

# SEIZURES AT SCHOOL

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Plano ISD

August 2015





# What is a Seizure?

- ❖ Excessive/disorderly firing of nerves
- ❖ Imbalance between nerves firing and relaxing
- ❖ Seizures can be many things, depending on...
  - **What part of the brain is affected**
  - **How much of the brain is affected**



# Epilepsy is...

- ❖ A condition of *recurrent* and *unprovoked* seizures
- ❖ “Seizure Disorder”= **Epilepsy**
- ❖ Epilepsy is common (1 in 26)



## Incidence Rate for Seizures at School

- ❖ 1:50 people under the age of 18
- ❖ 1:3 student with a developmental disability



# Dispelling Common Myths

- The tongue **cannot** be swallowed during a seizure
- Epilepsy is not contagious
- Epilepsy can begin at any age
- Most seizures are NOT medical emergencies
- Most epileptic seizures are NOT convulsive
- Medication does not stop all seizures
- Children can outgrow their epilepsy
- People with epilepsy are not necessarily developmentally delayed



# Classroom Support

- ❖ Remain **calm**
- ❖ Be supportive
- ❖ Be familiar with student's Seizure Action Plan
- ❖ Be familiar with student's emergency medication

# Special Issues to Consider



- ❖ Is student in a wheelchair/mobile?
- ❖ Keeping other students calm & safe
- ❖ “Rescue Medication”- does student have any?
- ❖ Does student have an IEP, 504, or IHP?



# Special Challenges

## ❖ Communicating with parents

- Language barrier
- Parent unwilling to share pertinent information
- Parent in denial

## ❖ Medically fragile student

## ❖ Bullying by other students



# Signs of Seizures in Children



- ❖ Short **attention blackouts**
- ❖ Sudden **falls** for no reason/unexplained **clumsiness**
- ❖ Brief periods of **unresponsiveness**
- ❖ Unusual **sleepiness**
- ❖ Repeated **unnatural movements** that look strange



## Partial Seizures

- ❖ Simple Partial
- ❖ Complex Partial
- ❖ Partial seizures can become generalized

# Current Terminology of Seizure Types

## Generalized Seizures

- ❖ Absence
  - ❖ Formerly Petit-mal
- ❖ Tonic-Clonic
  - ❖ Formerly Grand-mal



# Simple Partial Seizures

- ❖ Involves one area of the brain, but any lobe
  - Motor
    - Abnormal movements
  - Sensory
    - Strange smells or tastes; hallucinations
  - Autonomic
    - Strange feelings, change in heart rate, sweating
  - Psychic
    - Changes in thoughts or feelings
  
- ❖ Student is awake and alert
  
- ❖ Lasts 10- 20 seconds



# Complex Partial Seizure

- ❖ Starts in a small area in the brain and quickly moves to other areas
  - Blank stare
  - Unaware of surroundings, but able to move
  - Unresponsive or inappropriately responsive
  - Repetitive movements of mouth and/or hands
  - Confused speech, repetitive phrases, screaming, crying
- ❖ Student will probably not remember the seizure
- ❖ Usually lasts 30 seconds- 2 minutes



# Absence Seizure

## ❖ Simple

- Brief period of staring off into space
- Less than 10 seconds

## ❖ Complex

- Staring + movement (blinking, chewing, hand gestures)
- Less than 20 seconds

## ❖ Student unaware of what is going on

## ❖ Very easy to go unnoticed

# First Aid: Simple Partial & Absence



- ❖ **Stay calm**
- ❖ **Protect student from injury**
- ❖ **Reassure other students**
- ❖ **Time & observe the seizure**
- ❖ **Document & report**





## First Aid: Complex Partial

- ❖ Stay calm. Call for school nurse.
- ❖ **Protect** student from injury
- ❖ **Time and document** the seizure
- ❖ **Speak softly and calmly**
- ❖ **Don't** grab or hold the student down
- ❖ **Follow emergency protocol** if seizure lasts >5 minutes or is unusual for that student
- ❖ Report seizure to the parent



# Tonic- Clonic Seizures

## ❖ Convulsive seizure

### ➤ Tonic phase

- Muscles stiffen
- Student will fall to ground
- May bite tongue or cheek
- May scream

