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**Antiepileptic Medication Administration
Training Program
for Connecticut's Unlicensed School Personnel**

Developed by:
The Connecticut State Department of Education
in consultation with
the Connecticut School Nurse Advisory Council and
the Association of School Nurses of Connecticut

Permission granted to the Connecticut State
Department of Education by the Epilepsy
Foundation for use of its epilepsy training
information used in this document.



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Objectives

This training program includes:

- (A) an overview of childhood epilepsy and types of seizure disorders;
- (B) sample individual student's emergency seizure action plan;
- (C) recognition of seizure activity;
- (D) emergency management procedures for seizure activity, including administration techniques for emergency seizure medication;



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Objectives, cont'd

- (E) when to activate emergency medical services and post-seizure procedures and follow-up;
- (F) reporting procedures after a student has received emergency seizure medication; and
- (G) other relevant issues or topics related to emergency interventions for students who experience seizures.



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Public Act 15-215

- A qualified school employee may administer antiepileptic medication, including by rectal syringe, to a specific student with a medically diagnosed epileptic condition that requires prompt treatment in accordance with the student's individual seizure action plan.
- Limited to situations when the school nurse is absent or unavailable.
- The school nurse must provide general supervision to the qualified school employee.



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Qualified School Employee

Means:

- Principal;
- Teacher;
- Licensed athletic trainer;
- Licensed physical or occupational therapist employed by a school district;
- Coach; or
- School paraprofessional.



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Qualified School Employee: Responsibilities

- Annually completes the training program;
- Receives monthly reviews by the school nurse; and
- Voluntarily agrees to serve as a qualified school employee.



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School Nurse: Responsibilities

- Must obtain student's individual seizure action plan;
- Develop emergency care plan per school district procedure;
- Select qualified school employee;
- Facilitate training for qualified school employees;
- Confirm completion of training and competency of qualified school employee to administer antiepileptic medication; and
- Provide general supervision to qualified school employees (including monthly reviews).



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What is a seizure?

A brief, excessive discharge of electrical activity in the brain that alters one or more of the following:

- Movement
- Sensation
- Behavior
- Awareness*



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What is Epilepsy?

- Epilepsy is a chronic neurological disorder characterized by a tendency to have recurrent seizures.
- Epilepsy is also known as a "seizure disorder."



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Did you know that...

- Most seizures are not medical emergencies.
- Students may not be aware they are having a seizure and may not remember what happened.
- Epilepsy is not contagious.
- Epilepsy is not a form of mental illness.
- Students almost never die or have brain damage during a seizure.
- A student cannot swallow his or her tongue during a seizure.*



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Common causes of Epilepsy

Common identifiable causes include:

- Brain trauma;
- Brain lesions (such as tumors);
- Poisoning (lead)
- Infections of the brain (such as meningitis, measles, encephalitis);
- Brain injury at birth; and
- Abnormal brain development.

Note: The cause is unknown for 70% of people with epilepsy.*



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Seizure Types

Generalized Seizures:

- Involve the whole brain;
- Common types include absence and tonic-clonic; and
- Symptoms may include convulsions, staring, muscle spasms and falls.*



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Seizure Types, cont'd

Partial Seizures:

- Involve only part of the brain;
- Common types include simple partial and complex partial; and
- Symptoms relate to the part of the brain affected.*



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Seizure Types, cont'd

Absence Seizures

Common signs and symptoms:

- Pause in activity with blank stare;
- Brief lapse of awareness;
- Possible chewing or blinking motion;
- Usually lasts 1 to 10 seconds;
- May occur many times a day; and
- May be confused with:
 - Daydreaming
 - Lack of attention
 - Attention Deficit Disorder (ADD).*



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Seizure Types, cont'd

Absence Seizures, cont'd

- No first aid is required!
- Observation and safety considerations should be included in student's seizure action plan.*
- Report incident to the school nurse according to school/district policy or procedure.



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Seizure Types, cont'd

Simple Partial Seizures

- Full awareness maintained;
- Rhythmic movements (isolated twitching of arms, face, legs);
- Sensory symptoms (tingling, weakness, sounds, smells, tastes, feeling of upset stomach, visual distortions);
- Psychic symptoms (déjà vu, hallucinations, feeling of fear or anxiety, or a feeling they can't explain);
- Usually lasts less than one minute; and
- May be confused with acting out, mystical experience, psychosomatic illness.



