



Your Child & Epilepsy

Alexander The Great



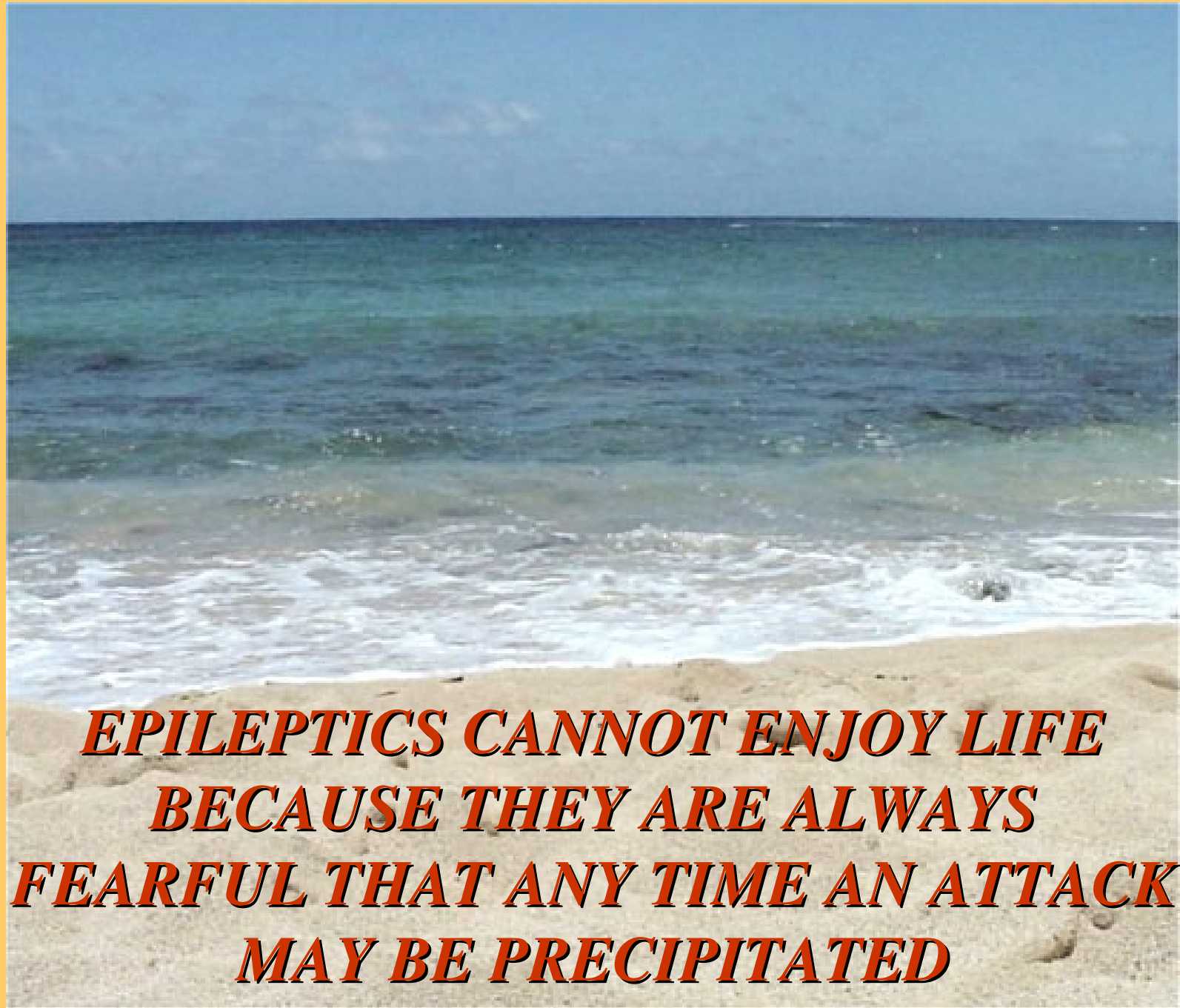
Napoleon



Jonty Rhodes



NICHOLAS PIRAMAL INDIA LIMITED



***EPILEPTICS CANNOT ENJOY LIFE
BECAUSE THEY ARE ALWAYS
FEARFUL THAT ANY TIME AN ATTACK
MAY BE PRECIPITATED***

Epilepsy - Definition

“a clinical manifestation presumed to result from an abnormal and excessive discharge of a set of neurons in the brain.”

