

BC Epilepsy Society

Partners in Teaching: Seizure Awareness Workshop



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Learning Objectives

1. **Facts About Epilepsy and Seizures**
2. **Seizure Recognition**
3. **First Aid and Safety Considerations**
4. **Learning and Behavioural Impacts**



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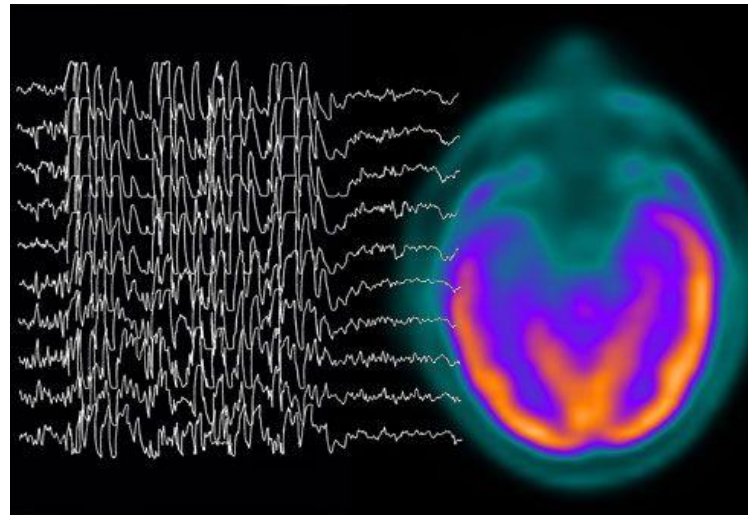


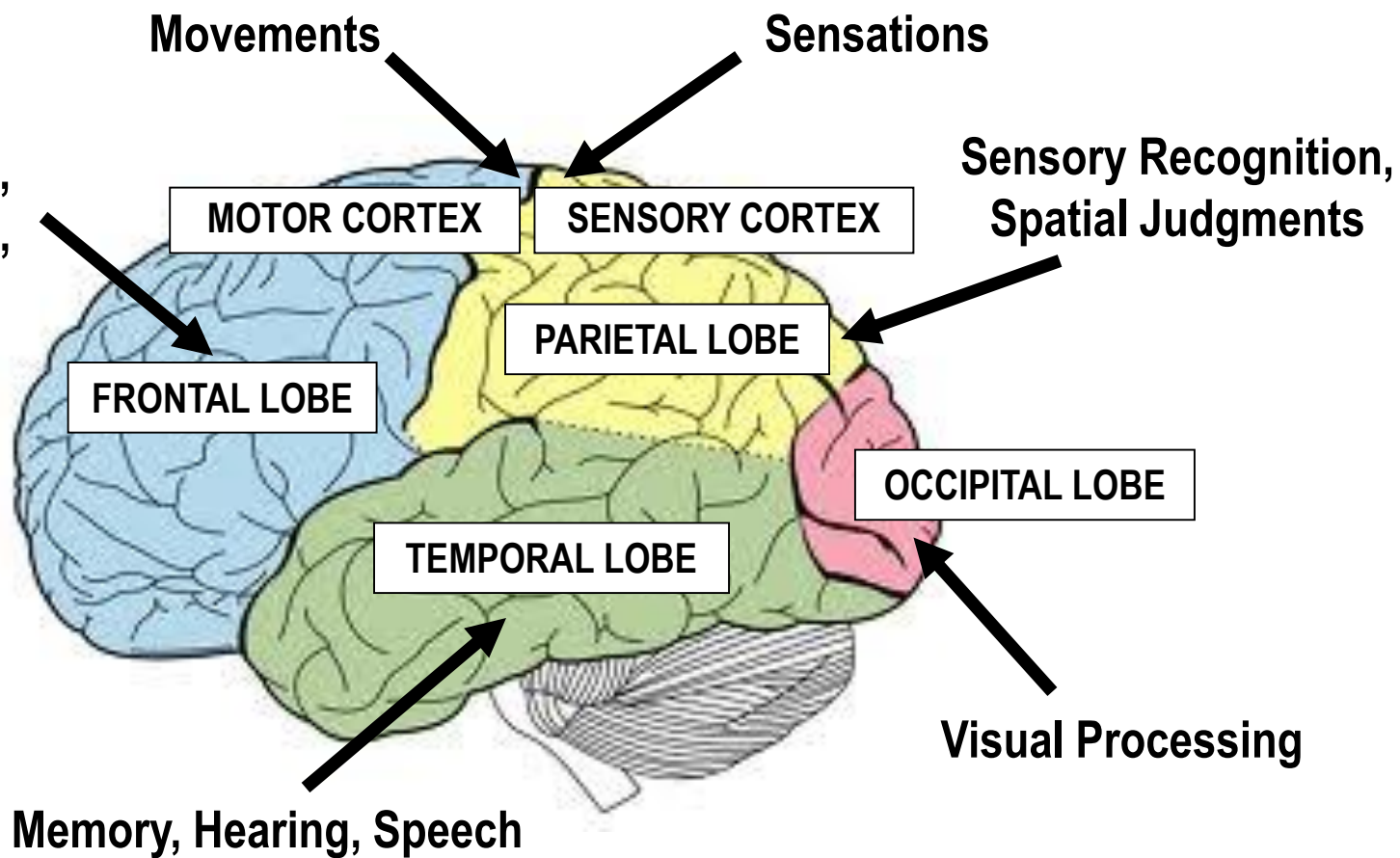
What is Epilepsy?

