



#### Mission of the Epilepsy Foundation

To lead the fight to overcome the challenges of living with epilepsy and to accelerate therapies to stop seizures, find cures, and save lives.



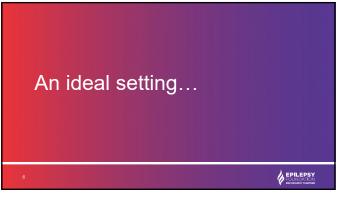
#### 4

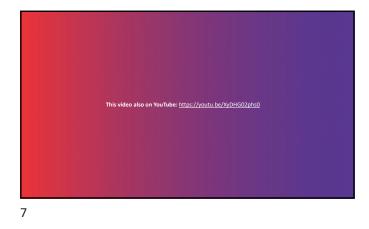
### Purpose

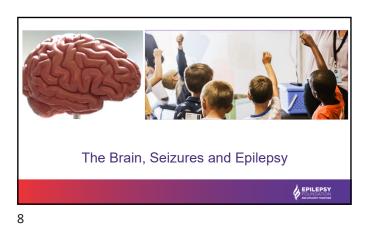
To provide a better understanding of epilepsy and how to effectively support students with seizures by:

- Creating a safe and supportive school environment
- Supporting positive outcomes
   Advocating for a student with seizures
- Understanding Mental Health and Emotion Issues







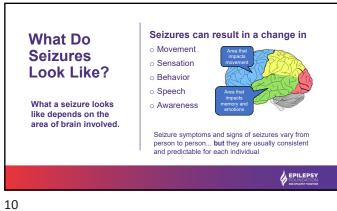


#### The Brain & Seizures

- A seizure occurs when there is a temporary change or disruption in the way the brain sends electrical signals
- During a seizure, there is a "short circuit" in the way messages are sent between brain cells
- Not everyone who has a seizure has epilepsy
- Seizures can occur with other conditions (e.g. blood sugar problems, head injury, fever)

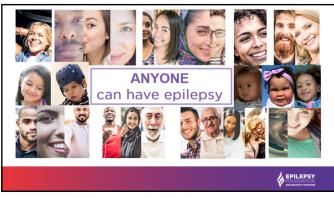
Fisher RS et al. (2017) Epilepsia, 58(4),522.





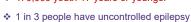
т

## 



## **Epilepsy By The Numbers**

3.4 million in the U.S. with active epilepsy
470,000 youth 17 years or younger



Nearly 14,000 children in Michigan have epilepsy

• 1 in 26 people will be diagnosed with epilepsy during their lifetime

• 1 in 10 people worldwide will have a seizure during their lifetime

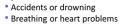
\*\*\*\*\*\*\*\*\*

#1in26

13

#### Risks & Fears Related to Seizures

- Physical injury
- Difficulty breathing
- Drowning
- Prolonged Seizure Activity
- Seizure emergencies
- Early death





- Sudden Unexpected Death in Epilepsy (SUDEP)
- Suicide

14

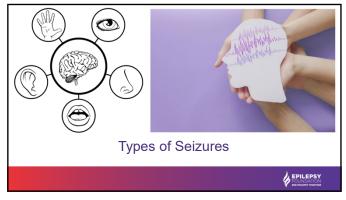
#### **Prevalence of Learning Problems**

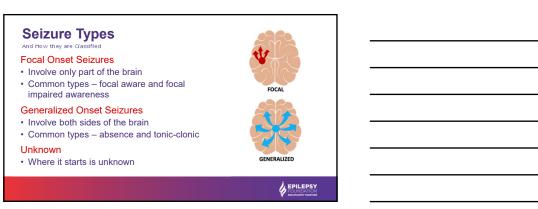
- 50% of children with epilepsy (CWE) have schoolrelated difficulties
- · 25% of CWE have a learning disability
- Risk of learning problems 3x higher than general population
- Epilepsy Foundation of MI Needs Assessment:
   64% of CWE experienced school performance
   problems related to epilepsy