New Oxford Text book of Psychiatry, 2001, 1153

NICHOLAS PIRAMAL INDIA LIMITED

The prevalence and incidence of epilepsy in India

- No. of people suffering from epilepsy at any point in time – approx. 5/1000 population
- Prevalence 3.93 per 1000 in children aged 0-15 years.
- No. of new cases per year - varies from 38 to 49.3 per 100,000 population per year.

http://www.jimaonline.org/May2002/print_currenttopic.htm

<http://www.emedicine.com/neuro/topic641.htm>

Classification of Seizure Types

- I. Partial seizures (seizures begins locally)**
- II. Generalized seizures (bilaterally symmetrical and without focal onset)**
- III. Unclassified seizures**
- IV. Status epilepticus**

I have... mumps, flu, epilepsy

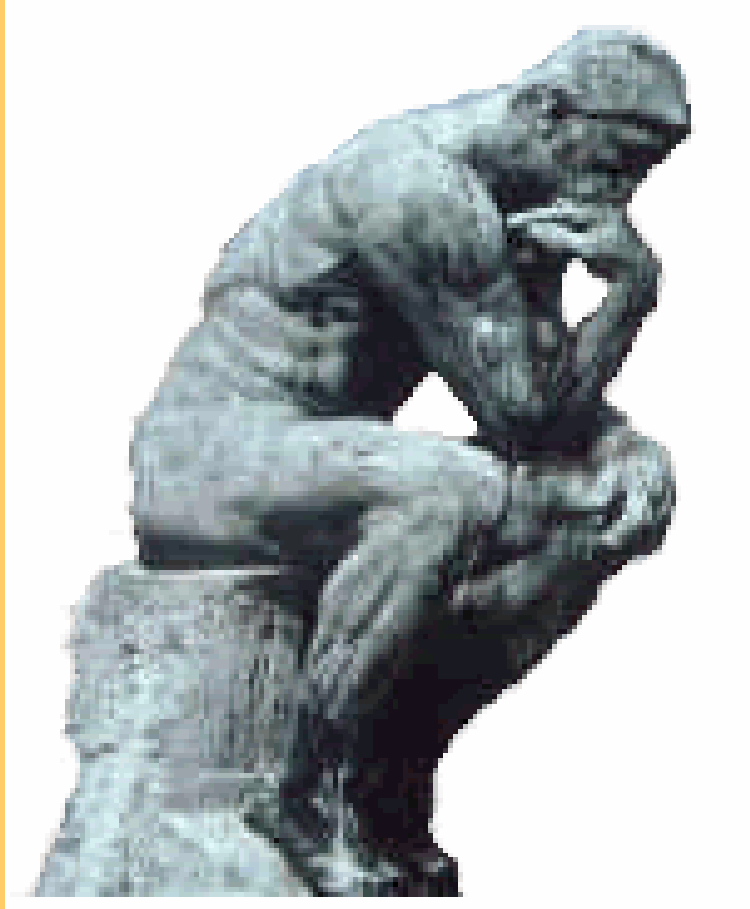


the only difference is up to you

None of these are anyone's fault, but how you think about it can make a difference.

Epilepsy is not a disease, and it's OK!!

