

Jennifer A. Vickers, MD Carla Fedor, RN, CDDN Toni Benton, MD

#### Outline

#### **Epilepsy Basics**

Definition

Epilepsy vs. Seizures

Statistics

Causes

#### Seizure Classification

Treatments

#### Medications

Surgical Interventions

Dietary

Non-Epileptic Events

#### **Emergencies**

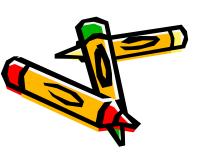
Status Epilepticus

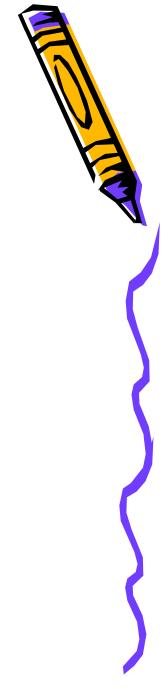
Clusters

Seizure First Aid

Personal Care and Safety

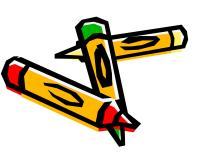
Mobility

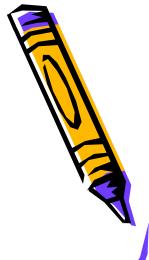




#### Outline

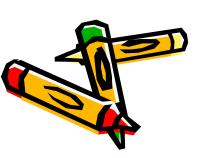
- Getting the Most out of Your Doctors Visit
- Types of Office Visits
- What is an emergency
- Routine Care
- Health Maintenance
- Communication
- Talking to the Doctors
- Forms
- Getting Your Questions Answered
- Follow Up Care
- Who is responsible to make sure recommendations are done?
- Scheduling Appointment for Follow ups
- Specialists/Referrals
- Tests/Results





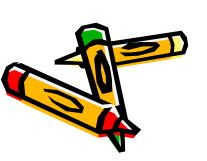
#### Definitions:

- Seizure: An episode of pathological, hyperactive, hypersynchronous brain activity, expressed as abnormal motor, sensory, or psychologic behavior.
- Seizure Disorder: A chronic brain disorder characterized by recurrent unprovoked seizures.



# What is the difference between epilepsy and a Seizure disorder?

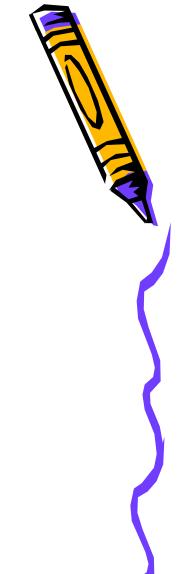
· Nothing, they are the same thing.