#### The Spectrum of Impact

- Can range from frequent seizures and intellectual disability to full seizure control and no cognitive impact
- Most CWE fall within the normal range of IQ, but more have scores in the low-normal range than in the general population
- Cognitive difficulties may be subtle or transient and therefore not easily recognized
- Even "benign" forms of epilepsy (benign rolandic, childhood absence) are associated with learning problems – including after child has outgrown seizures

16





## Functional Seizures or Psychogenic Nonepileptic Seizures (PNES) • Behavioral events that resemble seizures

- Epileptic seizures are caused by sudden abnormal electrical discharges in the brain
- Epileptic seizures have characteristic EEG changes durin the seizure
- EEG testing shows no electrical disturbance associated with typical events during a psychogenic nonepileptic event



 PNES are caused by stressful psychological experiences or emotional trauma

(EEG)



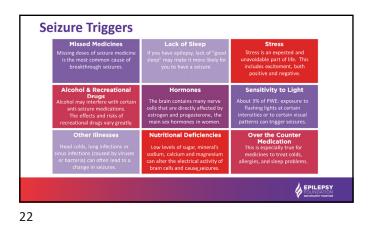


School Education and Impact Triggers & Contributing Factors in Learning

20



While every student goes through transitions as they age and enter adolescence over the course of their education, there are a number of significant changes that take place for students living with epilepsy. This can include changes in seizure patterns, treatment strategies, social and emotional effects, medication side effects, depression, mental health concerns and responsibilities for selfmanagement.



# **Contributing Factors for Learning**

- Underlying brain injury/condition
- Medication side effects
- · Effects before, during, & after seizures
- Brain injury from status epilepticus
- Absenteeism
- Poor Sleep

23

# Contributing Factors: Brain Injury / Condition • Underlying condition, such as CP, autism, intellectual disability, TBI, etc., may be primary cause of learning difficulties

However...

Important not to automatically attribute all learning problems to primary disability; some may be related to epilepsy and potentially reversible

#### **Contributing Factors: Medication Side Effects**

- Tendency to over-attribute cognitive problems to antiseizure medication side effects
- Polytherapy, rapid initiation, and high doses increase chances of cognitive/behavioral side effects
- · Every antiseizure med has potential to cause cognitive, behavioral, or psychological side effects

25

#### **Contributing Factors:** Medication Side Effects (Continued)

#### Common Side Effects:

- Impaired attention
- Drowsiness
- Slowed processing speed
- Coordination problems
- Hyperactivity
- · Mood changes (e.g. depression, irritability)

26

# **Contributing Factors:** Effects Before, During & After Seizures

- Before (preictal)
- Premonitory Symptoms (headaches, anxiety, irritability) may be distracting & cause worry about imminent seizure During (ictal)
- Impairment of consciousness leads to missed information (especially with unrecognized absence seizures) · Simple partial seizures (auras) can be distracting and may not be reported
- After (postictal)
- Confusion and sleepiness (most common)
- Psychosis, depression, muscle soreness, headache, weakness, paralysis, blindness, loss of sensation, loss of speech
- · Duration of symptoms varies (from a few minutes to several days)
- Teacher may assume student is back to normal, but subtle postictal symptoms may persist

# Contributing Factors: **Absenteeism**

- · Often due to frequent medical appointments and/or seizures
- Make sure school is not sending child home unnecessarily; sometimes child can return to class after seizure (after a brief rest)

28

# Contributing Factors: **Poor Sleep**

- Several epilepsy syndromes involve nocturnal seizures
- + Any seizure at night can reduce sleep quality and effect cognition
- Some antiseizure medications can interfere with sleep
- Sleep disorders more common in PWE
- Sleep deprivation is common seizure trigger (in addition to affecting cognition)



#### **Seizure Action Plans**

Should be available for each student with epilepsy & it should be included in the students IEP.

