

Epilepsy and Updates in Rescue Medication Therapies

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CREDITS

Managing Students with Seizures : The Importance of School Nurses an online education program by the National Epilepsy Foundation, 11/2017

Using Rescue Therapies In Epilepsy Care an addendum to the online school nurses program by the National Epilepsy Foundation 11/2018

Advocating for IEPs and 504s for Students with Epilepsy an addendum to the online school nurses program by the National Epilepsy Foundation 11/2018

Rescue Therapies in Epilepsy a Webinar by the National Epilepsy Foundation, 10/7/2019

LEGAL DISCLAIMER



This presentation is an overview of some rescue therapies by the Epilepsy Foundation of Michigan and does not constitute medical advice. This module serves as supplemental education and does not take the place of a prescribing provider's orders or instructions for an individual patient.

Using Rescue Therapies in Epilepsy Care



PROGRAM GOAL



By the end of this presentation, participants will gain a better understanding of rescue medication therapies for seizures and how to incorporate the use of these meds in schools with seizure planning

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PROGRAM OBJECTIVES

By the end of this presentation, participants will:

- Know the various types of rescue therapies available in epilepsy and their proper use and administration
- Be able to determine how to incorporate rescue therapies in a seizure plan for schools to use
- Incorporate accommodations in 504/IEP that will enable non-licensed personnel and schools without school nurses to follow a parent /physician collaborated seizure plan and administer rescue medications and recovery as ordered



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A graphic of a lightbulb where the glass part is filled with various colorful icons representing technology, communication, and education. The base of the lightbulb is black.

RESCUE THERAPIES: THE BASICS

WHAT ARE RESCUE THERAPIES/MEDICATIONS?



- Seizure medications intended for intermittent or "as needed" use
 - Does not take the place of daily seizure medications.
- Not intended to take place of emergency medical care
- Works in brain quickly – can stop seizures or lessen their severity quickly
- Intended for use outside of hospital setting

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RESCUE THERAPIES FOR "AS NEEDED" USE

- To stop cluster seizures or acute repetitive seizures
- To stop seizures lasting longer than usual
- Prevent progression to established status epilepticus
- When seizures occur different from usual type/pattern
- For breakthrough seizures during high-risk times (medicine changes, illness & missed daily medicine)
- To prevent emergencies

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WHEN ARE RESCUE THERAPIES NEEDED?

Specific instructions on when to use therapies will vary for each person and depend on type of therapy and types of seizures experienced



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HOW ARE RESCUE MEDICATION / TREATMENTS GIVEN?

- Rectal
- Intranasal
- Buccal
- Sublingual



***Magnet swipe for vagus nerve stimulation

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WHY RESCUE MEDICATIONS IN SCHOOLS?

- Prevent more serious life threatening Status epilepticus, prolonged seizures and possible even death
- **Designed for administration by non-medical personnel (medical license not required to administer, teachers and school personnel can administer if trained)**
- Epilepsy Foundation's Professional Advisory Board agrees non-medical personnel can safely administer rescue medications



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BEFORE USING A RESCUE THERAPY

Parents and School personnel must -

- Know student's typical seizure type and pattern
- Recognize atypical seizures
- Collaborate with health care team:
 - Need for rescue therapy
 - Instructions and next steps
 - Need for EMS
- **Develop Seizure Action or Response Plan i.e. SAP)**



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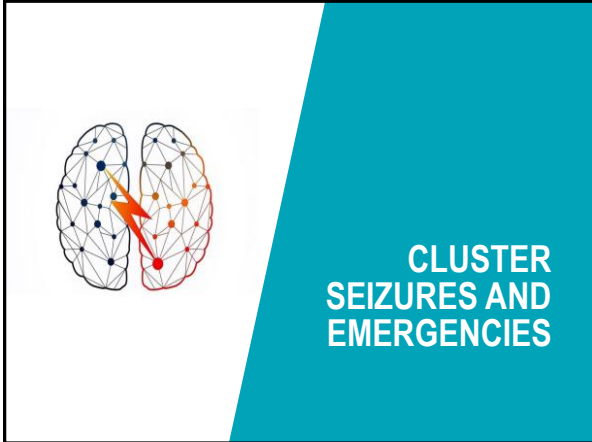
CARE AFTER USING RESCUE MEDICATION (RECOVERY)