A medical condition
that causes
recurring seizures

What is an Epileptic Seizure?

A sudden, brief and temporary disturbance of electrical activity in the brain







Does having a seizure mean that you have epilepsy?

No!

Non-Epileptic Seizures:

- Febrile – “fever” seizures
- Toxic substances (*alcohol, street drugs, lead, etc.*)
- Irregular heartbeat
- Low blood sugar levels (*hypoglycemia*)
- Lack of oxygen
- Psychogenic



Epilepsy is More Common Than You Think

- **1 in 12 people will have a seizure in their lifetime**
- **1 in 100 people will develop epilepsy**
- **40,000 people in BC**
- **65 million people worldwide**
- **More people have epilepsy than those who have multiple sclerosis, Parkinson's disease, and cerebral palsy combined.**



Most common neurological disorder associated with developmental disabilities

Also prevalent in people with:

- **Cerebral Palsy (~30%)**
- **Autism (~20-30%)**
- **Down's Syndrome (~5-10%)**
- **Fetal Alcohol Syndrome (~6%)**
- **Tuberous Sclerosis (~80%)**



Possible Coexisting Conditions

- Depression
- Anxiety
- ADHD
- Migraine



Spectrum of Severity

Uncomplicated

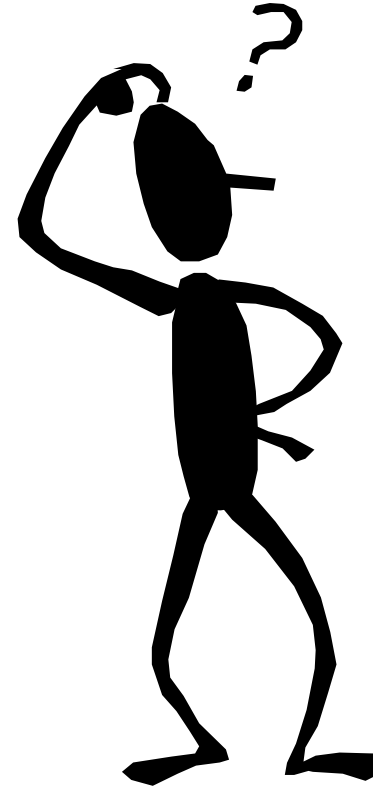
vs.

