



Niagara Catholic District School Board

**SUPPORTING CHILDREN AND STUDENTS WITH PREVALENT  
MEDICAL CONDITIONS POLICY - EPILEPSY**

ADMINISTRATIVE PROCEDURES

300 – School/Students

Policy No 302.1.4

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## DEFINITIONS

Epilepsy: results from sudden bursts of hyperactivity in the brain; this causes seizures which vary in form, strength, and frequency depending on where the brain abnormal activity is found. Epilepsy is the diagnosis and seizures are the symptom.

A seizure is a brief episode caused by a transient disruption in brain activity that interferes with one or more brain functions.

Epilepsy is a brain disorder associated with an increased susceptibility to seizures.

Common seizure types: there are many types of seizures. The different types begin in different areas of the brain and they are grouped into two categories: Focal (or partial) and generalized.

Focal (or Partial) Seizures occur when seizure activity is limited to a part of one brain hemisphere. There is a site, or a focus, in the brain where the seizure begins. Sometimes seizures begin as focal (or partial) and then spread and become generalized. These are referred to as focal (or partial) seizures secondarily generalized.

Simple Focal (or Partial Seizure): awareness remains intact. A simple focal (or partial) seizure usually begins suddenly, and lasts seconds to minutes.

Aura: an aura can take many different forms; e.g., an aura might be a distortion in sight, sound, or smell, sudden jerky movements of one area of the body, dizziness, or a sudden overwhelming emotion. An aura is a simple Focal (or partial) seizure that may occur alone or may progress to a focal dyscognitive seizure or a generalized seizure.

Complex Focal (or Partial) Seizure: a person experiences altered awareness and may appear dazed and confused. A dreamlike experience may occur. The seizure often begins with an aura just before awareness is altered and can be used as a warning.

Automatisms: random purposeless movements over which the individual has no control. These may include movements such as chewing motions, lip smacking, pulling at clothing, or random walking. The seizure usually lasts between one and two minutes and is often followed by a period of disorientation or confusion.

Generalized Seizures: is characterized by the involvement of the whole brain. The excessive electrical discharge is widespread and involves both sides of the brain. The seizure may or may not be convulsive. A generalized seizure commonly takes one of two forms: absence (without convulsions) or tonic clonic (with convulsions)

Absence seizures (formerly known as petit mal): result in a blank stare usually lasting less than 10 seconds. The seizure starts and ends abruptly, and awareness is impaired during the seizure. These seizures are

sometimes misinterpreted as daydreaming or inattentiveness. Following the seizure, alertness is regained quickly. In an absence seizure, epileptic activity occurs throughout the entire brain. It is a milder type of activity that causes unconsciousness without convulsions. After the seizure, the person has no memory of it. During the seizure, the person may lose muscle control and make repetitive movements. There is no confusion after the seizure, and the person can usually resume full activity immediately.

**Tonic Clonic:** a tonic clonic (formerly known as grand mal) seizure usually lasts from one to three minutes. The tonic phase of this seizure type typically involves a crying out or groan, loss of awareness, and a fall as consciousness is lost and muscles stiffen. The cry or groan is not from pain; it is the sound of air being forced out of the lungs. The second phase or clonic phase of the seizure usually involves a convulsion and there is jerking and twitching of the muscles in all four limbs. Usually the movement involves the whole body. Urinary or bowel control may be lost and there may be shallow breathing, a bluish or gray skin colour, and drooling. Awareness is regained slowly, and the person often experiences a period of fatigue, confusion, or a severe headache after the seizure.

**Atonic Seizure (also known as drop attacks):** involves a sudden loss of muscle tone often resulting in a person falling or almost falling, dropping objects or nodding the head involuntarily.

**Myoclonic Seizure:** results in a sudden jerk of part of the body such as the arm or leg. The person may fall over. The seizure is very brief.

**Infantile Spasms:** a spasm typically lasts a few second but often occurs in a cluster of 5 to 50 or more. Symptoms include sudden flexing forward of head and arms, sudden drawing up of knees, raising both arms, and sudden body flexing at waist.