- Can be done in schools (accommodation)
- Maintain student's safety
- Check airway, breathing & circulation
- Side effects of benzodiazepines
 - Sedation, disorientation, confusion, amnesia
 - Fatigue, weakness, dizziness, unsteady walking
 - Rare respiratory depression
- **Follow Seizure Action Plan**
- **Call EMS (911) if indicated by student's situation or seizure action plan**




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WHAT ARE CLUSTER SEIZURES?

- Part of how epilepsy can be expressed
- Also called acute repetitive seizures, bouts of seizures
- No clear consensus on terms & definitions between people with epilepsy, families & caregivers¹
- Self-reported clusters in 29% of people in a seizure diary study - defined as 3 or more seizures in 24 hours²
- Can be a precursor to status epilepticus.




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WHAT IS STATUS EPILEPTICUS?

Convulsive

- Active part of tonic-clonic seizure lasts 5 minutes or longer
- Second seizure without recovering consciousness from first seizure.
- Repeated seizures for 30 minutes or longer



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WHAT IS STATUS EPILEPTICUS?

Nonconvulsive

- Long or repeated absence or focal seizures
- Persistent confusion, not fully aware
- Harder to recognize as symptoms are more subtle
- May be hard to separate seizure symptoms from recovery period
- No consistent time frame on when nonconvulsive seizures are an emergency

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STATUS EPILEPTICUS

How Often Does Status Epilepticus Occur?



- Incidence is highest in children (<10 yrs) and older adults (> 60 yrs)³
- 50,000-150,000 Americans develop status epilepticus each year⁴
- This is the first seizure in 12% of people!
- Mortality from status epilepticus varies^{4,5}
 - 3% in children
 - Up to 30% in adults

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**USING
RESCUE
THERAPIES**

DRUG PROPERTIES

Properties of Ideal Drug for Rescue Therapy



- Effective against all seizure types
- Safe at usual therapeutic doses
- Potent in small volumes
- Quick, easy & safe to administer
- Rapid onset of action within minutes
- Long duration of action
- Few or no monitoring requirements

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RESCUE THERAPIES

How Fast Do They Begin Working?

Route of Administration	Delay Time for Action
Intravenous route	30-60 seconds
Intranasal route	1-5 minutes*
Sublingual route	3-5 minutes
Intramuscular route	10-20 minutes
Rectal route	5-30 minutes
Ingestion	30-90 minutes
VNS	Potential abortive treatment

*Under development

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OPTIONS FOR RESCUE THERAPIES



- Diastat® AcuDial™ (FDA approved for ages 2 and up)
- Intranasal midazolam (Nazilam for 12 years old and up)
- Intranasal diazepam (Valtoco for 6 years old and up)
- Buccal or Sublingual Ativan, Klonopin, Diazepam

• <https://youtu.be/zzEqjpl9IY>

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INTRANASAL MEDICINES (VALTOCO AND NAYZILAM)

Advantages

- Rich blood supply gives direct route into blood stream
- Rapid absorption
- Rates of absorption and plasma concentrations comparable:
 - IV
 - Better than SQ and IM
- Easy to use, convenient, safe

Disadvantages

- Special delivery apparatus
- Consider head position
- Possible irritation of respiratory tract
- Needs patient cooperation
- Needs patent airway
- Volume limitations to each nares
- Potential for drainage

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Nayzilam(FDA Approved 2020)

Intranasal Midazolam (Nayzilam[®])

Follow your Seizure Action Plan and prescription to confirm drug, dose, and how to give