Intractable

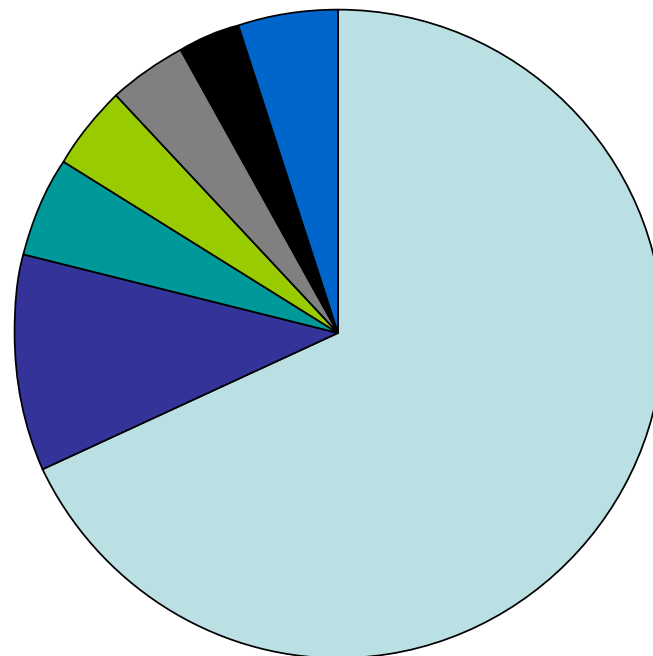


~30% of people with epilepsy do not have their seizures completely controlled

What Causes Epilepsy?



- unknown (68%)**
- stroke (11%)**
- congenital (5%)**
- head trauma (4%)**
- brain tumour (4%)**
- infection (3%)**
- other (5%)**