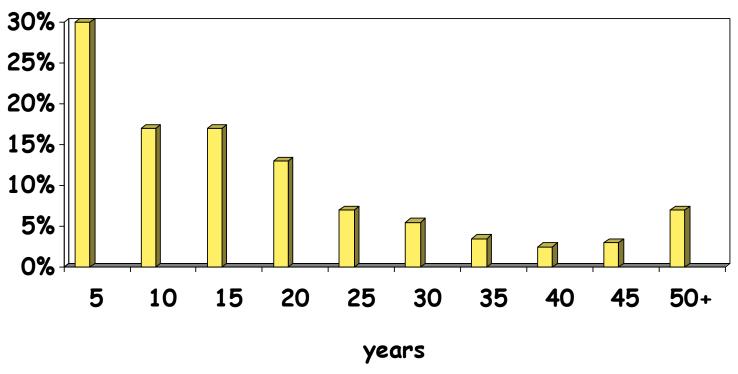
#### Prevalence

- Single Seizure: 9%
- · Recurrent Seizures: 0.5%



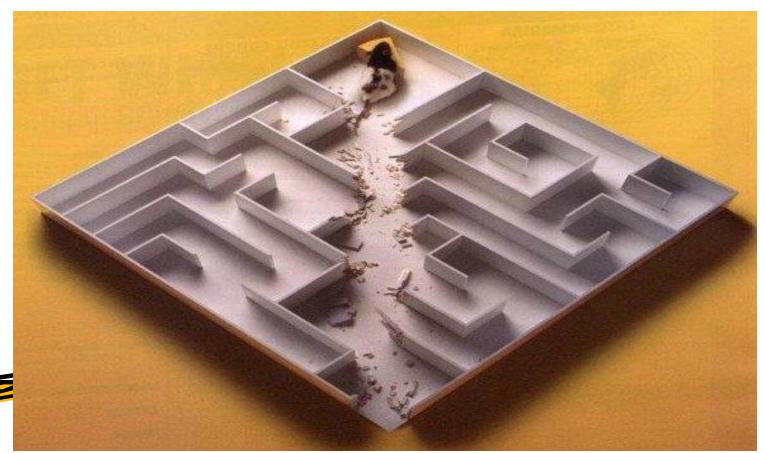


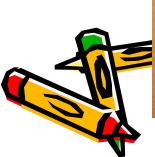
### Age of onset



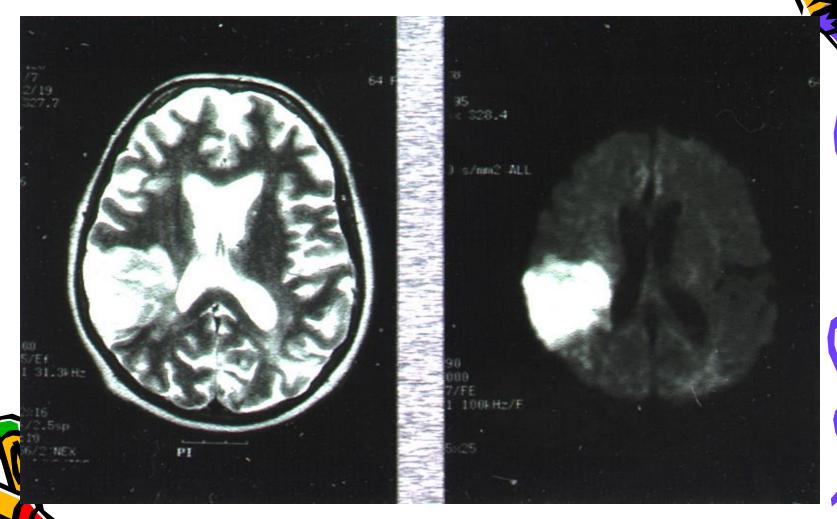


# What are some of the known causes of epilepsy?

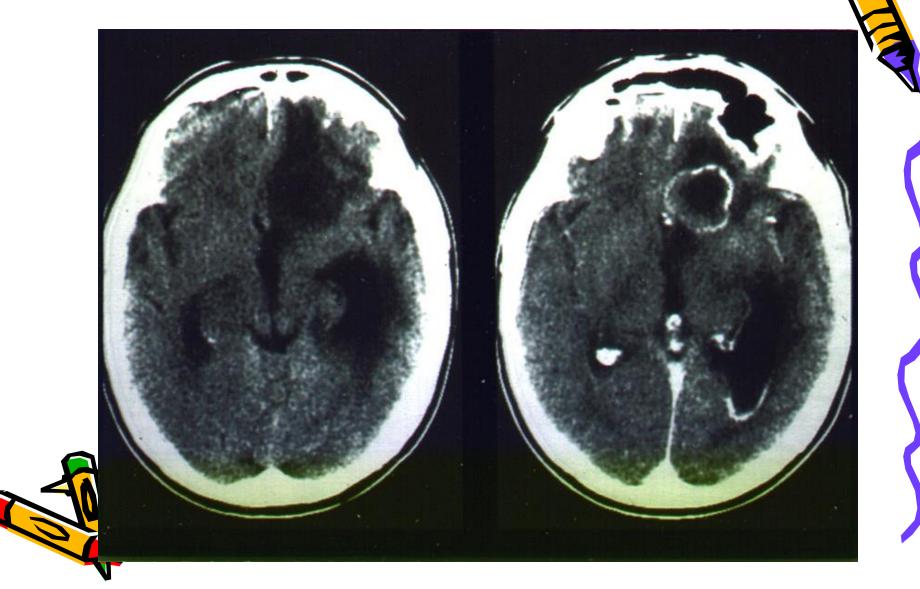


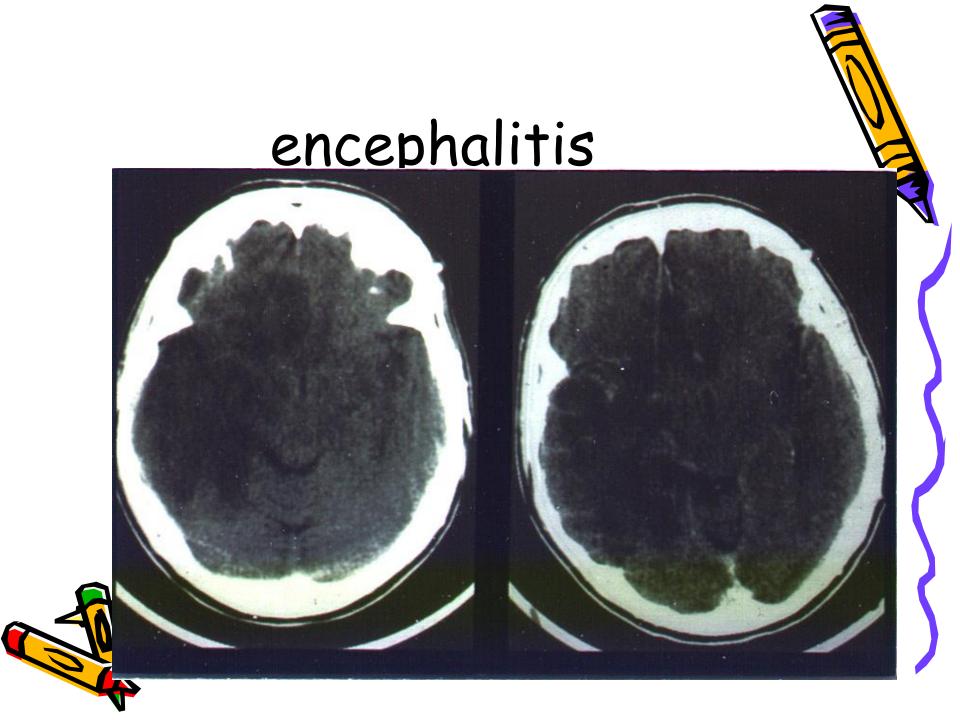


Cerebrovascular Disease

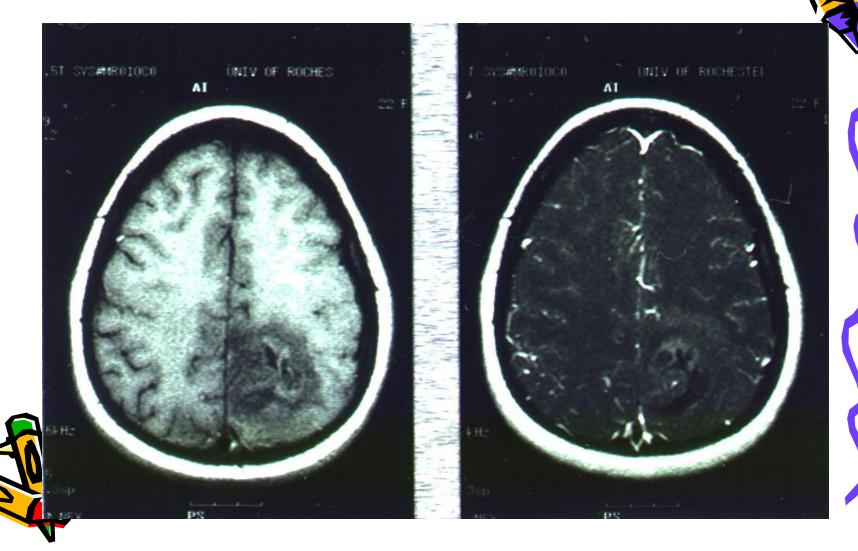


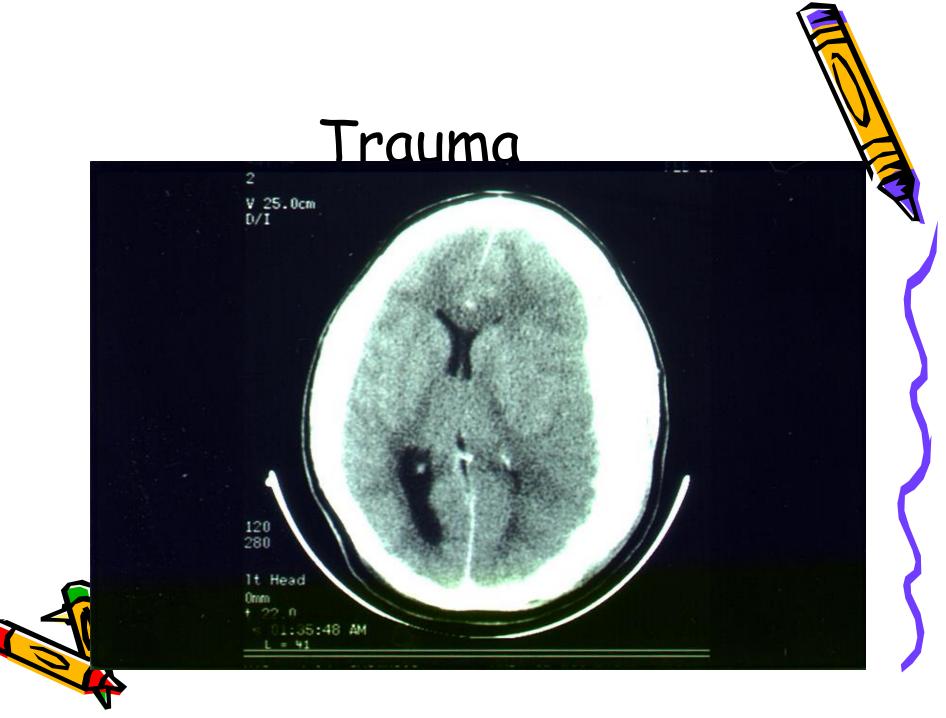
#### Bacterial infections



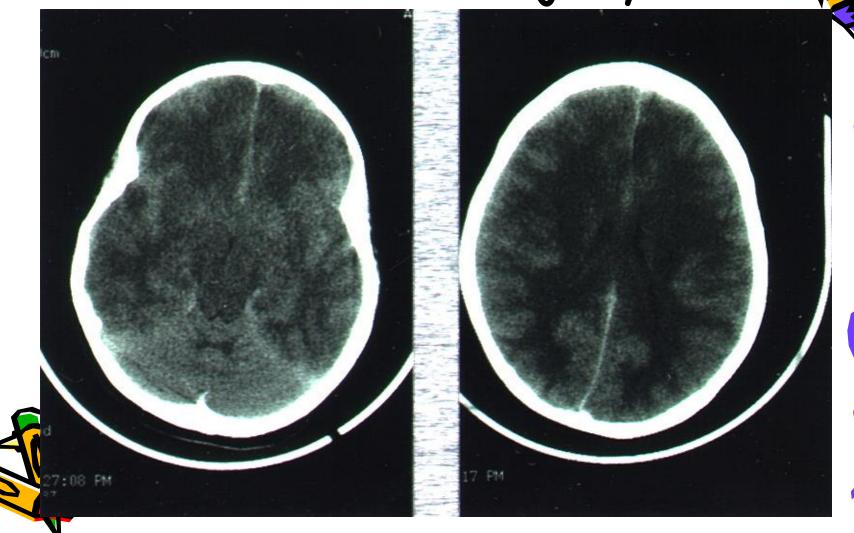


#### Brain tumors

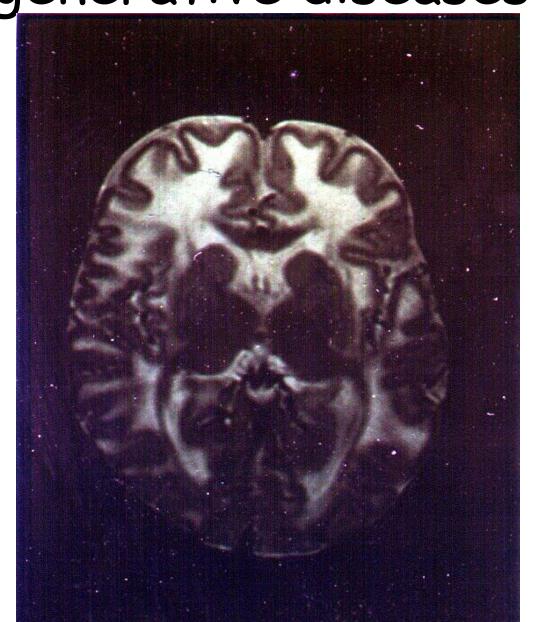




Severe anoxic injury



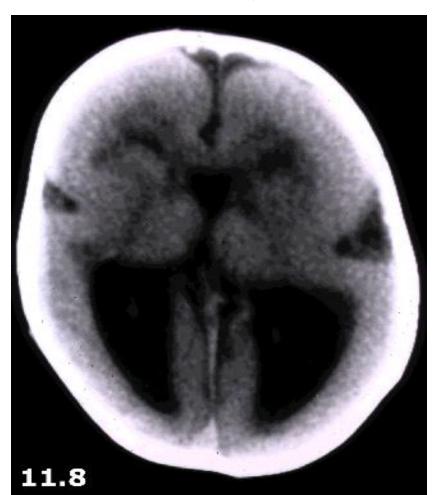
Degenerative diseases

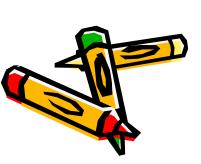