- Indicated for acute treatment of intermittent, stereotypic episodes of frequent seizure activity, such as seizure clusters, acute repetitive seizures,
 - Events are distinct from a person's usual seizure pattern
 - Approved for use in people with epilepsy 12 years of age and older
- Able to be given by non-medical people
- Each spray for one time use, 5mg/0.1ml spray
- Second spray used if seizure persists after 10 min

Side Effects

- Sleepiness
- Headache
- Nasal discomfort
- Runny nose
- Throat irritation

Valtoco (FDA approved 2020) Intranasal Diazepam

- Supplied in 5mg, 7.5mg or 10mg Diazepam in 0.1ml dosage
- prescribed to help stop periods of increased seizures or [seizure clusters](#)
- Approved for adults and children age 6 years and older.
- VALTOCO 5 mg and 10 mg doses are administered as a single spray IN into one nostril. Administration of 15 mg and 20 mg doses requires two nasal spray devices, one spray into each nostril. A second dose can be given after 4 hours
- Available through Maxor Specialty Pharmacy only
- Most common adverse reactions (at least 4%) were somnolence, headache, and nasal discomfort
- no more than one episode every five days and no more than five episodes per month.

SUBLINGUAL OR BUCCAL ADMINISTRATION

Consult student's SAP and prescription to confirm drug, dose, route and administration orders

- **When to administer**
 - Avoid giving buccal or sublingual during loss of awareness
 - Can be given between seizures
- **How to administer**
 - With gloved hands, use gauze pad to dry cheek & gum
 - Place tablet in pocket between cheek & gum or under tongue as directed
 - Gently rub to promote absorption
 - Observe response, provide care & comfort
 - Consult action plan for postictal care and when to notify parent or provider
 - Call 9-1-1 if directed

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VAGUS NERVE STIMULATION THERAPY (VNS)

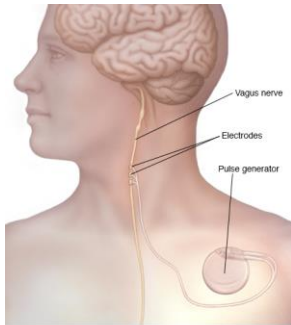


- Approved for treatment for chronic epilepsy when medicines don't work, surgery doesn't work or not feasible
- **Magnet** - form of intervention to abort seizure
 - Used for any seizure type
 - Provides on-demand stimulation
- **To stop seizure:** swipe magnet over generator implanted in chest, count 1-1,000-1,
- **To stop stimulation:** tape magnet over generator

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VAGUS NERVE STIMULATION



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What's the plan?

SEIZURE ACTION PLANS

SEIZURE ACTION/HEALTH PLAN (SAP)

A comprehensive plan of action authorized by the parents or guardians, physicians, and staff in the event of a seizure or seizure activity. SAP's instruct School personnel on what to do when a student has a Seizure.


- Not a stand-alone legal document
- **MUST** be added to an IEP or 504 plan for it to be part of the legal document

Advocating for IEPs and 504s

CREATING A SEIZURE ACTION PLAN

- Parent/guardian should complete and sign questionnaire regarding seizure history
 - Include seizure types, duration, triggers, medications and side effects, surgeries, implants (VNS), behaviors before, during, and after seizure
- Medical team:
 - Clarify treatment of student
 - Response to seizure plan formed
 - Contact information
 - When to call for medical assistance (911)
 - Rescue medications – how and when to administer


Advocating for IEPs and 504s




**USE OF AN IEP / 504
FOR MEDICAL
ACCOMMODATIONS**

WHAT KIND OF SUPPORT DOES THE STUDENT NEED? IEP?

- IEP or Individual Education Program is the design of a qualifying student's education program.
 - An ongoing arrangement between family and school
- Every component is a team decision
- There are 13 disability areas
 - Epilepsy falls under "Other Health Impaired"
- Each qualifying area must have measurable goals
 - Areas can be both educational and functional (which can include medical)
- Goals are written to assist student in learning and improving skills adapted to meet their needs




Advocating for IEPs and 504s for Students with Epilepsy



WHO DEVELOPS THE IEP?