### ➤ Clonic phase

- Arms and legs jerk rapidly
- Bent elbows and knees
- Loss of bladder or bowel control as body relaxes

## ❖ Usually last 1-3 minutes

## ❖ Student is not conscious during the seizure and may be very drowsy or sleep after the seizure





# First Aid: Tonic- Clonic

- ❖ **Call for the school nurse**
- ❖ Cushion student's head and **protect** from injury
- ❖ **Turn on side** (if possible) and keep **airway clear**
- ❖ **DO NOT** put anything in their mouth
- ❖ **Time** and **observe** seizure
- ❖ **Do not** try to restrain or hold down student
- ❖ **Follow** seizure action plan or PISD emergency protocol
- ❖ Report seizure to parent





# Seizure in a Wheelchair

- ❖ Do not move the chair unless absolutely necessary for safety reasons
- ❖ Secure wheelchair, if not already
- ❖ Fasten seatbelt loosely to prevent falling out of chair
- ❖ **Support and protect head**
- ❖ Keep airway open and allow secretions to flow from mouth
- ❖ **Pad wheelchair** to prevent further injury
- ❖ Follow student's seizure action plan





# Status Epilepticus and Cluster Seizures

## ❖ Status epilepticus

- Tonic-clonic seizure lasts 5 minutes or longer
- Student has another seizure before regaining consciousness
- Repeated seizures in a 30 minute time period
- Status epilepticus is an emergency

## ❖ Cluster seizures

- Seizures are short, but occur close together
- May require emergency medication (refer to plan)