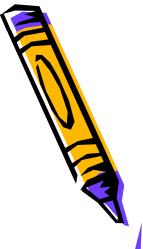




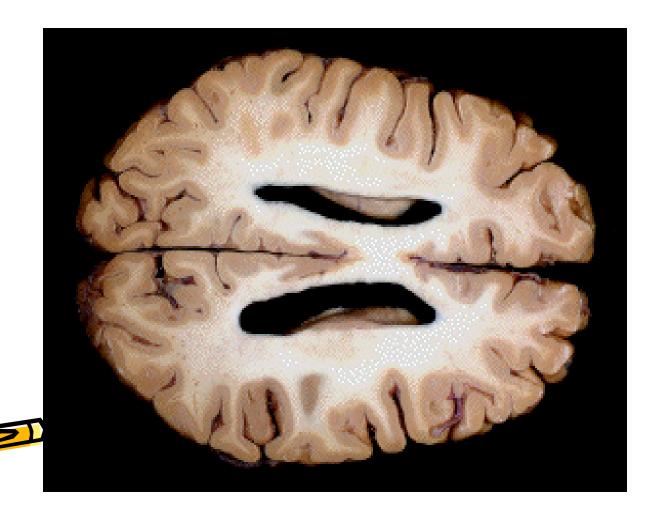
### Congenital malformations





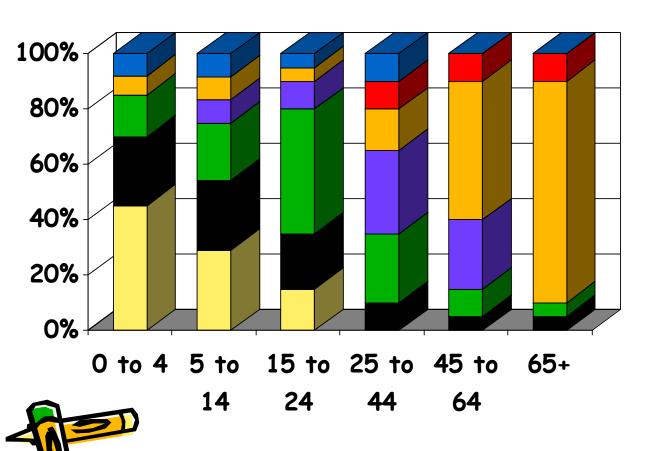


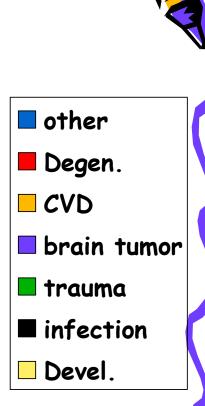
#### Unknown - 50%





# Etiology and age







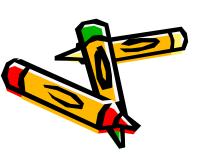
#### Seizure Classification

Clinical observation

EEG findings

Partial seizure

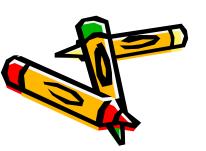
Generalized seizure





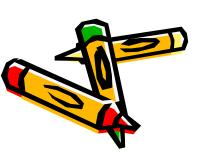
#### Partial Seizures

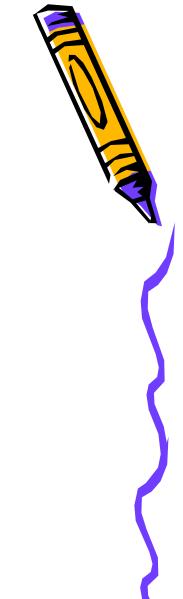
- More common in adults than children
- · Involves a focal area of the brain at onset
- A warning (aura) often precedes the seizure
- May or may not be associated with an alteration of consciousness
- Usually symptomatic