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Seizure Types, cont'd

Complex Partial Seizures

- Awareness impaired/inability to respond;
- Often begins with blank dazed stare;
- AUTOMATISMS (repetitive purposeless movements);
- Clumsy or disoriented movements, aimless walking, picking things up, nonsensical speech or lip smacking;
- Often lasts 1 to 3 minutes;
- Often followed by tiredness, headache or nausea;
- May become combative if restrained; and
- May be confused with:
 - Drunkenness or drug abuse
 - Aggressive behavior.*



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First Aid — Complex Partial Seizure

- Stay calm, reassure others;
- Track time;
- Check for medical I.D.;
- Provide privacy for the student;
- Do not restrain;
- Gently direct away from hazards;
- Don't expect student to obey verbal instructions;
- Stay with student until fully alert and aware;
- If seizure lasts 5 minutes beyond what is routine for that student or another seizure begins before full consciousness is achieved, follow emergency protocol.*



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Seizure Types, cont'd

Generalized Tonic-Clonic Seizures

Common signs and symptoms:

- A sudden, hoarse cry;
- Loss of consciousness;
- A fall;
- Convulsions (stiffening of arms and legs followed by rhythmic jerking);
- Shallow breathing and drooling may occur;
- Possible loss of bowel or bladder control;
- Occasionally skin, nails, lips may turn blue;
- Generally lasts 1 to 3 minutes; and
- Usually followed by confusion, headache, tiredness, soreness, speech difficulty.*



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First Aid — Generalized Tonic-Clonic Seizure

- Stay calm.
- Time the duration of the seizure activity (start and stop time);
- Check for epilepsy or seizure disorder I.D. (bracelet, necklace);
- Provide privacy for the student;
- Protect student from possible hazards (chairs, tables, sharp objects, etc.);
- Turn student on his or her side;
- Cushion head;
- After the seizure, remain with the student until awareness of surroundings is fully regained;
- Provide emotional support; and
- Document seizure activity.*



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Status Epilepticus

- Continuous state of seizure activity, or prolonged seizures that occur in a series;
- Medical emergency; and
- Most common in the very young and very old.*



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DO NOT!!

- DO NOT put anything in the student's mouth during a seizure
- DO NOT hold down or restrain
- DO NOT attempt to give oral medications, food or drink during a seizure.*



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Seizure Triggers or Precipitants

- **Flashing lights** and **hyperventilation** can trigger seizures in some students with epilepsy.
- Factors that might increase the likelihood of a seizure in students with epilepsy include:
 - Missed or late medication (#1 reason)
 - Stress/anxiety
 - Lack of sleep/fatigue
 - Hormonal changes
 - Illness
 - Alcohol or drug use
 - Drug interactions (from prescribed or over the counter medicines)
 - Overheating/overexertion
 - Poor diet/missed meals.*



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When is a Seizure an Emergency?

- First time seizure (no medical ID and no known history of seizures);
- Convulsive seizure lasting more than 5 minutes, unless otherwise specified on the student's seizure action plan;
- Repeated seizures without regaining consciousness;
- More seizures than usual or change in type;
- Student is injured, has diabetes or is pregnant;
- Seizure occurs in water; and
- Normal breathing does not resume.

*Important note: Follow seizure emergency definition and protocol as defined by the healthcare provider in the seizure action plan.**



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Important Considerations

- Students may lose control of their bowel and bladder during a seizure. They may also vomit.
- Safe and supportive considerations:
 - Provide privacy;
 - Maintain standard precautions; and
 - If student experiences respiratory distress, provide first aid and perform CPR (cardiopulmonary resuscitation), if indicated.



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Epilepsy Seizure Types and Symptoms

Generalized Seizures (Produced by the entire brain)	Symptoms
1. "Grand Mal" or Generalized tonic-clonic	Unconsciousness, convulsions, muscle rigidity
2. Absence	Brief loss of consciousness
3. Myoclonic	Sporadic (isolated), jerking movements
4. Clonic	Repetitive, jerking movements
5. Tonic	Muscle stiffness, rigidity
6. Atonic	Loss of muscle tone*



[*http://www.webmd.com/epilepsy/guide/types-of-seizures-their-symptoms](http://www.webmd.com/epilepsy/guide/types-of-seizures-their-symptoms)
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Epilepsy Seizure Types and Symptoms, cont'd.

Partial Seizures (Produced by a small area of the brain)	Symptoms
1. Simple (awareness is retained) a. Simple Motor b. Simple Sensory c. Simple Psychological	a. Jerking, muscle rigidity, spasms, head-turning b. Unusual sensations affecting either the vision, hearing, smell taste, or touch c. Memory or emotional disturbances
2. Complex (Impairment of awareness)	Automatisms such as lip smacking, chewing, fidgeting, walking and other repetitive, involuntary but coordinated movements.
3. Partial seizure with secondary generalization	Symptoms that are initially associated with a preservation of consciousness that then evolves into a loss of consciousness and convulsions.



