

# SEIZURES

# 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

# 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”

# Epilepsy is More Common Than You Think

- 3 million Americans
- 315,000 students in the United States
- More than 45,000 new cases are diagnosed annually in children
- 1 in 100 people will develop epilepsy
- 1 in 10 people will have a seizure in their lifetime
- Epilepsy is more common than Cerebral Palsy, Parkinson's Disease and Multiple Sclerosis combined

# 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 can NOT swallow his/her tongue during a seizure

# Common Causes of Epilepsy

- For seventy percent (70%) of people with epilepsy have unknown causes
- For the remaining thirty percent (30%) common identifiable causes include:
  - Brain trauma
  - Brain lesions(e.g. tumors)
  - Poisoning(lead)
  - Infections of the brain (e.g. meningitis, encephalitis, measles)
  - Brain injury at birth
  - Abnormal brain development

# Seizure Types

- Generalized Seizures
  - Involve the whole brain
  
- Common types include absence and tonic-clonic
  - Symptoms may include convulsions, staring, muscle spasms and falls
  
- Partial Seizures
  - Involve only part of the brain
  - Common types include simple partial and complex partial
  - Symptoms relate to the part of the brain affected

# Signs of Absence Seizures

- 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
- May be confused with:
  - Daydreaming
  - Lack of attention
  - ADD

# Signs of Generalized Tonic-Clonic Seizures

- 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
- Usually followed by confusion, headache, tiredness, soreness, speech difficulty



# Emergency Action Plan- Seizure

- Stay calm and **track time**
- Have someone in classroom notify main office to call **911 and parents**
- Remove the students from classroom or space to provide privacy for the student
- Maintain airway and turn student on his/her side
- Provide safe environment for student (sharp objects, chairs, tables, etc.)
- Cushion head (pillow, jacket, backpack, sweater)
- After the seizure, remain with the student until child is fully awake or emergency personal arrives
- Provide emotional support
- Document seizure activity
- Notify Supervisor



# DO NOT'S

- 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

# When is a Seizure an Emergency

- First time seizure
- Convulsive seizure lasting more than 3 minutes
- 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
- Normal breathing does not resume
- Parents request emergency evaluation

# Signs of Simple Partial Seizures

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

# Signs of 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, consensual speech or lip smacking
- Often lasts one to three minutes
- May become combative if restrained
- May be confused with:
  - Drunkenness or drug abuse
  - Aggressive behavior

# 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 (prescriptions)
  - Overheating/overexertion
  - Poor diet/missed meals

# The Impact on Learning & 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
- Students with epilepsy are more likely to suffer from low self-esteem

# Tips for Supporting Students with Epilepsy

- Stay calm during seizure episodes
- Be supportive
- Have a copy of the child's seizure action plan
- Discuss seizure action plan in the student's IEP
- Know the child's medications and their possible side effects
- Encourage positive peer interaction

# Tips for Supporting Students with Epilepsy

- Avoid overprotection and encourage independence
- Include the student in as many activities as possible
- Communicate with parents about child's seizure activity, behavior and learning problems

# Bibliography

- "Epilepsy Foundation." *Epilepsy Foundation*. N.p., n.d. Web. 09 July 2014.
- "Seizures (Generalized and Partial) Causes." *WebMD*. WebMD, n.d. Web. 07 July 2014.
- "Types of Seizures and Seizure Symptoms: Grand Mal Seizure, Myoclonic Seizure, and More - WebMD." *WebMD*. WebMD, n.d. Web. 07 July 2014.