# Auras - patient's perspective

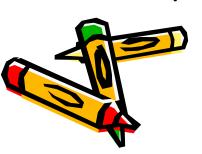
- Visual hallucination
- Auditory hallucination
- Tactile sensation
- Motor sensation
- Autonomic sensation

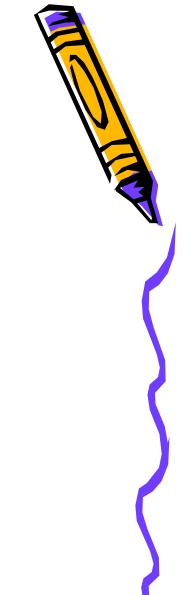




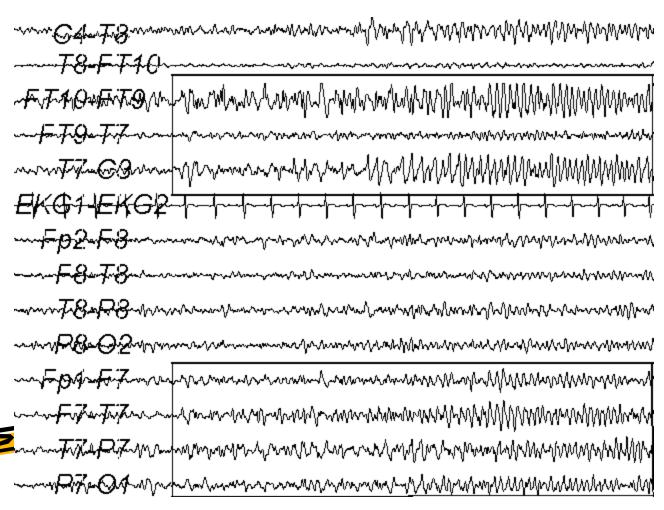
# Auras - a bystanders perspective

- · Pause in activity with a blank stare
- May have an inability to talk
- May have hand or arm posturing
- Eye deviation
- · May appear apprehensive
- May turn in a circle
- May run away random

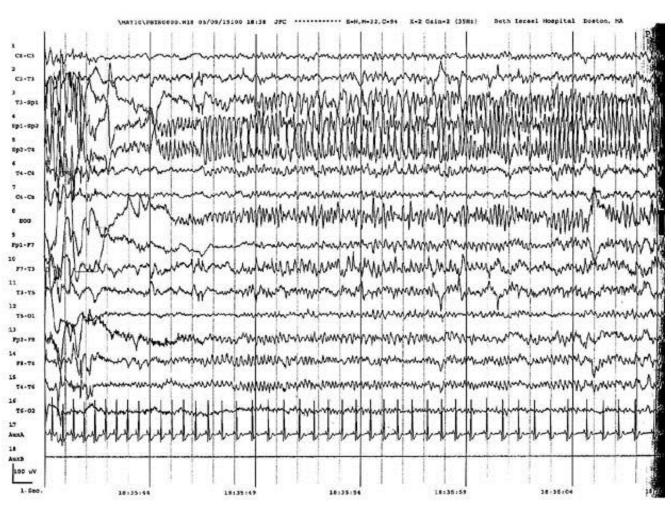




#### Partial Seizures

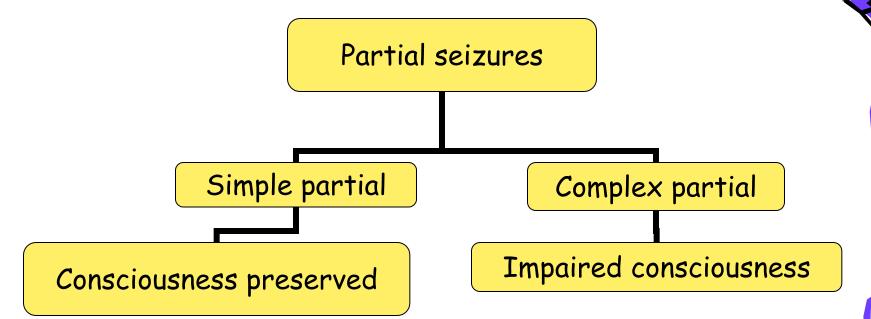


#### Partial seizure





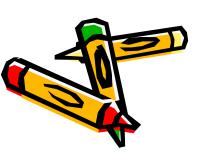
### Partial seizure types





#### Simple Partial Seizures

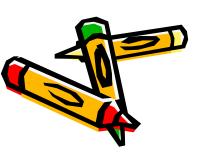
- Patient may pause, or slow down.
- · Aware of seizure
- Able to comprehend and speak
- Duration: variable
- · Post ictal phase: may feel tired





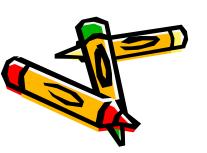
### Complex Partial Seizures

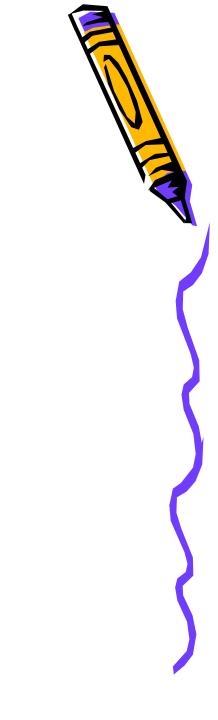
- Usually begin with an aura.
- · Alteration of consciousness.
- May exhibit automatisms:
  - Lip smacking
  - Hand posturing
  - Pick at clothing or reach out without purpose
  - Move about in a purposeless manner

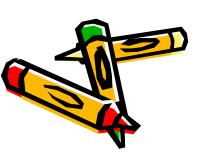


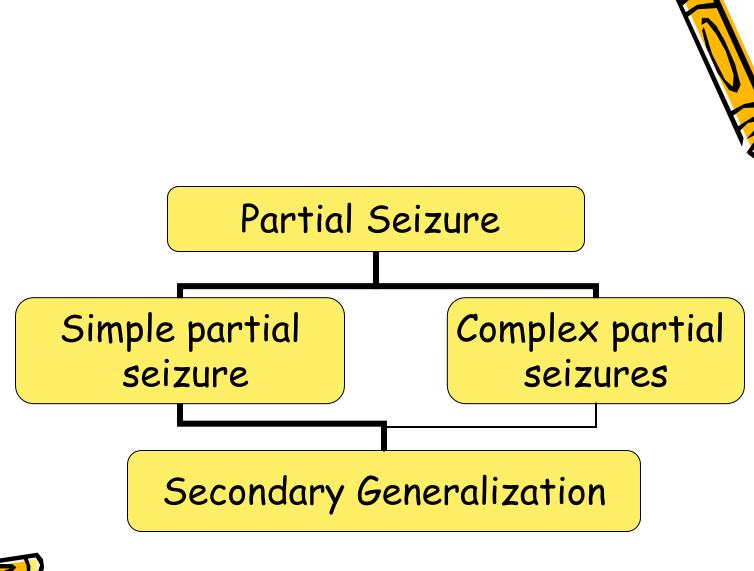
#### Complex partial seizures

- Duration: usually 2 3 minutes
- · Post ictal phase is variable in length.
  - Confused
  - Frightened
  - Combative or angry
  - Sleepy or may become hyperactive
  - Amnestic for the event