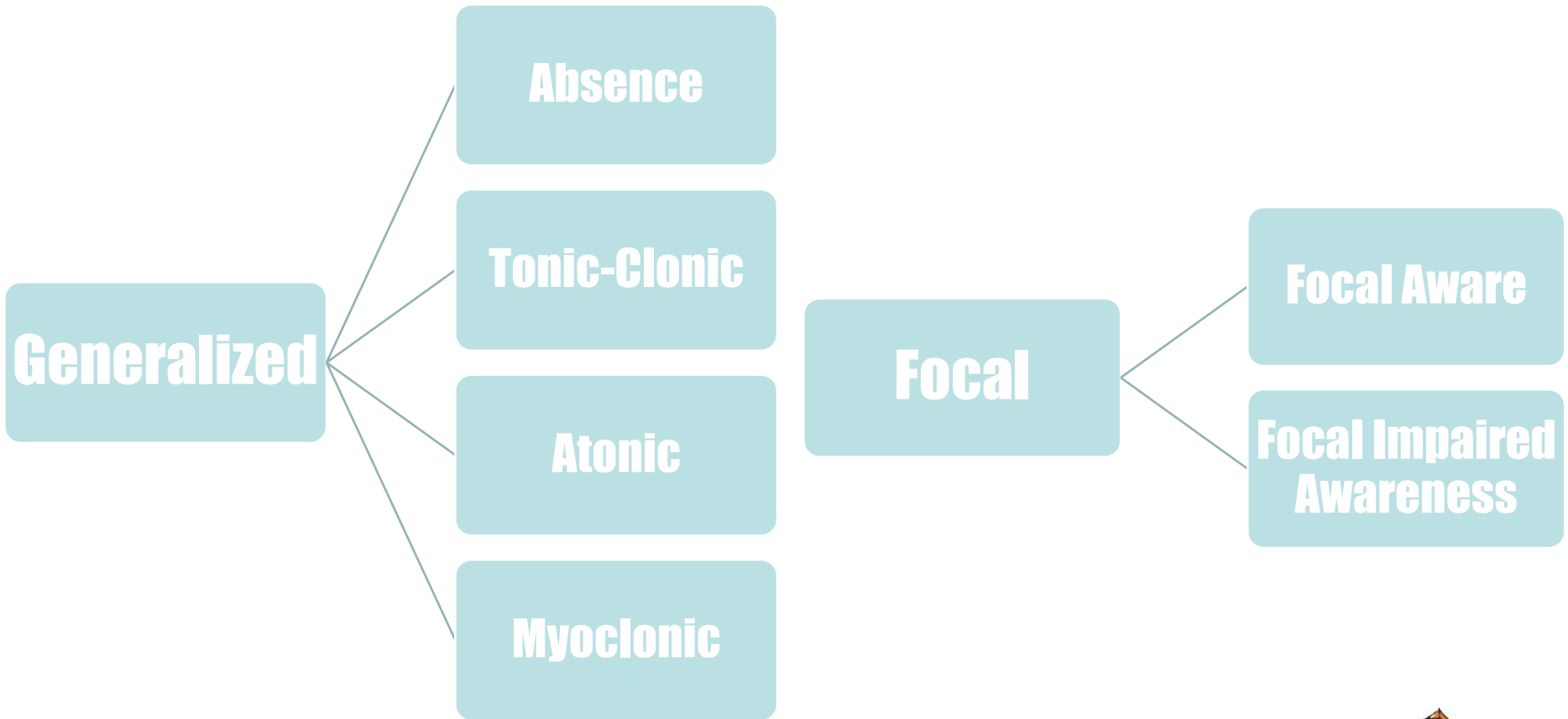
source: neurology.org



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Two Categories of Seizures





Absence Seizure (Petit Mal)

- **Brief loss of awareness**
- **Abrupt pause in activity**
- **Blank stare**
- **No recollection**
- **May be eyelid fluttering**
- **Very quick recovery**



Tonic-Clonic Seizure (Grand Mal)

- Loss of consciousness
- Stiffening of body
- Convulsions
- Shallow breathing or drooling may occur



Atonic Seizure (Drop Seizure)

- Sudden loss of muscle tone
- Head drops
- Fall
- Last less than 15 seconds
- Quick recovery



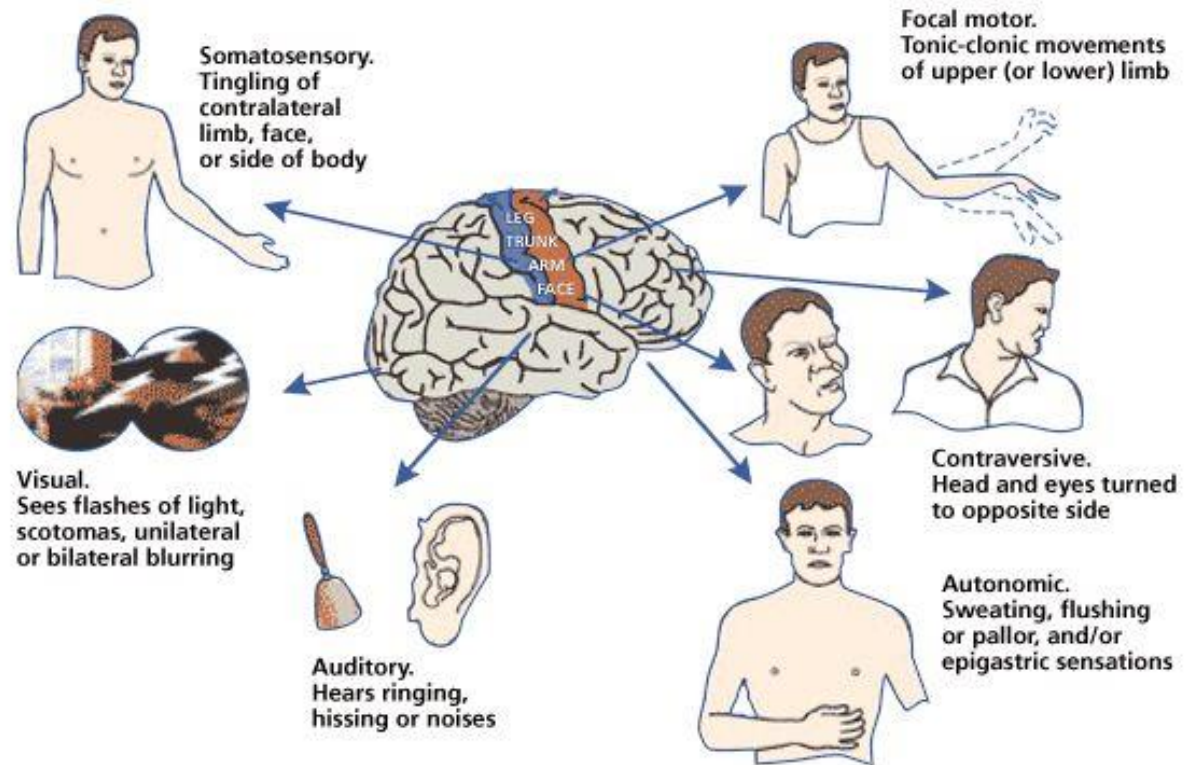
Myoclonic Seizure

- Remains conscious
- Brief jerk of a muscle or groups of muscles
- Usually involves the neck, shoulders and arms