Causes



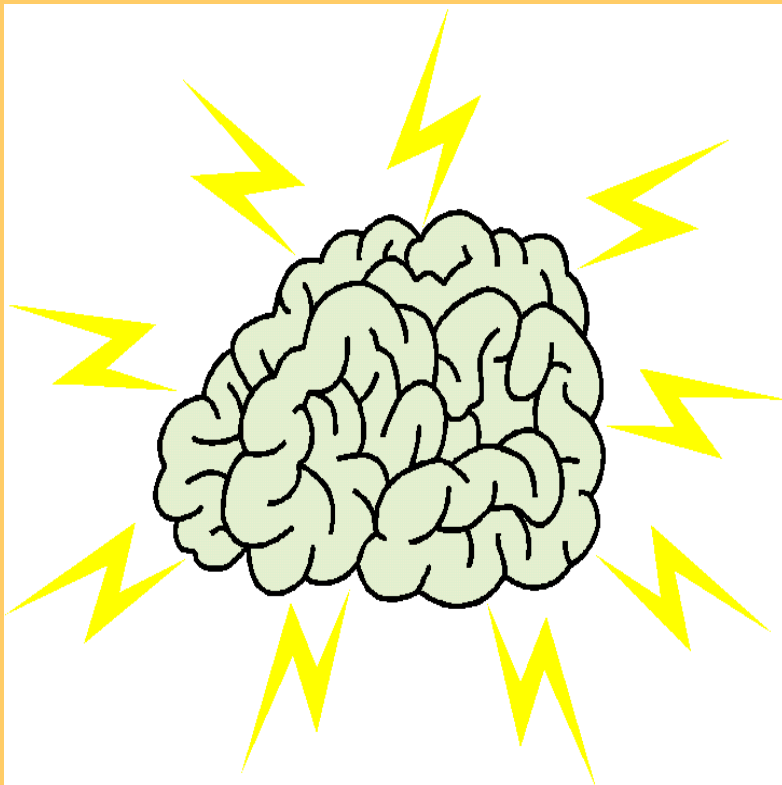
- **PHYSICAL**
- **METABOLIC**
- **INFECTION**
- **GENETIC**

Risk Factors & Vulnerabilities

- **Genetic predisposition – Shown to run in families.**
- **Following traumatic head injury, the risk of epilepsy increases (53% for Vietnam Vets. Approx. 15yrs post-injury).**

Risk Factors & Vulnerabilities Cont.

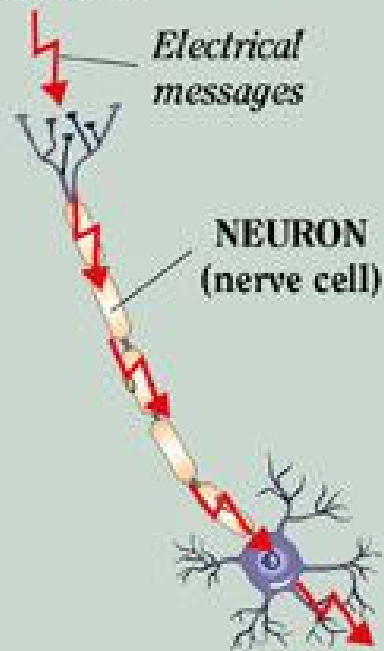
■ Epileptics seizures can set in via:



- Unknown etiology.
- Physical debilitation (illness, lack of sleep, exhaustion).
- Emotional stress
- Watching visual flicker

What Happens During a Seizure

Excessive electrical activity in the brain sends impulses along the nerves causing the symptoms of Epilepsy.



This excessive activity can lead to seizures

Examinations & Investigations

- **Neurological Examination**
- **Blood**
- **EEG**
- **ECG**
- **MRI / CT**



History



- **VERY IMPORTANT**

- **PRODROME**

(The first sign of an upcoming occurrence)

- **AURA**

(sensation in the mind and body that some people with epilepsy)

