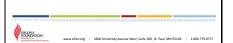
Seizure Recognition & Response



Slide 2

Today's Objectives

- Identify the most common types of seizures
- Define epilepsy and describe possible causes of disorder
- Describe appropriate response to seizures
- Discuss available treatment options



Slide 3

Epilepsy is...

- NOT Contagious
- NOT a Mental Illness
- NOT a Mental Impairment



Slide 4 Epilepsy is... A neurological disorder of the brain characterized by the tendency to have recurring seizures May also be called a Seizure Disorder PREPSY FOLINDATION Service of the brain characterized by the tendency to have recurring seizures May also be called a Seizure Disorder FILEPSY FOLINDATION Service of the brain characterized by the tendency to have recurring seizures Almost 3 million Americans have epilepsy Epilepsy is the most common neurological condition in children and the third most common

Slide 6

What happens to the brain during a seizure?

■ Sudden electrical activity in the brain

in adults after Alzheimer's and stroke

1 in every 60 children has epilepsy

■ SUDEP & Death and Epilepsy

• Over 60,000 people in MN & ND have epilepsy

- Most seizures are either partial or generalized
- Where the activity occurs in the brain will determine how the seizure will look



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Slide 7 **Possible Causes of Epilepsy** ■ Head Trauma Brain tumor and stroke Infection and maternal injury ■ Some forms are genetic EPILEPSY FOUNDATION Slide 8 In 70% of the epilepsy cases there is no known cause EPILEPSY FOUNDATION Slide 9 **Possible Seizure Triggers** Failure to take Medications ■ Lack of Sleep ■ Stress / Anxiety Dehydration ■ Photosensitivity – Strobe Lights Menstrual Cycle / Hormonal Changes EPILEPSY FOUNDATION

Seizure Classification Partial Seizures (focal) Involves only part of brain Simple & complex forms Symptoms relate to the part of brain effected **Generalized Seizures** Involves whole brain Convulsions, staring, muscle spasms, and falls Most common are absence & tonic-clonic

Slide 11

Simple Partial Seizures

- Uncontrollable shaking movements of hand, arm or legs
 Sensory Seizures may see flashing lights in peripheral vision, hear bells ringing, etc.
- Seizure usually lasts between 1 and 2 minutes
 no impairment of consciousness
- May be considered an aura
- No immediate action is needed other than reassurance and emotional support
- A medical evaluation is recommended

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Slide 12

Complex Partial Seizures

- Most common seizure type
- <u>Unaware</u> of surroundings and unable to respond
- Repetitive, purposeless movements such as lip smacking, hand wringing, or wandering actions seem unusual
- Seizure usually lasts approximately three minutes

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Appropriate Response - Complex Partial • Stay calm • Track time • Do not restrain • Gently direct away from hazards • Remain with the individual until they have gained full awareness

Usual onset between 4 and 12 years of age
 Characterized by brief staring – can be confused with "daydreaming"

Starts and ends abruptly - can happen several times a day
 Quickly returns to complete awareness
 Appropriate response includes documentation

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Slide 15

Slide 14

Generalized Tonic Clonic (formerly grand mal) NOT the most common type Completely unconscious – loss of control Characterized by a sudden fall May cry out or make some types of noise Onset of uncontrolled jerking or shaking of muscles May have irregular breathing Lasts 5 minutes or less

Slide 16 **Appropriate Response** - Generalized Tonic Clonic Stay calm Protect their head ■ Turn on side to prevent choking * ■ Track time • Check for Seizure Disorder ID Move objects out of the way * Do NOT put anything in the person's mouth. Slide 17 Appropriate Response - Generalized Tonic Clonic Remain with them until they have gained full awareness If seizure lasts more than 5 minutes, call EMS ■ Recovery period—post ictal state EPILEPSY FOUNDATION Slide 18 Call 911 if the person... ■ Is injured ■ Has diabetes ■ Is pregnant ■ Does not resume normal breathing ■ Has a 1st time seizure ■ Has a seizure in water EPILEPSY FOUNDATION

Also call 911 if: STATUS EPILEPTICUS There is more than 5 minutes of continuous seizure activity OR Two or more consecutive seizures (cluster) without complete recovery

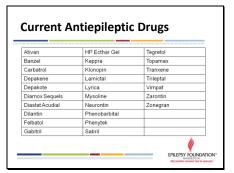
Slide 20



Slide 21

Medications Medications are most often the first line of treatment: • Approximately 60% of people achieve seizure control after the 1st year • 15% achieve control at a later date • 25% continue to have seizures despite treatment

Slide 22



Common Side Effects of Medication

- Lethargy
- Weight gain / weight loss
- Cognitive, concentration, memory difficulties
- Hyperactivity
- Emotional and/or behavioral changes

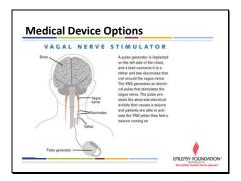


Slide 24

Brain Surgery Options

- Lobectomy
- Partial Seizures
- Hope for result of seizure free
- Corpus Callosotomy
 - Generalized Seizures
 - Never seizure free, less frequent/ intense





Slide 26

Special Diets

- Ketogenic Diet
 - Burns fat instead of glucose (fasting induced)
 - Gets 80% of calories from fat
 - Gets 20% from carbohydrates and proteins
 - Must be strictly managed and maintained daily
 - 1/3 become seizure free or almost seizure free
 - 1/3 improve but still have some seizures
 - 1/3 do not respond or find it too hard to comply



Slide 27

Special Diets

- Modified Atkins Diet
 - No fluid or calorie restriction, no protein restriction
 - Foods not weighed and measured, carbohydrates monitored
 - Not fast induced
- Low Glycemic Index Treatment
 - Glycemic Index: how high that food raises your blood glucose
 - Easier to maintain based more on portion control
 - Increase of carbohydrates with a low Glycemic Index

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Depression, Anger, Anxiety, Fear Cognitive Problems Developmental Delays Relationships Financial Costs School/Employment Driving Recreational Activities

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Slide 29

The Epilepsy Foundation of Minnesota leads the fight to stop seizures, find a cure and overcome the challenges created by epilepsy.

1.800.779.0777

www.efmn.org

Slide 30

Keep On Going You hurt me like crazy. You stop me from doing things I want to do. But I keep on going forward. I have to go to a lot of doctor appointments because of you. I remind myself that you changed me forever. I don't know how I would be without you. Tessa, age 15, person with epilepsy

Writing Memory

I don't know exactly why my seizures started or why they have stopped. I don't even really know if they are gone because each tiny heat on my legs or tingle in my feet, each feeling that I've been here before hollows my stomach and scrapes through my chest, leaving me raw, scoured by the anxiety that the seizures might be back.

Molly, age 35, person with epilepsy



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