediately if he/she isn't breathing. The person should be taken to the emergency of a local hospital for a careful medical check-up, even if he/she appears to have fully recovered from the seizure. Inhaling water can cause heart or lung damage.

### In an Airplane

If possible, help the person lie across two or more seats with the head and body turned on one side. Once consciousness has been fully regained, help the person into a resting position in a single reclining seat.

If there aren't any empty places, recline the person's seat. Once the seizure's rigidity phase has passed, turn the person gently in the seat so that he/she is leaning towards one side.

You can arrange pillow or blankets to protect the person's head from hitting unpadded areas of the plane, but make sure the person is sitting at an angle that keeps the airway clear and breathing is unobstructed.

### On a Bus

Lie the person across a double or triple seat, turn the person on the side and follow the same steps as indicated above. A person who has fully recovered from a seizure can stay on the bus until arriving at his/her destination.

## FOR POLICE OFFICERS: EPILEPSY AND DRUGS

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Despite medical progress, epilepsy generally cannot be cured. But with regular daily use of anti-seizure drugs called anticonvulsants, seizures can be completely controlled or significantly reduced in most individuals.

People with epilepsy usually carry medication with them because they may have to take it up to four times a day. They risk having a seizure if they miss a scheduled dose.

The following are brand and generic names of drugs most commonly used to treat epilepsy:

- Ativan (Lorazepam)
- Depakene (Valproic Acid)
- Diamox (Acetazolamide)
- Dilantin (Phenytoin)
- Epival (Divalproex Sodium)
- Frisium (Clobazam, Benzodiazepine)
- Keppra (Levetiracetam)
- Lamictal (Lamotrigine)
- Luminal (Phenobarbital, Barbiturate)
- Mogadon (Nitrazepam)
- Mysoline (Primidone)
- Neurontin (Gabapentin)
- Rivotril (Clonazepam, Benzodiazepine)
- Sabril (Vigabatrin)
- Tegretol (Carbamazepine)
- Topamax (Topiramate)
- Trileptal (Oxcarbazepine)
- Valium (Diazepam, Benzodiazepine)
- Zarontin (Ethosuximide Succinimide)
- Zonegran (Zonisamide)

People with epilepsy can be prescribed more than one drug. Depriving them access to their medication puts their health—even their life—at risk. If a police officer has any doubts whether or not the medication a person has is legal, the doctor who prescribed the drug or the pharmacy which dispensed it should be contacted immediately.

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

- A convulsive seizure with subsequent injury from falling on cement floors or in a confined area
- A series of convulsive seizures called status epilepticus, when convulsions continue nonstop or are followed by a coma or a subsequent series of seizures. These are life-threatening and the risk of death is high unless the person is treated promptly at a properly equipped medical facility.
- Episodes of automatic behaviour, known as complex partial seizures, during which the person is unaware of where he/she is or what circumstances are, and may be injured in unconscious efforts to escape or in a struggle with police officers. The person having this type of seizure is acting on automatic pilot and efforts to restrain the person can produce a fighting reaction which he/she cannot control.

## **COULD IT BE EPILEPSY?**

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Only a physician can diagnose epilepsy, yet many people miss the condition's more subtle signs. That prevents them from getting an early diagnosis and treatment. The symptoms listed below aren't necessarily indicators of epilepsy, since they may be caused by another unrelated condition. However, anyone who displays one or more of these symptoms should see a doctor.

- Periods of blackout or confused memory
- 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 more information on health,  
employment and social services, contact  
the nearest Epilepsy association.*



Mailing Address:  
Epilepsy Canada  
2255B Queen St E, Suite 336  
Toronto, ON M4E 1G3  
1-877-SEIZURE (734-0873) *toll-free*

[epilepsy@epilepsy.ca](mailto:epilepsy@epilepsy.ca)  
[www.epilepsy.ca](http://www.epilepsy.ca)

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