- An IEP team is comprised of the following:
 - Student's parents
 - At least one regular education teacher (if some services occur in a regular education classroom)
 - One special education teacher
 - A person knowledgeable of student's needs (**Can include district or school nurse**)
 - Local Education Agency (LEA) representative of public school system (public & charter) must be present. LEA needs to be well-informed about both general & special education programs
 - Teacher and/or evaluator must share all evaluation results and ongoing data

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Student Name:						IEP Date:	
Supplementary Aids and Supports							
Supports and Modifications to the Environment, Behavior Training Needs, Social Interaction Supports for the Student, Health-Related Needs, Physical Needs, Transitioning Times, Assistive Technology, Training Needs, Guidance							
Area	Aids or Supports	Frequency/Conditions/Circumstances	Location/Setting	Start Date (if different from IEP)	End Date (if different from IEP)		
Student Name:						IEP Date:	
Personal Care Services							
Does the student have a chronic condition(s) that requires Personal Care Services (identified below) to enable him to accomplish Activities of Daily Living (ADL) in the area(s) checked here: <input type="checkbox"/> Yes <input type="checkbox"/> No							
		Time, Frequency, Conditions, Circumstances	Location/Setting				
<input type="checkbox"/>	Eating/Feeding/M meal Preparation						
<input type="checkbox"/>	Respiratory Assistance						
<input type="checkbox"/>	Toileting/Maintenance Continence						
<input type="checkbox"/>	Mobility/Positioning, Ambulation, Transferring						
<input type="checkbox"/>	Bathing/Dressing/Grooming/Skin-Care/Personal Hygiene						
<input type="checkbox"/>	Assistance with Self-Administered Medications						
<input type="checkbox"/>	Redirection & Intervention for Behavior						
<input type="checkbox"/>	Health-Related Functions (via hands-on Assistance/Supervision, Coaching)						
<input type="checkbox"/>	Intervention for Seizure Disorder						

Student Name:		IEP Date:
Consideration of Special Factors		
a)	Does . have behavior which impedes his learning or the learning of others?	<input type="checkbox"/> Yes <input type="checkbox"/> No
b)	Does . have limited English proficiency?	<input type="checkbox"/> Yes <input type="checkbox"/> No
c)	Does . have blindness or visual impairment?	<input type="checkbox"/> Yes <input type="checkbox"/> No
d)	Did you consider . 's communication needs?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Is . deaf or hard of hearing?		<input type="checkbox"/> Yes <input type="checkbox"/> No
a)	The IEP Team has considered whether . needs Assistive Technology devices and services in order to progress toward his goals and objectives and determined that:	
1. <input type="checkbox"/> Assistive Technology is necessary.		
2. <input type="checkbox"/> It has not yet been determined whether . needs AT in order to progress toward his IEP goals and objectives. The Team plans to make this decision in the following way:		
3. <input type="checkbox"/> Assistive Technology is not necessary at this time.		
f)	Does . have health, physical, and/or medical issues that may impact learning?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
g)	Does . have any perceptual, motor, or mobility concerns, such as gross and fine motor coordination, balance, and limb/body mobility that impedes learning.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>severely impaired</i>

Student Name:						IEP Date:	
Supplementary Aids and Supports							
Supports and Modifications to the Environment, Behavior Training Needs, Social Interaction Supports for the Student, Health-Related Needs, Physical Needs, Transitioning Times, Assistive Technology, Training Needs, Guidance							
Area	Aids or Supports	Frequency/Conditions/Circumstances	Location/Setting	Start Date (if different from IEP)	End Date (if different from IEP)		
Student Name:						IEP Date:	
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		Time, Frequency, Conditions, Circumstances	Location/Setting				
<input type="checkbox"/>	Eating/Feeding/M meal Preparation						
<input type="checkbox"/>	Respiratory Assistance						
<input type="checkbox"/>	Toileting/Maintenance Continence						
<input type="checkbox"/>	Mobility/Positioning, Ambulation, Transferring						
<input type="checkbox"/>	Bathing/Dressing/Grooming/Skin-Care/Personal Hygiene						
<input type="checkbox"/>	Assistance with Self-Administered Medications						
<input type="checkbox"/>	Redirection & Intervention for Behavior						
<input type="checkbox"/>	Health-Related Functions (via hands-on Assistance/Supervision, Coaching)						
<input type="checkbox"/>	Intervention for Seizure Disorder						

