

TYPES OF SEIZURES:

GENERALIZED – seizure activity involves whole brain

PARTIAL – seizure activity located in portion of brain – behavior reflects area of brain that is affected.

- **SIMPLE** – Alert, aware, no alteration of consciousness
- **COMPLEX** – Altered/impaired consciousness
- **PARTIAL WITH SECONDARY GENERALIZATION** – starts in one part of brain then spreads to whole brain (partial becomes “aura”)

GENERALIZED

TONIC-CLONIC – (grand mal) convulsive (Most often recognized, but only 10% of those with epilepsy have this type of seizure)

- Stiffens, loss of consciousness, falls, body jerking
- 1 – 3 minutes
- loss of bladder or bowel control possible
- breathing – during tonic phase, breathing may decrease or cease – causing cyanosis (bluing) of lips, face, nail beds – returns during clonic phase though may be irregular
- post-ictal = confusion, exhaustion, possible agitated or depressed. Won't remember seizure. Full consciousness may not return for 10-15 minutes. May cause lingering confusion or fatigue, which could last for hours or days.
- Most likely of seizure types to go into status epilepticus

MYOCLONIC

- Brief, shocklike jerks of muscles – usually on both sides of body at same time
- Neck, shoulder, upper arms, body, upper legs
- If something in hand, may get thrown
- Often occurs early in the morning
- Occurs in variety of epilepsy syndromes
- Usually no loss of consciousness
- May be triggered by lack of sleep or too much alcohol

TONIC

- Stiffening of body, arms or legs
- Less than 20 sec., often during sleep
- May lose balance & fall
- May be loss of consciousness

CLONIC

- Jerking, convulsive movements with no stiffening
- Loss of consciousness
- Usually not followed by confusion or tiredness

ATONIC

- Sudden loss of muscle tone - head, arm or body drops
- Can occur without loss of consciousness
- Less than 15 seconds
- Injury common (helmets recommended)

ABSENCE (petit mal)

- Brief episodes of staring
- Impaired awareness & lack of responsiveness
- May be eye blinks, chewing movements
- 10-20 seconds or less – up to 100s a day
- most common in children
- promptly resumes activity – no after effect
- will have missed ensuing activity, no awareness of seizure

PARTIAL - very diverse symptoms, may not be recognized as seizures (similar symptoms could have other causes)

SIMPLE – aware, can remember what occurs

- “auras”
- consciousness is not altered
- generally last only a few seconds to a few minutes
- **Motor seizures** - change in muscle activity
 - Involuntary contractions – body jerking, ie. finger or arm, face twitching
 - Weakness of body part – hand (drop object), vocal (difficulty speaking)
- **Sensory** – changes in sensation – hallucinations & illusions
 - Touch (numbness, “pins & needles”)
 - Smell (detect odor)
 - Taste
 - Vision (seeing something not there; occasionally momentary loss of vision)
 - Hearing (music, ringing, person’s voice)
- **Autonomic** – change in area controlling automatic bodily functions
 - Strange sensations in abdomen (nausea), chest (pressure), head (dizziness)
 - Sweating, heart rate or breathing changes for no reason
- **Psychic** – changes that affect how we think, feel & experience things
 - Problems with language function (garbled speech, difficulty understanding spoken or written language, word repetition)
 - Emotions – sudden fear, anxiety, depression, crying, hysterical laughter (spontaneous – not result of something triggering emotion)
 - “déjà vu” (feeling of having lived through this moment before); “jamais vu” (familiar things seems strange); feeling of being on “outside looking in on self”

COMPLEX PARTIAL – impaired consciousness or awareness; unable to respond or to recall episode.

- Can include any of behaviors listed under Simple Partial
- Person will appear to be conscious, but will lose contact with the world around him/her
- Activity is purposeless, undirected, inappropriate
- Dazed appearance
- May wander
- Can’t understand directions or communicate
- Automatism (staring, lip chewing, picking at clothes)
- Inappropriate, possibly socially embarrassing behaviors (screaming, running, disrobing, “sexual”-appearing movements, unfocused aggression or anger)
- Lasts 30 sec to 5 minutes or more
- Post-ictal: May be confusion for a period of time after seizure is over

SECONDARILY GENERALIZED

- Starts as a simple (“aura”) or complex partial seizure, then
- Moves to whole brain seizure – usually tonic-clonic
- Example: May start with increased heart rate, chest pressure, sweating, nausea (may be conscious at this time), then moves to dazed behavior, then loss of consciousness with any repetitive movement from tonic-clonic to as subtle as eye fluttering.

WHAT TO DO?

First Aid for Tonic-Clonic:

1. *Look for medical ID*
2. *Protect from nearby hazards*
3. *Loosen ties or shirt collars, remove glasses*
4. *Protect head from injury*
5. *Time seizure*
6. *Turn on side to keep airway clear*
7. *DO NOT put anything in mouth or hold tongue*
8. *DO NOT restrain*
9. *CPR only if breathing does not return after seizure subsides*

Call for medical help if: seizure lasts more than 5 minutes; repeated seizures one after another; if first seizure, or if person is pregnant, injured or diabetic.

First Aid for Myoclonic or Atonic;

None needed

Call for medical help if injured

First Aid for Partial Seizures:

1. *Speak calmly and reassuringly*
2. *Guide gently away from hazards*
3. *Stay with person until completely aware of environment*
4. *DO NOT restrain*
5. *DO NOT shout*

Call for medical help if: there is an injury; if seizure last longer than 30 minutes, or 10 minutes longer than normal duration

BE CALM. Use regular voice—do not shout.

RE: RESTRAINT

- Tonic-Clonic – DO NOT RESTRAIN unless necessary to move or prevent injury. Restraint will not stop the convulsion and may cause bruising or possibly a broken bone.
- Complex-Partial – DO NOT RESTRAIN unless in imminent danger. Will set off stress response. Will cause adrenal glands to pour powerful excitatory chemicals into blood stream, which in turn causes brain to stay in seizure activity. Also stress response causes considerably increased strength in individual to fight off attempt at restraint.

POST-ICTAL

Following a seizure there will be confusion. Verbal ability is usually last to return. Person may be cognizant but can not verbally respond yet. In assessing consciousness, try to ask for a non-verbal response to establish if coming back to awareness. (ie: shake head for yes; hold up fingers for numbers, point to color blue.)