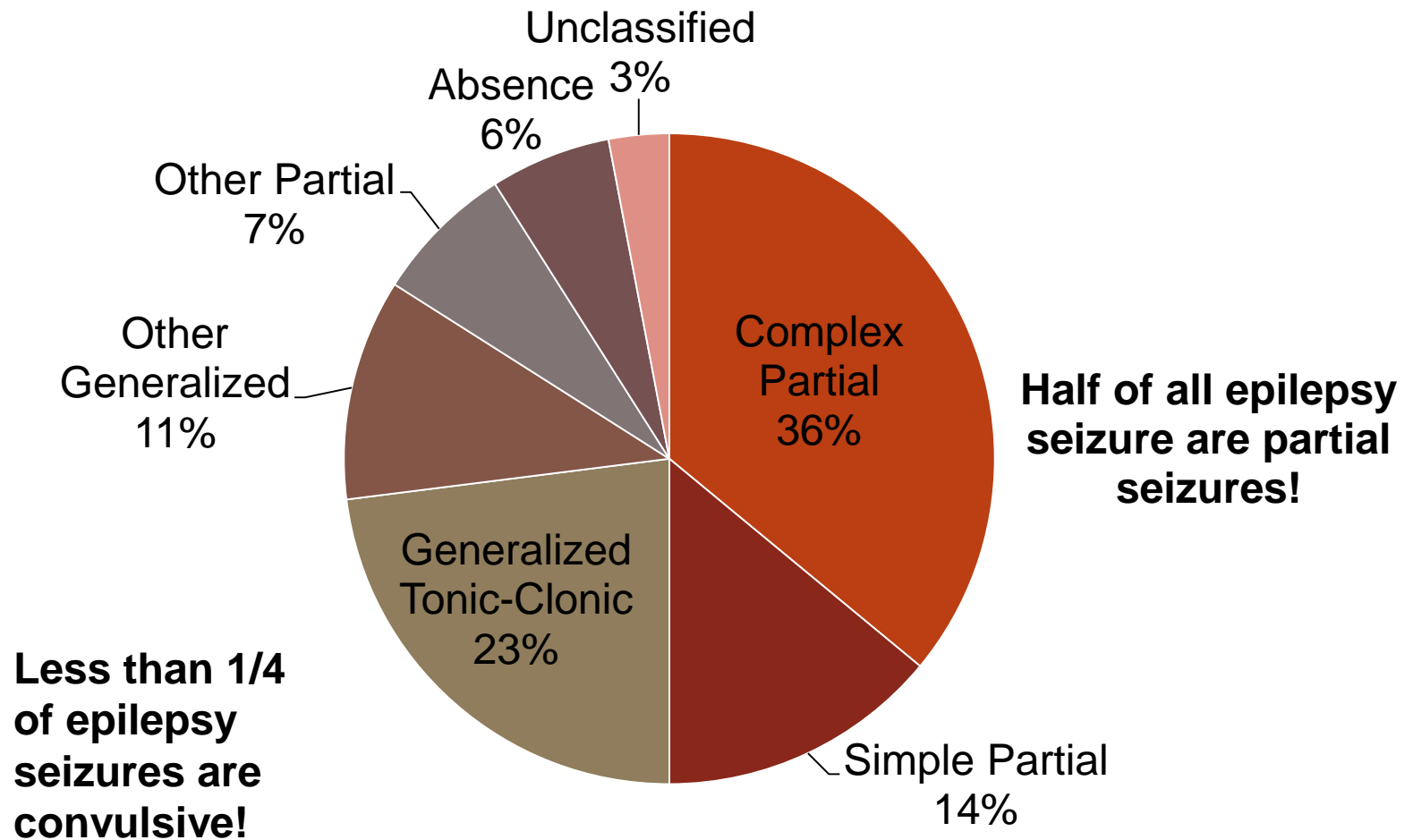
# Plano ISD

## Seizure Emergency Protocol

- ✓ Tonic-clonic seizure lasts longer than 5 minutes
- ✓ Repeated seizures without regaining consciousness
- ✓ Student is injured, has diabetes, or is pregnant
- ✓ First time seizure
- ✓ Student has breathing difficulties
- ✓ Seizure occurs in water



# Incidence of Seizure Types





# What a Seizure Can Look Like

- ❖ Fainting
- ❖ Migraines
- ❖ Behavior Disorders
  - ADHD
  - Oppositional Defiant Disorder
- ❖ Sleep Disorders
- ❖ Tourette's
- ❖ Panic Attacks
- ❖ Movement Disorders



# Seizure? or Behavior?

## SEIZURES ARE:

- **Stereotypical**
  - same behavior
  - in the same sequence
- **Paroxysmal**
  - sudden
  - Unexpected
- **Unchanged** by behavior modification

## BEHAVIORS ARE:

- Variable, **situation dependent**
- A **response** to specific situation or stimuli
- **Altered** by behavior modification techniques

**LOOK FOR A PATTERN!**



# Seizure Observation

❖ Detailed seizure reporting helps the treating physician

❖ Identifies:

- seizure triggers
- patterns
- precautions





# Observation Record



## Seizure Observation Record

Student Name:				
Date & Time				
Seizure Length				
Pre-Seizure Observation (Briefly list behaviors, triggering events, activities)				
Conscious (yes/no/altered)				
Injuries? (briefly describe)				
Muscle Tone/Body Movements	Rigid/clenching			
	Limp			
	Fell down			
	Rocking			
	Wandering around			
	Whole body jerking			
Extremity Movements	(R) arm jerking			
	(L) arm jerking			
	(R) leg jerking			
	(L) leg jerking			
	Random Movement			
Color	Bluish			
	Pale			
	Flushed			
Eyes	Pupils dilated			
	Turned (R or L)			
	Rolled up			
	Staring or blinking (clarify)			
	Closed			
Mouth	Salivating			
	Chewing			
	Lip smacking			
Verbal Sounds (gagging, talking, throat clearing, etc.)				
Breathing (normal, labored, stopped, noisy, etc.)				
Incontinent (urine or feces)				
Post-Seizure Observation	Confused			
	Sleepy/tired			
	Headache			
	Speech slurring			
	Other			
Length to Orientation				



# Seizure Triggers

- ✓ Missed or late medication (#1 trigger)
- ✓ Stress/anxiety
- ✓ Lack of sleep/fatigue
- ✓ Poor diet/missed meals
- ✓ Constipation/full bladder
- ✓ Drug interactions (antibiotics!)
- ✓ Menstruation
- ✓ Flashing lights/loud noises
- ✓ Overheating/overexertion