Student Name: _____ **IEP Date:** _____

Programs and Services

Related Services with General Education and/or Special Education Programs
Direct Service: the primary mode of service is directly working with the student. There may be occasional consultation with others.
Consultative Service: the primary mode of service is working with the teacher(s) and others having daily contact with the student. Direct service with the student is occasional.

School Year: 2010-11 (From Date) To Date: School Year: 2011-12 (Grade)

Related Services	Start Date (if different from IEP)	End Date (if different from IEP)	Service Mode	Minutes		Sessions		Frequency	Setting within Location
				Low Min.	High Min.	Low Number	High Number		
5th Grade <i>Handwritten notes</i>			<input type="checkbox"/> Direct <input checked="" type="checkbox"/> Consultative	0	0	0	0		

Programs/Departmentalized	Start Date	End Date	LRE/IFTE Calculation Area				Total MinWk	Bldg/Location
			SE Setting		GE Setting			
			Low MinWk	High MinWk	Low MinWk	High MinWk		
<input type="checkbox"/> Y <input type="checkbox"/> N			0	0	0	0		
SE FTE: 0			GE FTE: 0		Total FTE: FTE as of 02/09/2011			

Does the student require a reduced schedule? Yes No


Does the student receive Specialized Transportation? Yes No *Med Ad Administration*

Is there a need for placement with a teacher with an endorsement in a particular impairment category? Yes No


Is a Teacher Consultant with endorsement in the student's impairment needed to support the resource program teacher? Yes No

DELEGATION ISSUES: RESCUE MEDICATIONS


- Provide complete care for students who need rescue medications:
 - If school nurse or student's parents are unavailable, schools should have plans for delegation of rescue therapies to another staff member (Michigan law Section 380.1178 public act 451)
 - If a seizure rescue medication can not be delegated to an unlicensed person, plans must address who & how the prescribed rescue medication will be administered


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DELEGATION ISSUES: RESCUE MEDICATIONS



- School nurse & administration should be aware of the applicable laws & policies of their state & school district (i.e. Michigan - REVISED SCHOOL CODE Act 451 of 1976, Sec. 380.1178 Administration of medication to pupil; liability; school, MDE Model Policy and Guidelines for Administering Medications to Pupils at School)
- Education of personnel able to give seizure rescue medications should be done (i.e. Michigan by licensed medical personnel, 4 hr. medication administration class guidelines)
- Online and in-person education are available from local EF of Michigan.


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RESCUE MEDICATIONS

Access to Rescue Medication in Schools and Related Settings

- Epilepsy Foundation supports allowing trained, non-medical personnel to administer rescue medications in schools, to ensure children living with epilepsy have:
 - Appropriate & timely access to lifesaving seizure medication
 - Access to full range of school & related experiences in least restrictive environment

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ADVOCACY RESOURCES



- Epilepsy Foundation:
 - Will assist with advocating for access to rescue medication in schools;
 - Has resources to support state legislation that would allow trained, non-medical personnel to administer rescue medication in schools;
 - Will support outreach to board of nursing, school boards & school
- Learn more about rescue medication advocacy & view the Foundation's position statement, recent legislation, sample letters & talking points at <http://advocacy.epilepsy.com/EmergencyMeds>

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WHAT KIND OF SUPPORT DOES THE STUDENT NEED? 504 PLAN?

- A blueprint/plan for how child will have access to learning at school
- Provides services and changes to learning environment
 - To meet the needs of child as adequately as other students (i.e. keeping them healthy , safe and in school)



Advocating for IEPs and 504s for Students with Epilepsy



WHAT KIND OF SUPPORT DOES THE STUDENT NEED? 504 PLAN?

