



HEALTH SERVICES
SEIZURE DISORDER PROTOCOL

DEFINITIONS

- A **seizure** is a brief attack of altered consciousness with purposeless motor or sensory phenomena, caused by a sudden abnormal electrical discharge in the brain.
- **Epilepsy (or seizure disorder)** is a chronic condition characterized by recurrent seizures.

TYPES OF SEIZURES:

Seizure type is determined by the part (or parts) of the brain where abnormal electrical activity arises.

Generalized seizures: Electrical activity arises from the entire brain at once.

Generalized tonic-clonic (old term – grand mal)

- Sudden complete loss of consciousness; fall (if standing);
- Stiffening of entire body (tonic phase) with arching of the back, jaw clenching, an “epileptic cry” (air being forcefully expelled from the lungs), sometimes cyanosis (from breath holding), sometimes passage of urine or stool (caused by violent contraction of abdominal muscles);
- Tonic phase then followed by rhythmic jerking
- Duration – usually 1 to 5 minutes;
- After seizure: drowsiness, fatigue, sore muscles, confusion, may sleep for minutes to hours, and have no memory of event;
- Unusual to have more than one in a day.

Absence seizure (old term – petit mal)

- Sudden complete loss of consciousness, but no loss of motor tone or fall;
- Little or no motor activity – usually a blank stare, minor, rhythmic eye blinking or facial twitching;
- Duration usually 30 seconds or less;
- After seizure: completely normal, resumption of activity, no awareness that anything happened.
- Not unusual to have several attacks in one day.

Partial seizures: Electrical activity arises from only one part of the brain.

Simple partial

- No loss of consciousness
- One part of body rhythmically jerks or twitches (commonly one side of the face or one hand or hand and arm);
- Duration varies;
- After seizure: resumption of normal activity, full memory of event.

Complex partial (old terms – temporal lobe or psycho motor seizure)

- Partial loss of consciousness – may appear awake, but “out of it”, disoriented, not aware of surroundings;
- Movements are variable, but are typical for the individual;
- Common movements are staring, facial twitching, eye blinking (may look like absence seizure), repetitive purposeless movements such as picking at clothes, patting or rubbing, mumbling, wandering aimlessly.
- Duration usually 1 to 3 minutes;
- After seizure: confused, drowsy, disoriented, may sleep, usually little or no memory of event; Duration and after seizure activity helps distinguish from absence seizure.

Partial seizures which become generalized:

Local electrical activity in one part of the brain often spreads to the rest of the brain and a simple partial or complex partial seizure turns into a generalized tonic-clonic seizure.

The partial part of the seizure may be very brief and hard to miss if the very onset of the seizure is not witnessed.

An aura is an odd feeling (usually fear, dread, a funny feeling in the stomach or other odd sensation) that may precede a seizure, and allow the person to sense that a generalized tonic-clonic seizure is about to occur; auras are felt to be brief complex partial seizures which quickly generalize into a full blown tonic-clonic seizure.

Other seizure types: There are other seizure types, but these are uncommon and most often seen in individuals with severe chronic brain diseases. Examples are: Atonic Seizures (a brief, sudden total loss of body tone and fall); or Myoclonic seizures (a single extremely brief, sudden total body jerk, often come in series)

PROCEDURE WHEN AN INDIVIDUAL HAS A SEIZURE:

1. If student has not already fallen, lower to ground to minimize injury.
2. Remove objects, furniture which may cause injury (desks, chairs, etc.)
3. Place padding under head.
4. Turn student on left side to minimize chance of aspiration.
5. Loosen any restrictive clothing.
6. Do not place anything in the mouth.
7. If student is partially conscious and wandering around, do not try to restrain. Remove any potentially harmful objects, protect from injury. Speak quietly and calmly.
8. Provide first aid for any injuries.
9. Allow student to rest and fully recover after a seizure. Do not allow to resume activity until alert and oriented to person, place and time.
10. Record observations on seizure log as completely as possible, especially noting what happened first, how the seizure progressed and the level of consciousness. Observation is important as it may help the physician to determine the seizure type, which in turn may influence therapy.
11. Notify school nurse and parents.

EMERGENCY SITUATIONS: Call 911/EMS and notify the school nurse and parents if any of the following occur:

1. This is the first known seizure for the student;
2. The seizure lasts more than 5 minutes (“status epilepticus”);
3. More than one seizure occurs without full recovery of consciousness between seizures;
4. The student is not arouseable after the seizure;
5. Trouble breathing, prolonged apnea (beyond the brief period of breath-holding during the tonic phase of a generalized tonic-clonic seizure);
6. Significant injury from the seizure, especially head or neck injury during a fall, laceration, suspected fracture.

STUDENTS WITH A HISTORY OF UNCONTROLLED OR PROLONGED SEIZURES:

1. Students with a history of uncontrolled or prolonged seizures must have an *Individualized Seizure Protocol* completed by his/her physician.
2. The protocol must specify:
 - a. Criteria for notifying 911/EMS
 - b. Tolerable duration of seizures and/or specific number of seizures before intervention (calling EMS or administering emergency medication)
 - c. Specific interventions, including emergency medication or other interventions.
3. Students with a protocol, which requires Diastat Rectal medication or oxygen administration, will attend a school (transferred if necessary) where there is a full time on-site nurse.