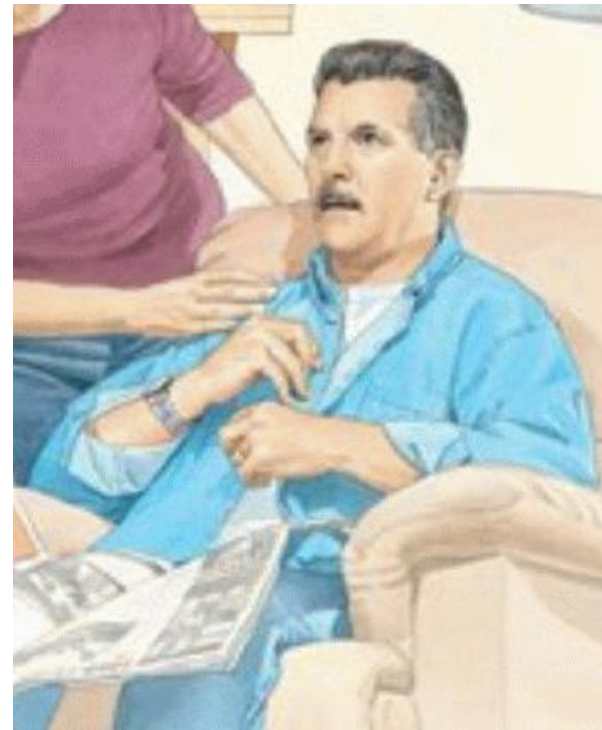
Focal Aware Seizure (Simple Partial)

- No loss of consciousness
- Senses are distorted
- Usually lasts less than one minute



Focal Impaired Awareness Seizure (Complex Partial)

- Impaired consciousness
- Not in control of movements, speech & actions
- Purposeless repetitive actions





Is there a warning before a seizure?

Occasionally: This is called an aura

It is the start of a focal aware seizure (simple partial)

This mild focal seizure could progress to a more severe seizure



Possible Seizure Triggers

Missed medication (#1)

Sleep deprivation (#2)

Flickering light patterns (~4%)

Severe stress

Illness or fever

Hormonal changes

Drug interactions

Alcohol or drug use

Hyperventilation

Dehydration

Overheating



+ Seizure First Aid **+**

- 1. Stay calm**
- 2. Time the seizure**
- 3. Protect person from injury**
 - cushion head**
 - move hard or sharp objects away**
 - gently guide away from hazards**
 - loosen any tight clothing around neck**



+ Seizure First Aid **+**

- 4. Turn the person on their side** *(recovery position)*
- 5. Stay with the individual until awareness is fully regained**
- 6. Be reassuring and comforting**
(May need to minimize physical contact to avoid potentially causing the person to inadvertently strike someone out of fear)
- 7. Document seizure activity**
(what happened before, during & after)





DANGEROUS



- **DO NOT** put anything in a person's mouth during a seizure
- **DO NOT** hold down or restrain the person
- **DO NOT** attempt to give food or drink during a seizure
- **DO NOT** place a seizing individual on his or her back
- **DO NOT** leave a person having a seizure: call for help



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When to Call an Ambulance

1. Seizure lasts for more than 5 minutes
2. First time seizure - no known history
3. Seizures repeat without full recovery
4. Confusion persists for more than 20 minutes after a seizure
5. Individual is injured, has diabetes or is pregnant

Record

1. Time (start and finish)
2. Warning signs
3. Movements & actions
4. Muscle tone
5. Change in colour & breathing pattern
6. Level of consciousness
7. Behaviour following seizure





Ask:

- **What typically happens?**
- **How often do they occur?**
- **How long do they last?**
- **Any known triggers or auras?**
- **Does the person lose bladder or bowel control?**
- **What is the emergency/safety plan?**