Provides information about:

- Seizure first aid
- Specific instructions for each student
- When a seizure may be an emergencyWhen to give rescue therapy
- Who to call
- who to call
- Helps organize information to care for those known to have seizures
- Made under the guidance of a healthcare team
- Helps you know what to do to prevent an emergency

31

#### Advocating and Tailoring Care for Your Student

SEIZURE ACTION PLAN (SAP)

e johnsten, if an length) Masilita -

#### Consider the following

- Seizure type, how long it lasted, and what happened
- Recovery period how long it lasted, what happened, safety
- Setting classroom, stairs, parking lot
- Potential for injury
- Resources
  - Staff training in seizures recognition and first aid, and rescue medicines
  - · School Nurse, MERT Team, Coaches, Aides, Office Staff
  - Seizure action plan
  - School policy

32

#### **Common Pitfalls**

Educators may assume school performance problems are due to lack of motivation

Normal IQ

Intermittent nature of epilepsy (school performance may wax and wane)

# Transient impairment during assessment may lead to under- or overestimation of abilities

 Make sure epilepsy-related variables are noted and taken into account when interpreting results

#### Strategies for Improving School Performance: **Evaluation & Accommodations**

•Request a medical management meeting and **504 plan creation** (epilepsy is a disability under the ADA – Civil right)

Request evaluation for SE services and creation of IEP (categories OHI, can be specific Leaning Disability, TBI, emotional disturbance, intellectual disability, multiple disabilities)

Test results show disability does not significantly impact learning, build up the accommodations on the 504 and request independent neuro-psych evaluation





# Conversation for Improving School Performance: **Services & Accommodations** (Continued)

Testing accommodations (e.g. notes, extra time)

- •Written notes or recording of spoken lessons
- Assistive technology (including smart phones)
- Minimizing visual or auditory distractions
- Repetition of information after seizures
- Changing schedule so that less challenging classes take place

during periods of lower functioning

37

#### **Questions for School Administration**

Access to axillary services -

- Have a school nurse or district nurse? Hours worked, responsibilities, contact number, do they handle staff education on epilepsy and how much time is given (suggest EFA online course)
- Nurse who is designated to handle medical issues? Who designates?
- Policies on medication administration (teachers, axillary staff, bus drivers), forms needed, permissions, scripts, med forms.
- 4 hour medication administration classes (state suggested) does your staff take them
- · Access to monitored post-seizure recovery area? Is this a monitored area?

38

# **Questions for School Administration** (Continued)

- Attendance Policies? Methods to accommodate child's absences without penalty
- Home bound or hospitalized students accommodations and school staff responsibility in keeping child up with program, how to request? (plan ahead in cases of VEEG, Surgery)
- · Suspension policies, acceptations for mental health issues?
- Bullying prevention methods, investigation methods, counseling for perpetrators and victims

In Conclusion						
Students with Epilepsy often need accommodations and special considerations, even if seizures are subtle or transient. Understanding a diagnosis and available supports will help guide conversation.	Multiple factors contribute to seizures, learning difficulties and individualized needs. Communication is key. Families and staff are a key contributor to a students success.	School support is modifiable. School training is available to staff (including support staff) and it is appropriate for you to request that staff understand a students needs on all levels.	Other Support: Michigan Alliance for Families and the Epilepsy Foundation of Michigan can help in guiding conversation and advocating for students with epilepsy.			

40



Supports and Services Available

41

#### Supports & Services

Monitoring for changes in behavior and mood, with early intervention requesting a Social work and school psychologist consult. Possible reation request
 Social work and school psychologist consult. Possible creation of behavioral
 intervention plan
 Disability Manifestation Determination review to prevent unfair discipline or

suspension
 1:1 ParaPro request, change in placement or hope schooling accommodations with severe

Constant contact with teachers and school staff with changes in student's meds and seizure activity/daily behavior log

#### Supports & Services (Continued)

 Mental Health – develop a working collaborative relationship (someone student can talk with), convey a caring attitude, avoid negative techniques such as punishment, sarcasm, avoid criticism and create a positive learning environment. Give extra time on assignments and tests, break down assignments into smaller sections, pair up with a student willing to help. Assist with organization, setting up schedules, study habits.