- Two requirements to qualify:
 - Child has any disability, which can include many learning or attention issues (**Epilepsy is a qualifying disability under the ADA**)
 - Disability must interfere (**when active**) with child's ability to learn in a general education classroom
- Section 504 has broader definition of disability than IDEA
 - **Child who does not qualify for an IEP might still be able to qualify for a 504 Plan**

Advocating for IEPs and 504s for Students with Epilepsy



BUILDING A STRONG 504 PLAN

- Legal requirements for what constitutes a 504 Plan team is slightly different than an IEP team
- 504 Plan may be more appropriate for students with epilepsy who do not have impairments that significantly impede their ability to learn
- Accommodations, modifications, behavior intervention plans, **seizure action plans**, and related services (**mandatory staff education and designation**) can all be included in a 504 Plan (testing, time, requirements, etc.)

Advocating for IEPs and 504s for Students with Epilepsy



WHAT ARE RELATED SERVICES?

- Supportive and developmental services that assist a child in their school setting
- Examples:
 - Speech & language therapy
 - Counseling
 - **School health services (education , designation, hands on care recovery, monitoring)**
 - Interpreting Services
 - Occupational/physical therapy
 - Social services
 - Mobility services

Advocating for IEPs and 504s for Students with Epilepsy



504 INFORMATION FOR SEIZURE DISORDERS

Major Life Activity Affected: Learning	
Focus	Accommodation
Seizure Disorder: <input type="checkbox"/> Absence Seizures <input type="checkbox"/> Partial Complex Seizures <input type="checkbox"/> Generalized Seizures	<ul style="list-style-type: none"> Student should have continuity and provision of epilepsy care in the school setting. Students who have stable epilepsy who do not require emergency interventions should have a care plan/seizure action plan in place. Students with emergency interventions should have an Individual Health Protocol in place. Unlicensed staff must be trained by a registered nurse in epilepsy care. Medication shall be provided and maintained by parents in the school setting to be available to the student as needed. Applicable staff should be medication trained. Provision of seizure education shall be provided to staff for general information on how seizures impact academics and the symptomatology to be aware of. Standard Procedures should be reviewed to include emergency information relative to status epilepticus.
<input type="checkbox"/> Emergency Medication: <input type="checkbox"/> Rectal Diastat <input type="checkbox"/> Intranasal Versed <input type="checkbox"/> Buccal Midazolam <input type="checkbox"/> Sublingual <input type="checkbox"/> Lorazepam <input type="checkbox"/> Clonazepam <input type="checkbox"/> Other: _____	<ul style="list-style-type: none"> Emergency Medication Procedure should be embedded in an IHP to include specific step relative to the type of emergency intervention. Designated Staff should be trained in the individualized response.
<input type="checkbox"/> Vagus Nerve Stimulator (VNS)	<ul style="list-style-type: none"> Emergency Magnet Procedure should be embedded in the IHP to include directions in using a VNS magnet during seizures. All staff should be made aware of the VNS implant, how to respond and location of magnets. Students should be permitted to carry magnet on his/her person.

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504 INFORMATION FOR SEIZURE DISORDERS

<input type="checkbox"/> Ketogenic Diet	<ul style="list-style-type: none"> Access to needed food and liquids as required during the school day in order to maintain the protocol of the ketogenic diet. Parent/guardian shall provide pre-measured supplies of food and liquids to the school on a daily basis. School staff shall be trained regarding the ketogenic diet so that violations of the diet do not occur at school. As appropriate, classmates shall be given information about the ketogenic diet so that they do not share food with him/her. As appropriate, during class parties or celebrations with food, alternatives shall be arranged for student that enable him/her to partake in the celebration if s/he will be unable to eat or drink during the party time. As necessary, such alternatives may include, but are not limited to, playing a special role in the celebration, or choosing music for the party.
Communication	<ul style="list-style-type: none"> The nurse shall communicate the diagnosis, first aid steps and procedures to appropriate staff. The nurse shall be notified of seizure activity in the school setting. Parents shall be notified of seizure activity in the school setting. Parents should communicate to the nurse changes in seizure medication, seizure activity, health status or regimen. Parents shall authorize the nurse to communicate with the neurologist.
Classroom Work	<ul style="list-style-type: none"> If student has a seizure during a test, he or she will be allowed to take the test at another time without any penalty. Side effects from anti-seizure medications affect his/her ability to concentrate on schoolwork or tests; s/he may have extra time to complete assignments and tests without any penalty. Students suffering from seizures with specific triggers may need schedule accommodations to reduce seizure activity (i.e., an adjusted start time due to the need to wake up later to avoid morning seizures), s/he should not be penalized for work missed and