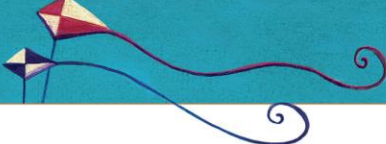
Safety Considerations

- **Make sure people know what to do during & after a seizure**
- **Caution around water and heights**
- **Up-to-date medical info**
- **Up-to-date safety plan**
- **Medical ID**

Impact on Learning

- Most people living with epilepsy are typical learners – they perform well academically and socially
- However, approximately 30% of people with epilepsy will encounter learning or behavioral challenges
- These depend on the type of epilepsy, its cause and brain regions affected
- Attention and memory are most commonly affected



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- **Seizure activity in the brain without obvious physical symptoms can negatively affect learning**
 - **Seizures, fatigue, medication effects, or a variable receptiveness to learning will often require flexibility**
 - **Neuropsychological & psychoeducational assessments are recommended**
 - **Periodic reevaluations should be built into the IEP – children with epilepsy often require more frequent review and monitoring**
 - **Confidence and motivation to learn may be diminished by societal attitudes and expectations**



Impacts of Having Epilepsy

- **Overprotection**
- **Helplessness**
- **Social isolation**
- **Low self-esteem**
- **Stigmatization**





Additional Difficulties

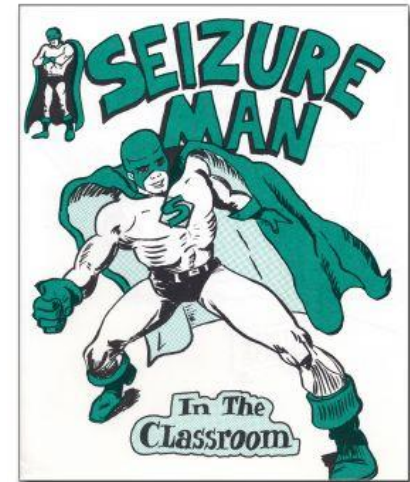
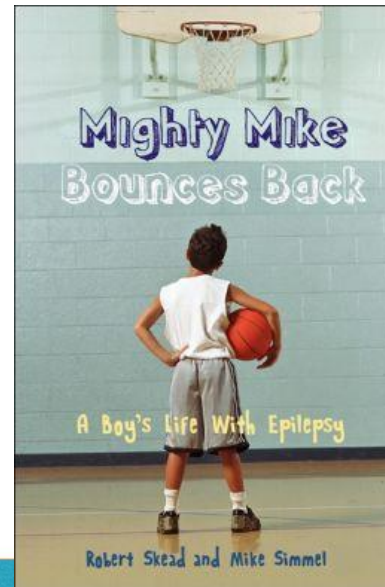
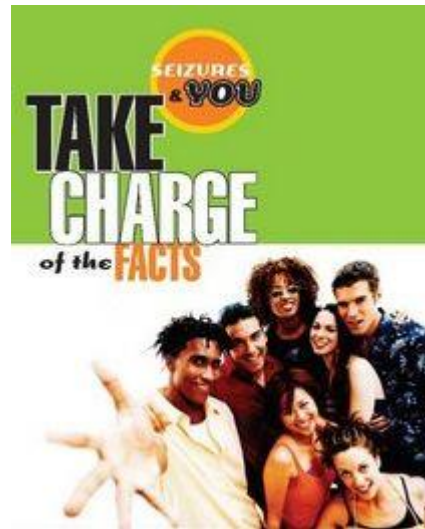
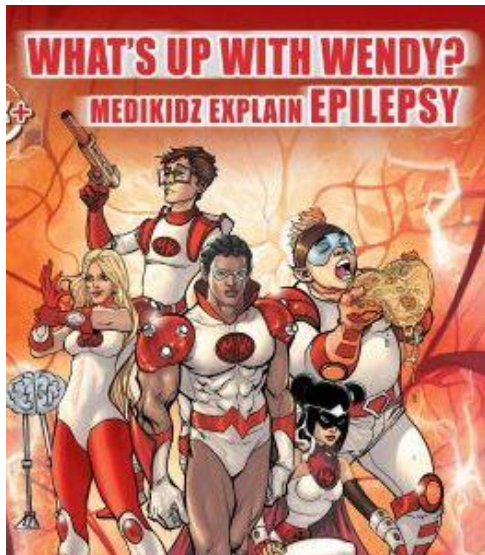