- **EYE WITNESS**

- **MEMORIES**

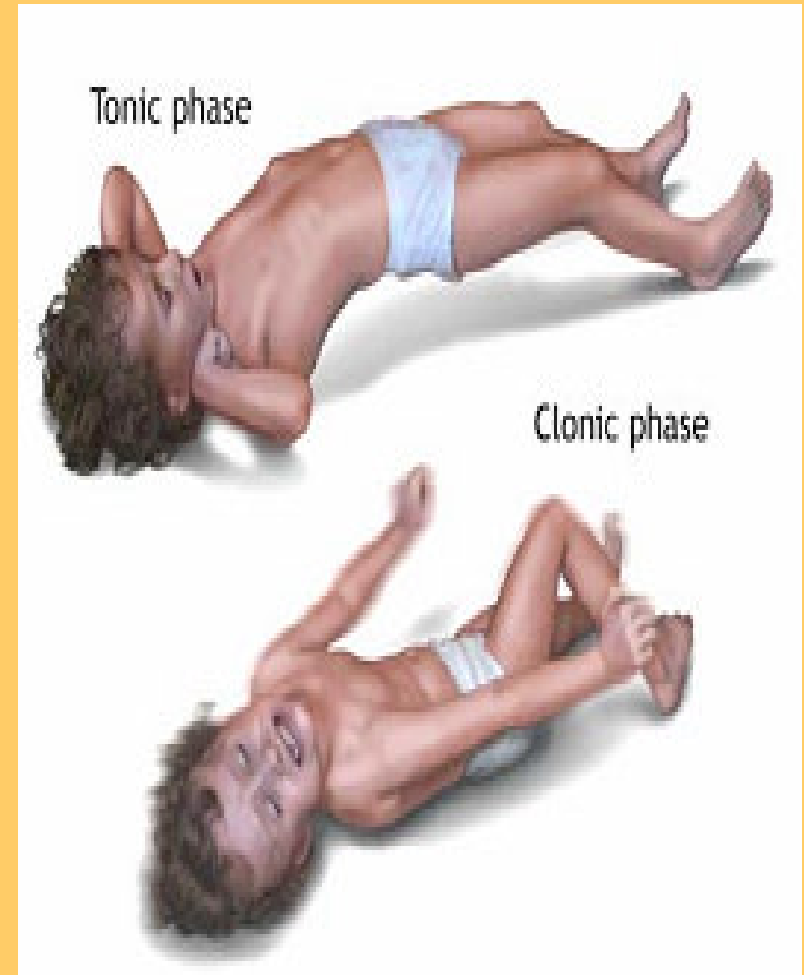
- **SEQUELAE**

- **MEDICAL HISTORY**

- **TRIGGERS**

Essential information for patient and family

- Epilepsy
 - **Common condition.**
 - **Usually self-remitting and brief.**
- Rarely, status epilepticus develops
 - **Ongoing seizures one after another or an unusually prolonged seizure of four to five minutes or longer.**
 - **Can be potentially dangerous**
 - **Seek professional treatment**
 - **Injectable medication required**



Essential information for patient and family

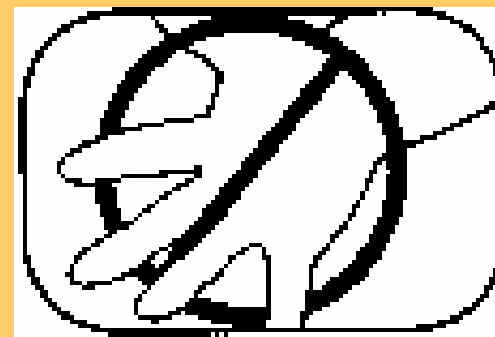
- **Most patients become seizure free with medications.**
- **Good result - 3-5 yrs seizure-free period with anticonvulsant medication**
- **Think of anticonvulsant medication reduction/withdrawal if above is achieved**
- **Continued seizures – patient at risk - eg while bathing, driving.**

Essential information for patient and family

- **Psychiatric symptoms can occur secondary to epilepsy**
- **Cognitive impairment - prolonged history of seizures / use of anticonvulsants**
- **Women with epilepsy need careful preconception counseling**

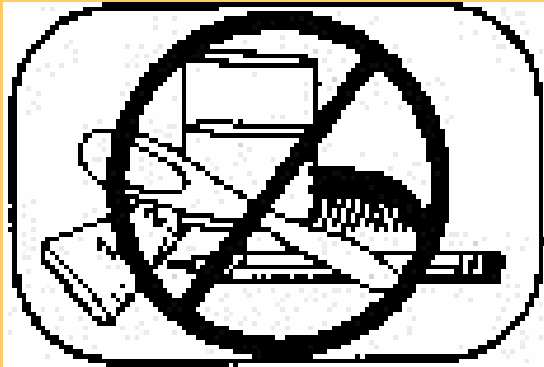
Do's and Don'ts for the onlooker

- **Don't try to stop the fit or move the patient**



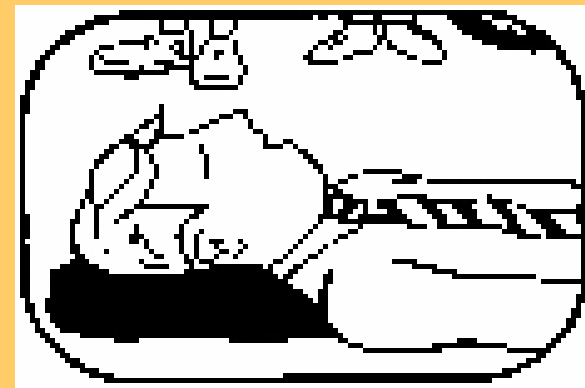
- **Protect the person from injury. Clear the area of furniture or other objects that may cause injury from falls during the seizure.**