**Medical Incident:** A medical incident is a circumstance that requires immediate response and monitoring.

**Plan of Care:** A form that contains individualized information on a student with a prevalent medical condition

## EPILEPSY

Epilepsy is a common brain disorder characterized by recurrent seizures. Most seizures are brief events that last from several seconds to a couple of minutes and normal brain function will return after the seizure ends. Recovery time following a seizure will vary. Sometimes recovery is immediate as soon as the seizure is over. Other types of seizures are associated with an initial period of confusion afterwards. Following some types of seizures there may be a more prolonged period of fatigue and/or mood changes. A health care professional may consider epilepsy as a possible diagnosis when a person has had two or more seizures starting in the brain.

### Triggers

- Medication;
- Not taking one's anti-epileptic medication;
- Other medications that are taken in addition to anti-epileptic medication.

### Internal Factors

- Stress, excitement and emotional upset; this type of over-stimulation may lower the student's resistance to seizures by affecting sleeping or eating habits;
- Lack of sleep can change the brain's patterns of electrical activity and can trigger seizures;
- Fevers may make some students more likely to have a seizure;

- Menstrual cycle; Many females find their seizures increase around this time of their period. This is referred to as catamenial epilepsy and is because of changes in hormone levels, increased fluid retention and changes in anti-epileptic drug levels in the blood.

**External Factors:**

- Poor diet can affect blood sugar levels causing seizures;
  - Stimulants such as tea, coffee, chocolate, sugar, sweets, soft drinks, excess salt, spices and animal proteins may trigger seizures by suddenly changing the body’s metabolism;
  - Parents/Guardians have reported that allergic reactions to certain foods (e.g. white flour) also seem to trigger seizures in their children;
- Certain nutrient shortages, such as a lack of calcium, have also been found to trigger seizures;
- Very warm weather, hot baths or showers, especially when there is a sudden change in temperature;
- Alcohol can affect the rate at which the liver breaks down anti-epileptic medication;
  - This may decrease the blood levels of anti-epileptic medications, affecting an individual’s seizure control;
- Television, videos and flashing lights;
  - The “strobe effect” from fast scene changes on a bright screen, rapidly changing colours or fast-moving shadows or patterns can all be trigger seizures;
- Lack of physical activity.

**Signs and Symptoms**

Motor Symptoms:	Non-motor Symptoms:	Autonomic Symptoms:	Autonomic Symptoms:
<ul style="list-style-type: none"> <li>● Jerking (clonic)</li> <li>● Limp or weak muscles</li> <li>● Rigid or tense muscles</li> <li>● Brief muscle twitching (Myoclonus)</li> <li>● Epileptic spasms</li> <li>● Automatism or repeated automatic movements (clapping, rubbing hands, lip smacking, chewing, running)</li> <li>● Lack of movement (behaviour arrest)</li> </ul>	<ul style="list-style-type: none"> <li>● Changes in thinking or cognition</li> <li>● Loss of Memories</li> <li>● Blank stares</li> <li>● Repeated words</li> <li>● Appearing dazed</li> <li>● Laughing, screaming or crying</li> </ul>	<ul style="list-style-type: none"> <li>● Abdominal discomfort</li> <li>● Stomach pain</li> <li>● Belching</li> <li>● Flatulence</li> <li>● Vomiting</li> <li>● Pallor</li> <li>● Sweating</li> <li>● Dilation of pupils</li> <li>● Alteration in heart rate and respiration</li> </ul>	<ul style="list-style-type: none"> <li>● Fear, sadness, anger or joy</li> <li>● Sensory</li> <li>● Sees lights</li> <li>● Hears buzzing</li> <li>● Feels tingling or numbness</li> <li>● Smells a foul odour</li> <li>● Bad taste in the mouth</li> <li>● Funny feeling in the pit of the stomach</li> <li>● Choking sensation</li> </ul>

## **Emergency Response**

In the event that rescue medication is prescribed, it is essential that the *Individual Plan of Care* include the ***emergency response protocol***, and that all staff are aware of how it is to be implemented. Medication must be provided to the school in a premeasured format. The plan will clearly identify individual roles and be respectful of all applicable legislation, policies and collective agreements.

## **Emergency Procedure:**

Emergency response should be detailed for individual students in the *Individual Plan of Care*. In general, if someone is having a seizure:

- Stay calm:
  - Seizures usually end on their own within seconds or a few minutes.
- Time It:
  - Note the time the seizure begins and ends.
- Create a safe space:
  - Move sharp objects out of the way;
  - if the student falls, place something soft under their head and roll them on their side as the seizure subsides;
  - If the student wanders, stay by their side and gently steer them away from danger;
  - If the student is in wheelchair, remain in the wheelchair, secure harness and recline if available.
- Call 911:
  - If the seizure lasts more than 5 minutes;
  - If it repeats without full recovery between convulsive seizures or as directed by neurologist;
  - If consciousness or regular breathing does not return after the seizure ends;
  - If the student is pregnant, has diabetes, appears injured or is in water;
  - If you are not sure the student has epilepsy or a seizure disorder.
- Provide Assurance:
  - When the seizure ends, stay with them until complete awareness returns.
- Do not:
  - Restrain the student;
  - Put anything in their mouth.