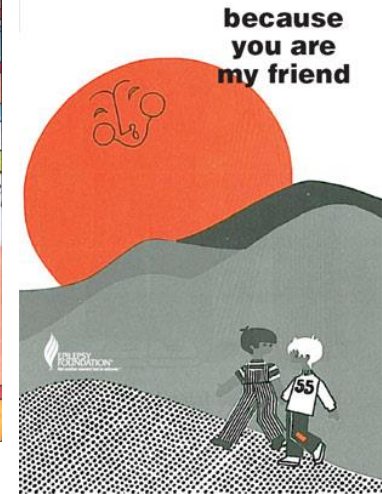
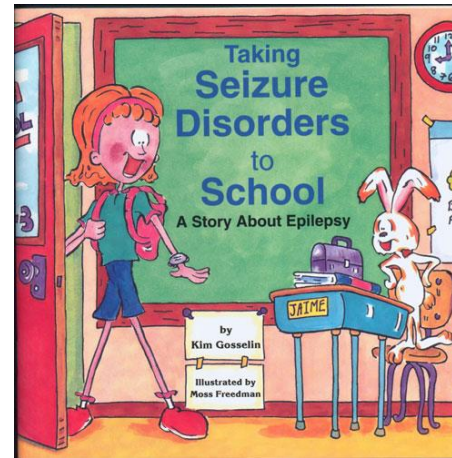
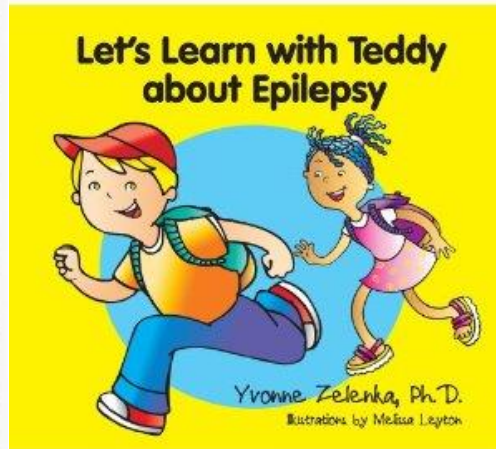
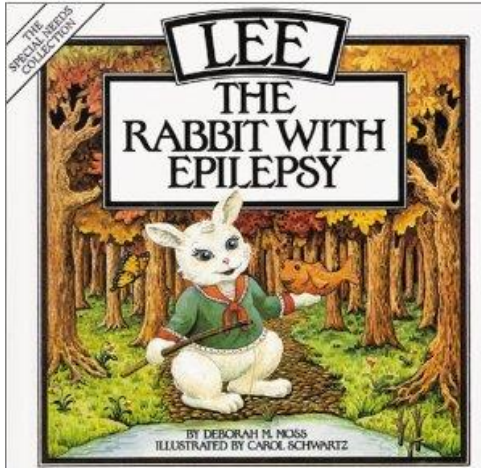
- **Accessing specialized medical services**
- **Cost of medical services & treatment**
- **Educational supports**
- **Transitioning to and from school**
- **Accessible sports & recreational services**
- **Employment**
- **Transportation**



Tips For Supporting Children With Epilepsy

- Stay calm during seizures
- Avoid overprotection & encourage independence
- Teach self-management skills
- Encourage positive peer interaction
- Emphasize strengths & successes to build self-esteem
- Communicate regularly with caregivers & healthcare providers
- Educate others about epilepsy

Sample Educational Materials



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For More Information Contact:



BC Epilepsy Society

604-875-6704

info@bcepilepsy.com

www.bcepilepsy.com



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Reference Materials

- ***Seizure Training for School Personnel*** by the Epilepsy Foundation of America
- ***Learning Difficulties and Epilepsy and Tips for Teachers: Understanding Students with Epilepsy*** by Dr. Josef Zaide
- ***Epilepsy Fact Sheet*** by the BC Epilepsy Society
- ***Seizure Types and First Aid*** by the BC Epilepsy Society
- **Various content from Epilepsy.com**

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45 minute version



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