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504 INFORMATION FOR SEIZURE DISORDERS

Diazepam Acetate: Rectal diazepam (class of drugs to which valium belongs). Diazepam Acetate is an effective means of aborting a lengthy seizure or a cluster of seizures and was designed to avoid trips to the emergency room.

Emergency Seizure Medication: Medication used in response to seizures, often after seizures have lasted longer than 5 minutes. Delivery methods used are typically rectal, intranasal or sublingual.

Generalized seizures: Seizures that affect both sides of the brain and produce loss of consciousness for either a brief or longer period of time. Generalized seizures include absence seizures, atonic or drop seizures, and tonic, clonic, myoclonic, and tonic-clonic seizures.

Ketogenic diet: A special low-calorie, high-fat diet in which the body is placed in a state of ketosis so that it burns fat for energy instead of carbohydrates. Ketosis has been effective in providing seizure control or partial seizure control for many children.

Myoclonic seizures: Seizures in which the person experiences quick muscle contractions that usually occur on both sides of the body at the same time. They look like quick muscle jerks. Generalized seizure.

Partial seizures: Seizures in which the electrical firings of the neurons are limited to a specific area of one side of the brain. Simple partial seizures: During these seizures a person remains aware of what is going on but may be limited in how he or she can react. The person may not be able to speak, or may experience tingling or pain, visual distortions, or other symptoms that may warn of more severe seizures to come.

Seizure action plan: A plan that is designed to provide basic information about the student's seizures and treatments. A completed plan should be provided to all relevant school personnel at the beginning of the school year, when a diagnosis of epilepsy is made or when a change in health status occurs. The plan should be signed and approved by the student's treating physician.

Status epilepticus: A period of prolonged seizure activity either because of one prolonged seizure or because of a series of seizures without the person returning to baseline. Current medical definitions consider 30 minutes as the amount of time after which unintermittent seizure activity would be considered status epilepticus. It is possible that brain damage or death can result from status seizures. During status seizures, problems can arise if there is pulmonary or cardiac arrest that is not promptly treated. More often, however, serious negative consequences occur hours or days after the onset of status as a result of prolonged stress, oxygen deprivation and systemic complications such as organ failure.

Tonic-clonic seizures: The most common type of seizure (sometimes called "grand mal" seizures). They begin with a tonic phase, in which the arms and legs stiffen, and then continue with a clonic phase, in which the limbs and face jerk. During the tonic portion of a seizure, a person may have an initial vocalization followed by their breathing slowing or stopping; during the clonic portion, breathing usually returns, but may be irregular, noisy or seem labored. The person may be incontinent and may bite his or her tongue or the inside of his or her mouth during the seizure. Generalized seizure. Tonic seizures: Seizures in which the person's leg, arm, or body muscles stiffen. The person's legs may extend. The person usually remains conscious. Generalized seizure.

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504 INFORMATION FOR SEIZURE DISORDERS

	<ul style="list-style-type: none"> will be given an opportunity to make up the work. Student shall be given instruction without penalty to help him/her make up any classroom instruction missed due to epilepsy care. Student shall not be penalized for absences required for medical appointments and/or for illness related to his/her epilepsy.
Activity	<ul style="list-style-type: none"> Activity restriction and allowances should be as IAD prescribes. Alterations of physical activity may need to be accommodated if physical activity is a trigger for seizures. Student shall be permitted to participate in all school sponsored activities as managing doctor permits. Student shall be permitted to participate in all field trips with available trained staff, without requirement of parents to chaperone or attend.