[*http://www.webmd.com/epilepsy/guide/types-of-seizures-their-symptoms](http://www.webmd.com/epilepsy/guide/types-of-seizures-their-symptoms)
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The Impact on Learning and Behavior

- Seizures may cause short-term memory problems;
- After a seizure, coursework may have to be re-taught;
- Seizure activity, without obvious physical symptoms, can still affect learning;
- Medications may cause drowsiness, inattention, concentration difficulties and behavior changes; and
- School difficulties are not always epilepsy-related.*



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Treatment Rationale

Type of treatment depends on:

- Frequency of seizures
- Severity of seizures
- Age
- Overall health
- Medical history
- Other*



*<http://www.webmd.com/epilepsy/guide/treating-epilepsy>
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Medication Administration

School nurses and school medical advisors may provide training in medication administration to school staff, according to the [Regulations of State Agencies - Administration of Medications by School Personnel and Administration of Medication During Before- and After-School Programs and School Readiness Programs](#).

This includes medications that are:

- | | |
|-------------|------------------|
| 1. Oral | 2. Topical |
| 3. Inhalant | 4. Intranasal |
| 5. Rectal | 6. Intramuscular |



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Medication Administration

The following applies to all medication administration in this training:

- Follow the manufacturer's instructions for all medications;
- Adhere to standard precautions;
- Obtain a provider's order and parent's authorization prior to administration of all medications and treatments for seizure disorders; and
- Abide by you local district policy and procedures for medication administration and emergency responses.



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Principles of Safe Administration of Medication Administration

- Safe handling and storage of medications;
- Documentation;
- Specific information related to each student's medication;
- Student's medication plan;
- Name and generic name of the medication (including, indications for medication, dosage, routes, time and frequency of administration, therapeutic effects of the medication, potential side effects, overdose or missed dose of the medication); and
- When to implement emergency interventions.



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Recommendation

- CPR; and
- First-aid training

(Note: CPR and first aid training are not mandated in Public Act 15-215)



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Emergency Medication: Rectal

- Requires written authorization of a student's parent or guardian, and the written order of a physician licensed under chapter 370 for the purposes of this Public Act;
- Requires calibration by pharmacist (pharmacist will lock in place the correct dosage on the syringe); and
- Used in acute or emergency situations to stop a seizure that will not stop on its own.*



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Emergency Rectal Antiepileptic Medication: Example Diastat

- Diazepam Rectal Gel is a controlled drug substance and should be administered no more frequently than every five days and no more than five times a month.
- Diazepam rectal gel causes central nervous system (CNS) depression.
- Patients need to be advised against operating machinery, driving a motor vehicle, or riding a bike until they no longer feel the effects of the medication.
- Diazepam should not be used with alcohol or other CNS products that cause respiratory or CNS depressant effects.
- Diazepam rectal gel is not recommended for use in children under 6 months of age.*



www.diastat.com
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Emergency Rectal Antiepileptic Medication (see Diastat AcuDial Handouts)



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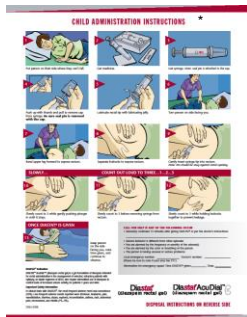
Inspecting Diastat AcuDial™ (See Handout)

- Step 1: Holding syringe in one hand with large end of oval pointing up and down. Place index finger in contact with cap to apply counter force when cap is opened.
- Step 2: Using the opposite hand grasp the cap firmly with your index finger, applying pressure to the seal pin to hold it in place.
- Step 3: Apply downward force with your thumb to create an opening 2/8" to 3/8" to view base of syringe tip and inspect for crack. Adjust angle to give best view of syringe tip.
- Step 4: While maintaining pressure on the seal pin, apply an upward force to close the cap. Rotate the syringe 180 degrees and repeat steps 3 and 4.*



www.diastat.com
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Emergency Rectal Antiepileptic Medication (see Diastat AcuDial Handouts)



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Emergency Medication: Intranasal

Intranasal medication:

- Follow the manufacturer's instructions for the medication; provider's order for proper administration; and your district's policy and procedures.