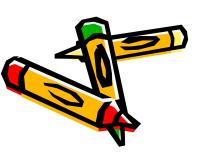






#### Generalized Seizures

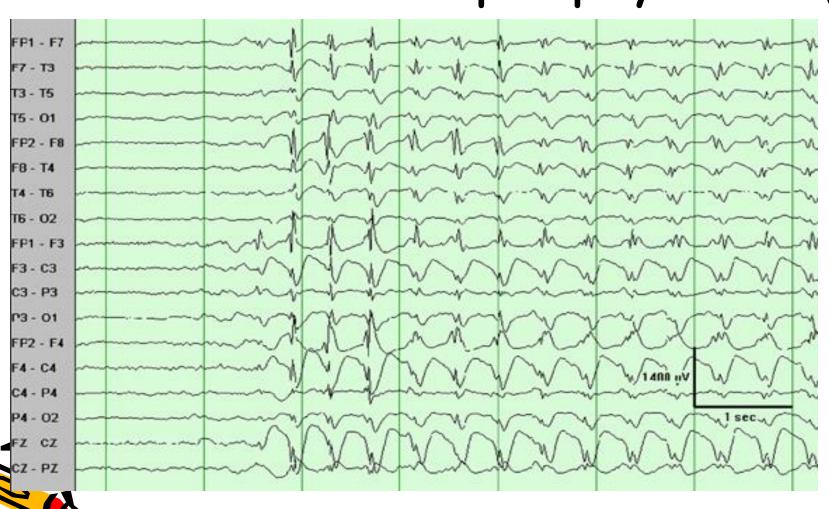
- Occur in 20 40%
- More common in children
- · Genetic cause suspected with most
- They begin without warning
- Always associated with an alteration of consciousness



#### Generalized Seizures

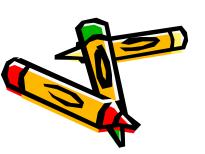


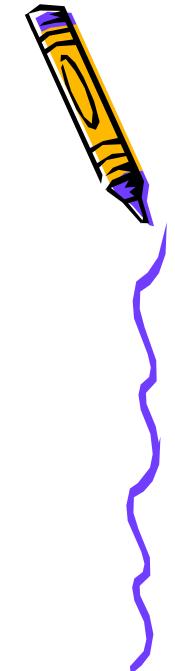
## Generalized Epilepsy



# Generalized seizure types

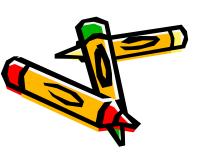
- Generalized tonic clonic or clonic
- · Absence or Atypical Absence
- Myoclonic
- · Tonic
- · Atonic





# Tonic Clonic seizures: aka Grand mal Seizures

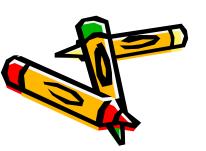
- Abrupt onset
- Loss of consciousness
- Stiffening of the extremities
- · Decreased ability to breathe
- Rhythmic jerking
- Duration: 1 3 minutes (usually)

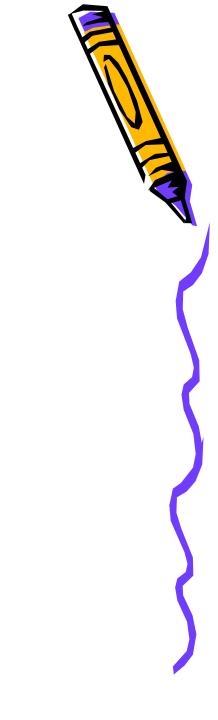


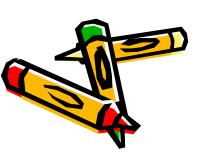


### Tonic Clonic seizures

- Often associated with tongue biting, and loss of bowel or bladder control
- Post ictal phase
  - Confusion
  - Sleepy may sleep 30 minutes to 4 hours





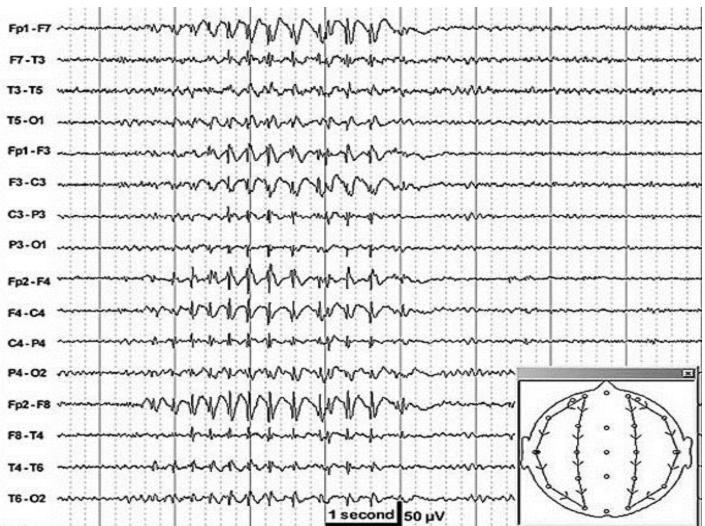


## Absence seizures

- Brief loss of consciousness (10 20 seconds)
- Blank stare
- No post ictal period associated
- May have subtle twitching (myoclonic movements)
- · May have simple automatisms