•Emotional support includes encouraging student to us anxiety-reducing techniques, allow self-calming objects, breaks, encourage open door with social worker when feeling anxious. Consider classroom setup and routines. Assign student a designated "buddy" for out of class opportunities. Allow preferential grouping for field trips. Allow break pass (with buddy) as needed, create a plan for catching up after absence or illness to decrease anxiety.

43

#### Supports & Services (Continued)

•Memory – develop a working collaborative relationship (buddy system, small workgroups, 1:1 aide or ParaPro), convey a caring attitude, avoid negative techniques such as punishment, sarcasm, avoid criticism and create a positive learning environment. Give extra time on assignments and tests, break down assignments into smaller sections, pair up with a student willing to help. Assist with organization, socialization skills.

 Understand and incorporate accommodations for educational performance affected by memory, organization, slower processing skills, etc. that can occur (pre-, inter-, and post-ictal seizure effects)

44

#### Supports & Services (Continued)

•Give advance notice of planned substitute, changes in routine, and time before upcoming transitions.

Ensure all substitute staff are aware of students IEP, 504, Seizure Action Plan
 Give instructions clearly, write down expectations.
 Provide the student with a signal if unable to clearly communicate needs without

 Provide the student with a signal if unable to clearly communicate needs without interruption to classmates.

Let students share their story, if desired.

•Limit attention activities or provide individual opportunities for presentations, reading aloud, etc.

Provide extended time on tests, different location, supports as needed.
 Encourage brain breaks, talk through behavior problems and monitor student's emotional state or frustration one-on-one.

#### Treatment

Goal of treatment is early intervention to improve coping, prevent/reduce future difficulties, such as loss of friendships, failure to reach social and academic potential, and feelings of low self-esteem.

- Evaluation from a qualified mental health professional (e.g., psychologist, psychiatrist)
- Medications SSRI and SNRI's specifically reported to not decrease seizure threshold
- School Support
- IEP/504, BMP, to include goals, interventions to address concerns in the school setting. \* Also ask for Manifestation Determination review to avoid unfair disciple or punishment

**E·SMART** 

The Arc.

Michigan

Michigan Alliance for Families

46

#### **Additional Support Services**

- Therapy/Counseling
- Cognitive Behavioral Therapy (CBT)
- Camp (for students with epilepsy)
- Psychoeducational and Support Groups
- Case Management, CMH, CSHCS
- Behavioral Health Therapy
- Play Therapy / Art Therapy
- Educational Supports (IDEA, 504), School social work, Behavioral Management, OT, ST, PT
- Health Agencies (Michigan Alliance for Families, EFM, 211, etc.)



#### **Inclusion Opportunities**

- Talk with student
- · No mimicking or posting of person during a seizure Intervene consistently
- Educate students, classrooms and school groups (assemblies, fundraisers, etc.)
- Encourage peer support
- Support Abilities Campaign
- · Support Special Observance Days
- (Purple Day for Epilepsy) Be involved



#### 49

## **Epilepsy Foundation School Resources**

- Seizure Training for School Personnel
- Take Charge Epilepsy Education Series
- Videos on Seizure First Aid, Rescue Therapies, and Seizure Action Plans
- Brochures, videos, pamphlets, fact sheets, posters
- · Available at:
  - · epilepsy.com
  - epilepsymichigan.org
  - Youtube (<u>https://www.youtube.com/c/Epilepsy</u> FoundationNational/videos)





SET INFORMATION:
epilepsy.com

Comparing
epilepsymichigan.org

24/7 Helpline:
1-800-332-1000

Here for You Helpline (MI)
1-800-377-6226