General Information:

- Prior to using the intranasal route of administration, inspect nostrils for significant amounts of blood or mucous discharge and remove via suctioning for proper absorption.
- Deliver half of the medication dose up each nostril.
- Do not use more than 1 ml of medication per nostril. If a higher volume is required, apply it in two separate doses allowing a few minutes for the initial amount to absorb.
- Be aware that there is approximately 0.1 ml of dead space in the mucosal atomization device (MAD). It is important to make allowances for this dead space when calculating the volume to be administered.*



*Henry County Health Center
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Medication: Intranasal

General Procedure:

- Using a 1 ml or 3 ml syringe and needle, draw the appropriate amount of medication into the syringe.
- Remove the needle and place the mucosal atomization device (MAD) tip onto the syringe. The MAD is a luer lock device and twists into place.
- Use your free hand to hold the crown of the student's head stable. Place the tip of the MAD snugly against the nostril aiming slightly up and outward (toward the top of the ipsilateral ear).



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Medication: Intranasal

General Procedure:

- Briskly compress the syringe plunger and deliver approximately half of the medication.
- Move the device over to the opposite nostril and administer the remainder of the medication as before.
- If an amount greater than 1 ml per nostril is needed, wait 2–3 minutes and administer the remaining medication.



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Follow-up and Reporting Procedures



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Follow-up and reporting procedures

- Emergency medical care (911) must be activated immediately if administration of Rectal Diastat occurs.
- Follow-up diagnosis and care by medical professionals is important.
- Emergency administration of rectal anti-seizure medication must be reported immediately or as soon as possible to the school nurse or school nurse supervisor and the student's parent or guardian.



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Follow-up and reporting procedures, cont'd.

- Follow your school district's policy and procedures for documentation and reporting.
- Documentation must be:
 - completed and maintained for individual students on forms provided by the school district;
 - submitted to the school nurse at the earliest possible time but not later than the next school day;
 - completed for every student who receives rectal antiseizure medication.



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Monitor Effectiveness of Training

- Ensure periodic assessments of the effectiveness of the qualified school employee's competency to administer antiepileptic medication:
 - Monthly reviews by the school nurse; and
 - Annual training facilitated by the school nurse or school medical advisor.



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Monitoring Effectiveness of School District Plan and Procedures

- Ensure periodic assessments of the effectiveness of the school district plan and procedure. Assessments should occur:
 - at least annually with the school district team;
 - after each emergency event involving the administration of medication to determine the effectiveness of the process, why the incident occurred, what worked and did not work in the district plan and procedures; and
 - include medically accurate, research-based practices in the annual review of the plan and procedures.



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Handling, Storage and Disposal

- Handling, storage and disposal of antiepileptic **and** controlled drugs shall be in accordance with your school district's policy and procedures.
- Diastat is a controlled drug.



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Privacy and Confidentiality

- When determining whether personally identifiable information from student health records maintained by the educational agency or institution may be disclosed, school officials at institutions subject to FERPA should refer to FERPA and its requirements.
- Family Educational Rights and Privacy Act (**FERPA**)



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Applicable Laws

- Public Act 15-215 An Act Concerning Various Revisions and Additions to the Education Statutes.
<https://www.cga.ct.gov/2015/act/pa/pdf/2015PA-00215-R00HB-07023-PA.pdf>
- State of Connecticut Regulations - Administration of Medications by School Personnel and Administration of Medication During Before- and After-School Programs and School Readiness Programs
http://www.sde.ct.gov/sde/lib/sde/PDF/deps/student/health/Medication_Administration_Regs.pdf



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Applicable Laws

- OSHA :Standard Precautions (Occupational Safety and Health Administration)
<https://www.osha.gov/SLTC/etools/hospital/hazards/univpreo/univ.html>
- FERPA and HIPAA (U.S. Department of Health and Human Services)
http://www.hhs.gov/ocr/privacy/hipaa/faq/ferpa_and_hipaa/
- State of Connecticut Regulations - Administration of Medications by School Personnel and Administration of Medication During Before- and After-School Programs and School Readiness Programs
http://www.sde.ct.gov/sde/lib/sde/PDF/deps/student/health/Medication_Administration_Regs.pdf



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Training Handouts

1. Diastat Child Administration Instructions
2. Diastat Inspection Instructions
3. Sample Individual Student's Emergency Seizure Action Plan*



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Online Resources: Diastat Administration

- Diastat AcuDial <http://www.diastat.com/how-to-administer>
- [Diastat Administration](http://www.youtube.com/watch?v=R6gVnyi34_g)
https://www.youtube.com/watch?v=R6gVnyi34_g



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References

- Centers for Disease Control and Prevention. Standard Precautions. <http://www.cdc.gov/HAI/settings/outpatient/basic-infection-control-prevention-plan-2011/fundamental-of-infection-prevention.html>
- Diastat AcuDial <http://www.diastat.com>
- Epilepsy Foundation Information and Referral www.epilepsyfoundation.org
- WebMD <http://www.webmd.com>
- Henry County Health Center. <http://www.hchc.org/page.aspx?id=1308>



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