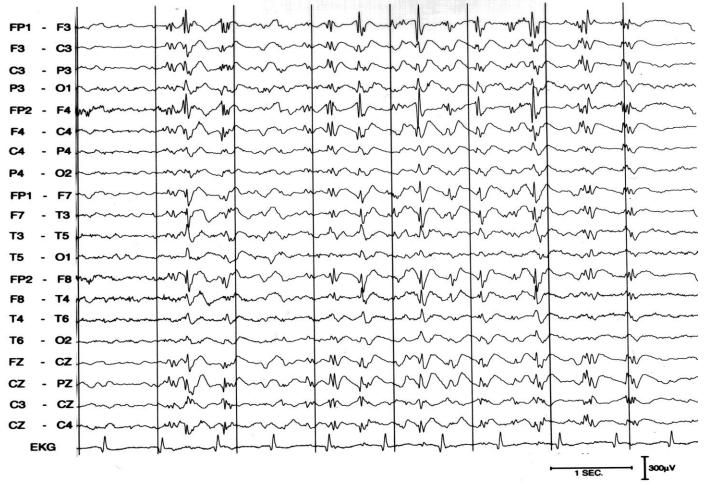


## Absence seizure

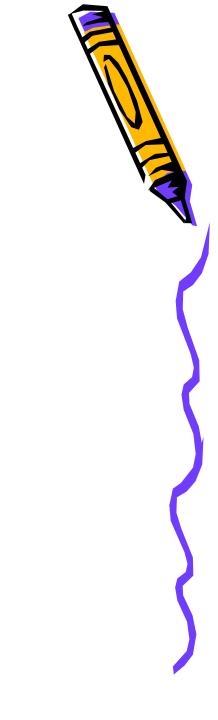


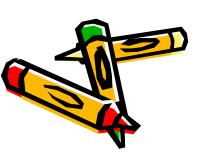


# Atypical Absence



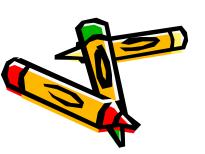


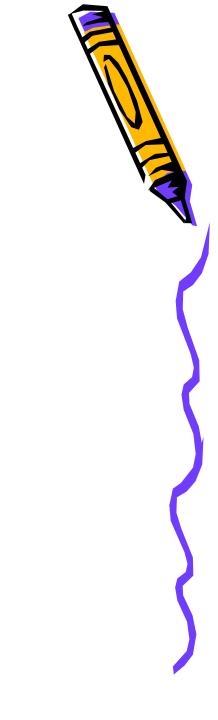


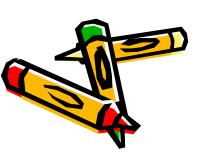


# Myoclonic seizures

- Generally look like a fast tonic seizure or startle
- Patient will often fall to the ground
- Brief lasting only a few seconds
- Usually occur in clusters
- No post ictal phase

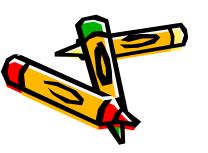


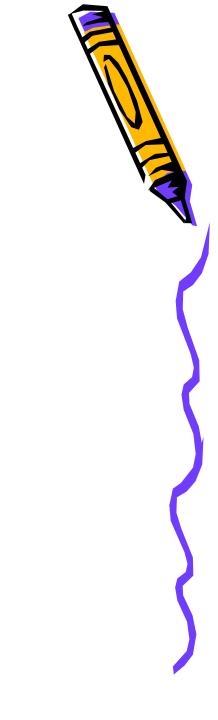




### Tonic seizures

- Patient often yell at the onset
- Arms are up, and extended to the front or side.
- Head drops, and legs may become stiff
- Patient may drop abruptly.
- · Duration usually 1 minute or less
- · Often poor respiratory effort
- · Post ictal phase is variable

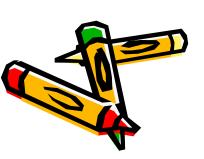




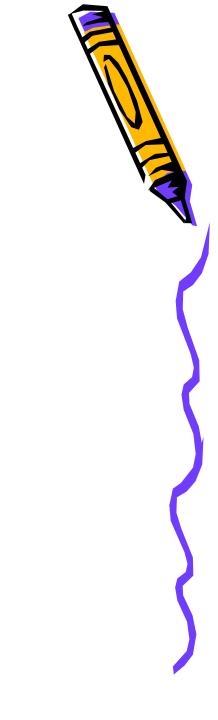


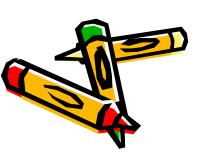
### Atonic Seizures

- Sudden loss of muscle tone
- Fall to the ground
- No warning
- · Duration: a few seconds









# Seizure provoking factors

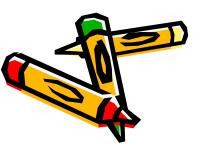
- · Insomnia
- Constipation
- · Febrile illnesses
- Excessive
   Excitement
- Excessive Stress
- Medication changes

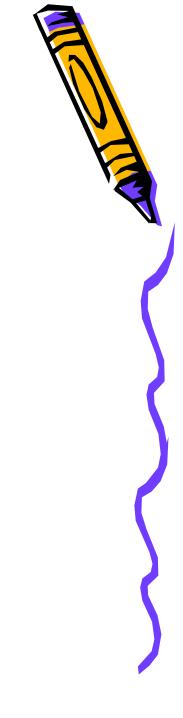




### Treatments

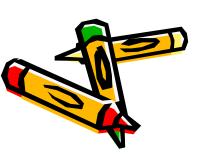
- Medications
- Surgery
- Dietary

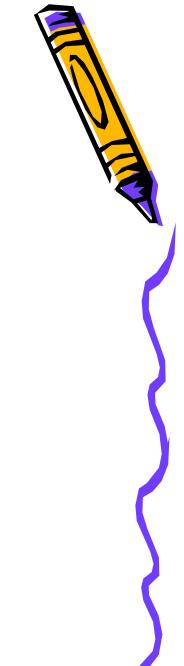




## Medications for Generalized seizures

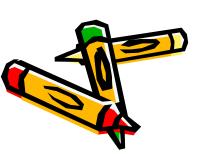
- Depakote
- · Lamictal
- Klonopin
- Felbatol
- · Zonegran

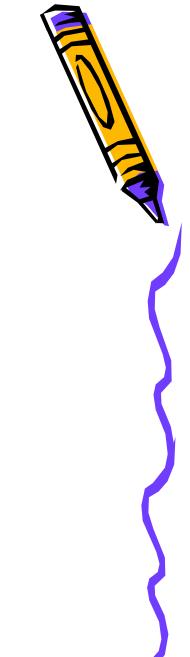




# Medications for Partial seizures

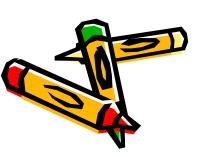
- Tegretol
- · Neurontin
- · Gabatril
- Trileptal

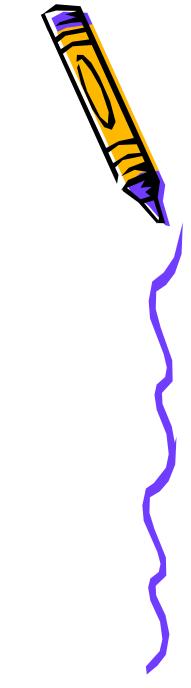




# Medications for either type

- Phenobarbital
- Dilantin
- Topamax
- Keppra





Surgical intervention

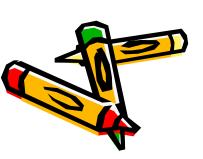
- Vagal Nerve
   Stimulator
- Temporal lobectomy
- Corpus Callosotomy
- Subpial transection

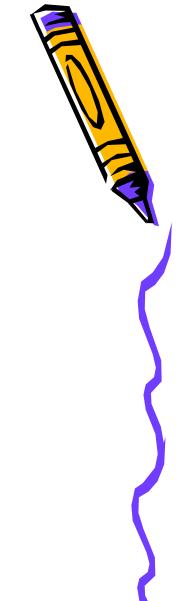




# Dietary intervention

- Ketogenic Diet
- · Atkins Diet?