# Treatment for a Seizure

❖ VNS- Vagus Nerve Stimulator

❖ Oxygen

❖ Emergency Medications

- Rectal diazepam gel
- Nasal midazolam spray





# Vagus Nerve Stimulator

- ❖ Implanted device set to deliver nerve stimulation at preset intervals (programmed by neurologist)
- ❖ Additional stimulation can be delivered using the VNS magnet



## VNS: Use

- ❖ Student may wear magnet around wrist or have easily accessible on backpack



- ❖ Swipe magnet across left side of chest once
- ❖ Seizure will probably not stop immediately
- ❖ Wait 1 minute and swipe again, if needed (follow Seizure Action Plan)
- ❖ Must be trained by a Plano ISD nurse



# Oxygen

- ❖ Must be ordered by physician for use during a seizure
- ❖ Most students with oxygen have a private duty nurse with them
- ❖ Must be trained by a Plano ISD nurse
  - proper handling
  - proper set up
  - proper administration



# Diastat: Rectal Diazepam



- ❖ Rescue medication for a seizure emergency
- ❖ Must be trained by Plano ISD nurse on proper administration technique
- ❖ Seizure Action Plan will specify at what point medication is to be given





# Versed: Nasal Midazolam

- ❖ Rescue medication for a seizure emergency
- ❖ Only RNs are administering this medication due to need for close monitoring





# Seizure Preparedness at School



## ❖ Seizure Action Plan

## ❖ Updated information from parent (obtained by school nurse)

- Current medication?
- Most recent seizure?
- Emergency medications?

## ❖ Seizure Observation Record



# Seizure Action Plan

## ❖ Individualized

- Seizure/health information
- Seizure first aid/emergency response

## ❖ Prepared by: parent and physician

## ❖ Reviewed by: school nurse

## ❖ Distributed to relevant school personnel

- At beginning of school year
- Change in health status occurs

# Seizure Action Plan



School Year

## Seizure Action Plan

Bus #

Student's Name	<input type="text"/>	Date of Birth	<input type="text"/>	Grade/Teacher	<input type="text"/>
Parent/Guardian	<input type="text"/>	Phone	<input type="text"/>	Cell	<input type="text"/>
Other Emergency Contact	<input type="text"/>	Phone	<input type="text"/>	Cell	<input type="text"/>
Treating Physician	<input type="text"/>	Phone	<input type="text"/>	Fax	<input type="text"/>

Significant Medical History

Seizure Information			
Seizure Type	Length	Frequency	Description
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Seizure triggers or warning signs:

Student's response after seizure:

<p><b>Basic First Aid: Care &amp; Comfort</b></p> <p>Please describe basic first aid procedures if different than shaded box at right:</p> <p>Does student need to leave the classroom after seizure? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If YES, describe process for returning student to classroom:</p>	<p><b>Basic Seizure First Aid</b></p> <ul style="list-style-type: none"> <li>Stay calm and track time</li> <li>Keep child safe</li> <li>Do no restrain</li> <li>Do not put anything in mouth</li> <li>Stay with child until fully conscious</li> <li>Record seizure in log</li> </ul> <p><b>For Tonic-Clonic Seizure</b></p> <ul style="list-style-type: none"> <li>Protect head</li> </ul>
<p><b>Emergency Response</b></p>	



# Seizure First Aid: Review

- ❖ Basic first aid depends on type of seizure:
  - No change in consciousness (**Simple Partial**)
  - Altered Awareness (**Complex Partial** or **Absence**)
  - Loss of Consciousness/Convulsions (**Generalized Tonic-Clonic**)

# Seizure First Aid: Review



- ❖ **Stay calm!**
- ❖ Most seizures are **not** medical emergencies
- ❖ Always **time** a seizure
- ❖ Nothing in the mouth
- ❖ Don't hold down
- ❖ Follow Seizure Action Plan



# Resources

❖ Epilepsy Foundation

[www.epilepsyfoundation.org](http://www.epilepsyfoundation.org)

❖ Local affiliate

[www.epilepsy.com/texas](http://www.epilepsy.com/texas)

❖ [www.epilepsyclassroom.com](http://www.epilepsyclassroom.com)

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