Definitions:

Absence seizures: Seizures (sometimes called petit mal seizures) that are usually just a few seconds long. They happen suddenly and the person will stop what he or she is doing, and then resume it as soon as the seizure is over. They may happen many times in a day or in clusters during the day. Type of generalized seizure.

Anti-seizure medication: Antiepileptic drug. Medication used to treat seizures. Common medications include Dilantin, Keppra, Topamax, Depakote, Depakene, Lamictal, Zonegran, and Clonopin, among others.

Atonic seizures: Also called drop seizures, these seizures produce a sudden loss in muscle tone. A person's head will drop or the person will drop to the ground. Injury can occur; these seizures occur without warning. Type of generalized seizure.

Clinic seizure: Seizures in which a person's arms and legs jerk rhythmically. Clinic seizures by themselves are uncommon. Generalized seizure type.

Complex partial seizures: Seizures begin in one part of the brain and involve a loss of consciousness or impaired consciousness. May cause automatic behaviors such as lip smacking, chewing, swallowing, fidgeting, or other repetitive, stereotypic behavior.

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504 INFORMATION FOR SEIZURE DISORDERS

Vagus nerve stimulator (VNS): The VNS is similar to a pacemaker, but it stimulates the vagus nerve in the neck, instead of the heart. The VNS is usually implanted in the upper left chest or under the arm; it stimulates, on an ongoing basis, the vagus nerve, which then sends electrical impulses to the parts of the brain that affect seizures. If a person has a seizure aura or begins to have a seizure, the VNS can be swiped with a magnet to send additional electrical current to abort or minimize the seizure.

Epilepsy Foundation. (n.d.). **VNSDS: SECTION 504 PLAN FOR A STUDENT WITH EPILEPSY**. Retrieved from <http://www.epilepsy.com/learnmore/epilepsy-disorders/vagus-nerve-stimulator.pdf>

Epilepsy Foundation. (n.d.). **Developing My Seizure Plan 504**. Retrieved from <http://www.epilepsy.com/get-help/learnmore/developing-my-seizure-plan-504>

REMEMBER

- 504 Plan for students with epilepsy are as diverse as the students themselves
- No "one size fits all."
- Areas of learning such as memory, concentration, and behavior often times impacted by epilepsy but often overlooked or not addressed by a 504 plan
- Epilepsy is not simply seizure activity but a culmination of factors influencing student's life**

Advocating for IEPs and 504s for Students with Epilepsy

ONLINE RESOURCES

Epilepsy resources: www.epilepsy.com

Advocacy through IEPs & 504s: <http://wrightslaw.com/>

IDEA: <http://idea.ed.gov/>

Section 504 of the Rehabilitation Act:
<http://ww2.ed.gov/about/offices/list/ocr/504faq.html>

ADA: <https://www.ada.gov>

Advocating for IEPs and 504s



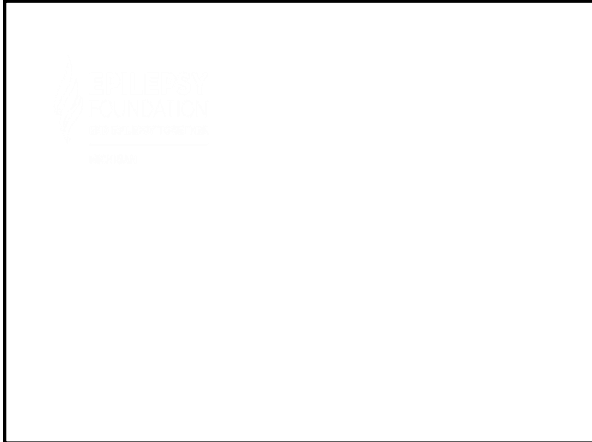


QUESTIONS?

Using Remote Transcripts in Epilepsy Care



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