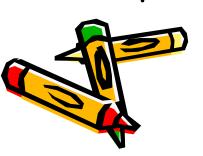




## Non epileptic events

- Syncope
- Cardiac arrhythmia
- Breath holding spell
- Panic attacks
- Movement disorder
- Hypoglycemic episodes

- · Esophageal reflux
- Sleep disorder
- Benign nocturnal jerks
- Psychogenic episodes
- Menses
- · trauma





Carla Fedor, RN

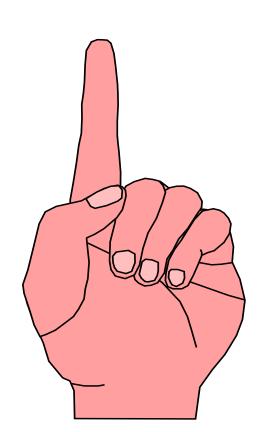
Continuum of Care Project, UNM



## The Do's

#### <u>D0</u>

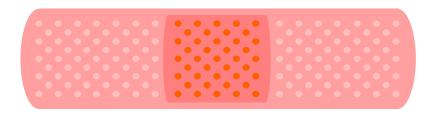
- · Stay Calm
- Protect from injury
- Move surrounding objects away
- Position on floor or
   soft surface

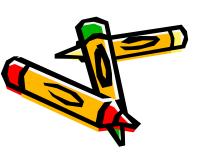


## The Do's

#### <u>DO</u>

- Protect airway
- Place head on pillow
- · Loosen clothing
- · Place on left side





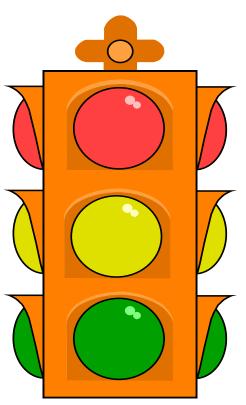
### The Don'ts

- Do not panic!
- Do not try to stop the seizure
- · Do not place objects in mouth
- · Do not try to restraint them



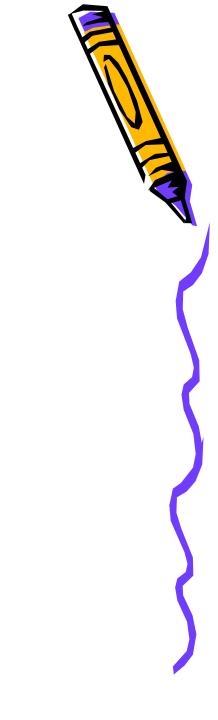


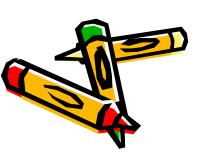
# A Seizure Becomes an Emergency



- · Any first time seizure
- When it compromises respiration
- When it has lasted>5 minutes
- >2 seizures in 10 minutes
- Unusual event for the client
- As defined in the Client's ISP or Crisis Intervention Plan
- Associated with trauma



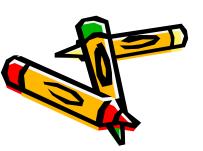




## Special Considerations

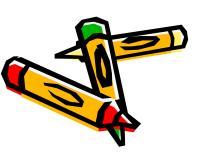
In a Wheelchair, Stroller or Bus

- Do not try to remove them from this Position
  - The seat provides support.
  - Moving the person puts you and the client at risk of injury.
  - You may provide extra padding, move footrests or take steps to protect limbs from injury.
  - Always continue to monitor airway



## Special Considerations

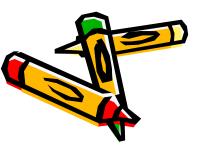
- -Loosen but do not unfasten seat belts
- -They may need to be taken out of the chair after the seizure
- -Always follow the protocols in the clients ISP or Crisis Prevention Plan
- -Follow Agency Protocol for follow up care

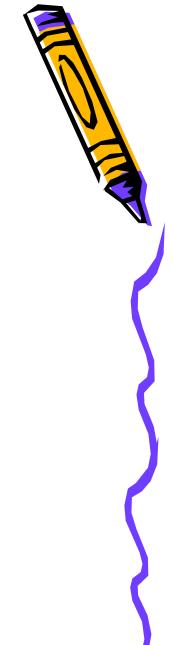




# Safety Issues

- · At home
- · At work





# Safety Issues: HOME

- · Around the House
  - Pad corners, rounded corners
  - Carpet with extra padding underneath
  - No top bunks
  - Low bed or mattress on the floor
  - Place guards around fireplace or woo stoves
  - Monitor in the bedroom

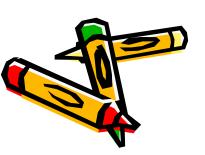


## Safety Issues: HOME

#### • Bathroom:

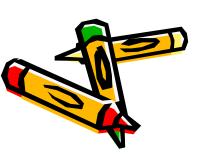
- Supervise shower
- Do not lock doors
- Keep water levels low in tub
- Set lower temperature on water heater
- Doors opening outwards instead of inwards





## Safety Issues: HOME

- Kitchen
  - Use Plastic containers/dishes
  - Use microwave instead of stove as much as possible
  - Supervision with knives or sharp objects



## Safety Issues: WORK

- In the workplace:
  - have a place to rest
  - keep extra set of clothes
  - take regular breaks
     to avoid fatigue
  - avoid flashing lights
  - special safety around machinery

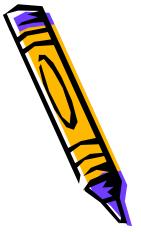




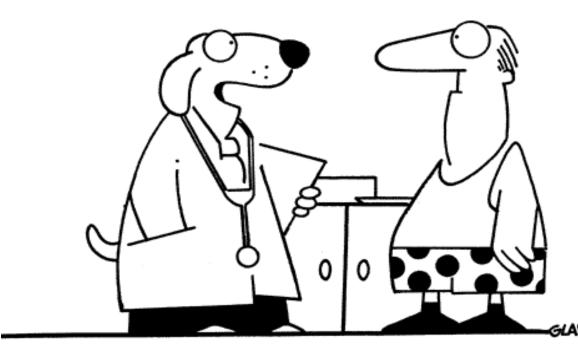
# Getting the Most out of Your Doctors Visit

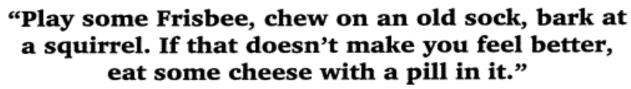
Working Effectively with Physicians





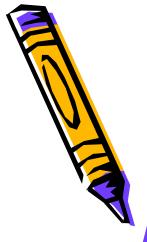
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## Working Effectively with Your Doctor



#### Getting the Most out of Your Doctors Visit

Types of Office Visits

What is an emergency

Routine Care

Health Maintenance

#### Communication

Talking to the Doctors

Forms

Getting Your Questions Answered

#### Follow Up Care

Who is responsible to make sure recommendations are done? Scheduling Appointment for Follow ups Specialists/Referrals