## **Field Trips**

- Field trips are an extension of the learning in the classroom and therefore, it is imperative that they are planned to include all students. The principal must ensure that all appropriate documentation is received in advance of the field trip and that plans are in place to accommodate students with epilepsy. Field trips are an extension of learning. The classroom teacher shall ensure that the student's *Epilepsy Plan Of Care* ([Appendix A](#)) accompanies the student on the field trip and is available during the field trip.
- If it is necessary for the student to take prescription medication during the field trip, the parent/guardian and physician must complete the *Authorization for Administration of Prescribed and Non Prescribed Medication During School Hours form*. It must be forwarded to the principal prior to the administration of medication. If the student currently receives medication during the

school day and a copy of this form is on file at the school, it is not necessary to complete another form.

### **Information and Awareness**

A medical diagnosis of epilepsy is based on multiple pieces of information: the description of the episodes; the student's medical and family history; and the results of diagnostic tests. Fortunately, epilepsy is a treatable condition. Many people with epilepsy (two out of three) will achieve good seizure control with medication. When medication is not effective in preventing seizures there are other treatment options available.

Types of Seizures:

- Focal (or partial) seizures occur when seizure activity is limited to a part of one brain hemisphere. There is a site, or a focus, in the brain where the seizure begins. There are two types of focal seizures:
  - Focal Onset Aware Seizures (previously known as a Simple Partial Seizure);
  - Focal Onset Impaired Awareness Seizures (previously known as Focal Dyscognitive Seizure or Complex Partial Seizures);
- Generalized seizures occur when there is widespread seizure activity in the left and right hemispheres of the brain. The different types of generalized seizures are:
  - Absence seizures (formerly known as petit mal);
  - Tonic-clonic or convulsive seizures (formerly known as grand mal);
  - Atonic seizures (also known as drop attacks);
  - Clonic seizures;
  - Tonic seizures;
  - Myoclonic seizures;
- Psychogenic non-epileptic seizures are not due to epilepsy but may look very similar to an epilepsy seizure.

### **Safety Considerations**

- Ensure that consideration is made on behalf of students with Epilepsy in the planning of school events and field trips (e.g., lighting effects for school dances, bleacher seating for athletic events);
- Be aware that during physical activities, where climbing is involved, that the student is properly assisted and does not climb to great heights;
- Monitor that fluorescent light fixtures in the classroom/school are working correctly (not flickering);
- Minimize the use of videos in class, if possible;
- Avoid loud noise as much as possible;
- Avoid using the "lights out" technique for class control;
- Ensure that the information provided for occasional teachers include the *Individual Plan of Care*;
- The principal will ensure that a plan is established to support students with epilepsy in the event

of a school emergency (e.g. bomb threats, evacuation, fire, “hold and secure”, “lockdown” or for activities off school property (e.g. field trip, sporting event).

### **Facilitating and Supporting Routine Management**

- Students are allowed to carry their medications (including controlled substances) and supplies, as outlined in the *Individual Plan of Care*;
- Where possible, facilitating and supporting daily or routine management involves, but is not limited to, supporting inclusion by allowing students with epilepsy to perform daily or routine management activities in a school location (e.g., within the classroom), as outlined in their *Individual Plan of Care*.

### **Resources**

- Resources are available from the Epilepsy Niagara Website: <http://epilepsyniagara.org/> under the “Resources” tab.
- <http://epilepsyontario.org/agency/epilepsy-niagara/>

## **FORMS**

All forms for use by the Niagara Catholic District School Board staff can be accessed through the Employee Portal under Electronic Forms.

All forms for use by the Niagara Catholic District School Board students and parents are available on the School Board website.

Forms related to this procedure:

- [\*Individual Plan of Care\*](#)
- [\*Administration Prescribed Medication And Non-Prescribed Medication During School Hours\*](#)
- [\*Record of Administration of Prescribed And Non-Prescribed Medication\*](#)