Tests/Results



## 3 Types of Doctor Visits

- · Emergency room
  - The client requires immediate attention
- · Acute care visit
  - Will not improve until treated, but can wait a short time until the office opens or the doctor is available.
- · Health Maintenance
  - Can be arranged several weeks in advance

### Appropriate ER Visits

- Difficulty breathing
- · Severe chest pain or heart attack
- · Severe Bleeding/wound requiring stitches
- · Severe Burn
- Persistent fever of 103 degrees or over
- Known or suspected poisoning
- · Status Epilepticus or prolonged seizure
- Broken Bone (after hours)
- Broken Bone with open wound



### Appropriate ER Visits

- Severe allergic Reaction
- Unconsciousness
- · Severe Pain
- Vomiting Blood or "coffee grounds"
- Suicide Attempt
- Eye Trauma
- Possible Sexual Abuse within the past 72 hours
- Open Human Bite wound
- Sudden/Acute Mental status changes





#### Acute Care

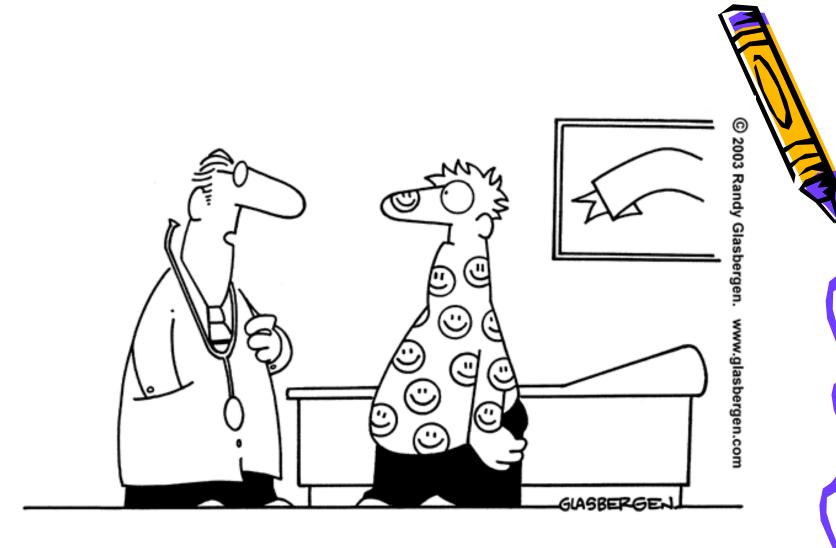
- Same Day or next day Appointments in the PCP's office
  - Usually a 15 minute appointment
  - The physician will focus on only the urgent problem

#### Not appropriate for...

- Thorough work-up of chronic problems
- Prescription refills
- Annual Physical
- Having the Level of Care and Outlier
   Paperwork signed for Tomorrow's IDT meeting

# Appropriate Urgent Care Visits

- Broken Bone (during office hours)
- · Persistent dizziness
- · Eye or Ear pain or drainage
- Fever 101 degrees or higher during office hours
- · Flu Symptoms beyond the third day
- · Persistent cough
- Nausea and Vomiting (inability to keeps down fluids or meds)
- Pain not improved by over the counter pain relievers
- Lethargy or irritability during office hours
- · Severe Rash



"You probably came in contact with someone who has an infectious smile."



#### Appropriate Urgent Care Visits

- · Change in type or frequency of seizures
- · Persistent change in skin color
- Skin breakdown or pressure sores
- Severe Sore throat
- Sunburn with blisters
- · Painful urination/possible urinary tract infection
- Persistent constipation
- Small wound requiring stitches during office hours (within 12 hours)



#### Health Care Maintenance

Annual Physical appointments are longer so the PCP has enough time to:

- Spend time to listen to questions or concerns
- · Do a thorough physical exam
- · Order labs
- Immunizations
- Write prescription refills
- · Complete paperwork

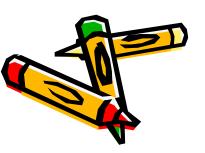


#### Health Care Maintenance

- These appointments must be made weeks or even months in advance.
- Notify the appointment scheduler if this appointment needs to be longer (annual physical).
- Notify the scheduler of any special needs.
- Anticipate and prepare so the appointment will be more productive.

#### Health Maintenance/Routine Office Visits

- Annual physical
- Referrals to specialists
- Routine follow-up of chronic conditions
- Follow-up of ongoing acute or sub acute conditions
- Follow-up of test results or labs
- Preventative health (immunizations, cholesterol, diet/exercise counseling)



# Health Maintenance/Routine Office Visits

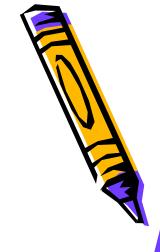


- · Unexplained weight loss or gain
- · Desire to lose weight, begin exercise program
- · Birth control
- · Changes in:
  - Appetite
  - Mood
  - Behavior
  - Sleep



# Health Maintenance/Routine Office Visit

- Chronic Minor complaints
  - Headaches
  - Nervous stomach
  - Allergies
  - Itching
  - Menstrual changes
  - Arthritis
  - )- Dermatitis



# When you call to make appointment:

#### Tell them:

- Why you need to see the doctor.
- How soon you need to be seen.
- Any accommodations you need.

#### Ask them:

What to bring?

Any special instructions?



## Getting Ready

Make a list of things to tell the doctor:

- Concerns about Behavior, Pain,
- Has this happened before?
- Changes in mood, amount of energy, sleep, eating, bathroom habits, other changes.
  - List of Medications



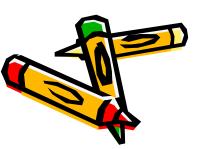


# Medical Information To Bring

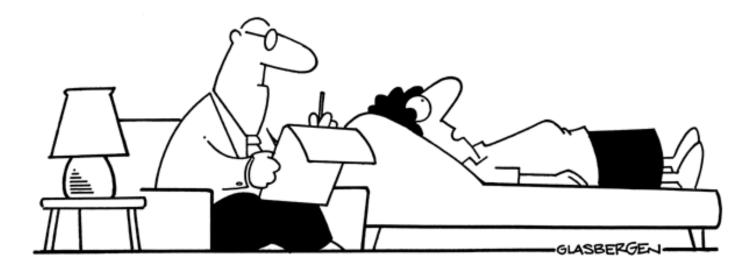
- List of medications
- · Allergies
- Medical History

 Surgeries or serious illness in the past

- Immunizations
- Family History
- Accommodations you need
- Insurance or Medicaid card



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"I have a family history of mental illness. My sister had a case of Beatlemania and my brother was cuckoo for Cocoa Puffs."



#### Communication

- · Communication with the Physician
  - Know the reason for the doctor's visit
  - Write Down Questions from Guardian, Team or Agency Nurse prior to Visit
  - Fax forms ahead of time so the Physician has more time with the Patient
- · Communication with the Team
  - Take good notes
  - Get the answers to your questions in writing
  - Take home written Instructions



## Follow Up Care

· Who is responsible?

 How will the Appropriate People Get the Information?