Do's and Don'ts for the onlooker



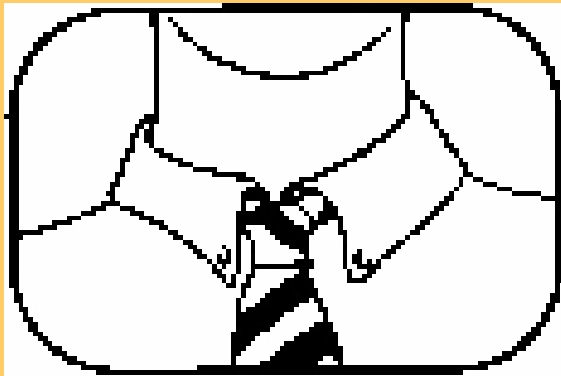
- Don't force anything into the mouth (like spoon, or water) during a seizure.

- Do allow enough air circulation and cushion head.



Do's and Don'ts for the onlooker

- Turn the patient to his/her side to prevent swallowing the vomit.



- Loosen tight clothing around the neck.
- Note the movements and changes to report to the doctor.
- Call the doctor if the convulsion lasts longer.

When to call the Doctor?

- If the person having seizures turns blue or stops breathing, turn him or her to the side to keep the airway or mouth open and prevent the tongue from obstructing the airway.
- Obtain professional medical assistance immediately.
- If there is any injury due to the fall after a fit, appropriate treatment should be given.



General management and advice to patient and family

- Record frequency and types of seizures in diary - helpful for determining treatment.
- Psychosocial aspects of treatment - clear and supportive education to patient and family.
- Essential limitation of activities -eg driving, swimming, use of stairs or crossing streets with traffic



General management and advice to patient and family



- Inform the child's school, teacher, bus conductor and friends and tell them the do's and don'ts
- Keep an extra lot of the child's medicines in the school bag
- Try to make him lead as much a normal life as possible
- Engagement with support groups

Does missing medications cause seizures?

- **Yes, it can.**
- **Most common cause of breakthrough seizures.**
- **Can lead to status epilepticus, if medication abruptly stopped altogether.**

Is it harmful to miss a single dose of seizure medicine?

- Often nothing bad happens
- Chance of having seizure will increase
- Missing one dose more likely to cause seizures if medicine is once a day.
- If medicine is two to four times a day, the risk from missing one dose is less.
- Several doses missed in a row - likelihood of breakthrough seizure high

What strategies can help prevent missing doses?

- Use activities as cues to remind taking medicine.
- Organize pills by day of the week and time of day.
- Wristwatch with an alarm
- Keep at least a one- to two-week supply on hand.
- Keep "emergency" supply at work, in purse or wallet, or perhaps in car
- For children, have the school nurse or teacher keep some medication on hand.
- When traveling, pack two supplies of seizure medicine, in both a carry-on bag and your checked luggage.

What would happen if patient stops taking seizure medicine?

- Stopping medication without doctor's advice is dangerous.
- Abruptly stopping some seizure medicines - withdrawal symptoms.
- Never stop taking a seizure medicine without talking about it with your doctor first.

Can sleep deprivation trigger a seizure?

- Yes, it can.
- Lack of proper sleep
 - Increase chances of seizure
 - Increase the intensity of seizures
 - Increase the length of seizures.



To avoid sleep deprivation, how much sleep is should the patient get?

- "Adequate sleep" varies
- Amount that leaves you feeling refreshed the next day.
- For most adults with epilepsy, - at least 7 hours a night.
- For some people, any kind of disruption of sleep-wake cycle makes seizures more likely even if they sleep for the same number of hours.



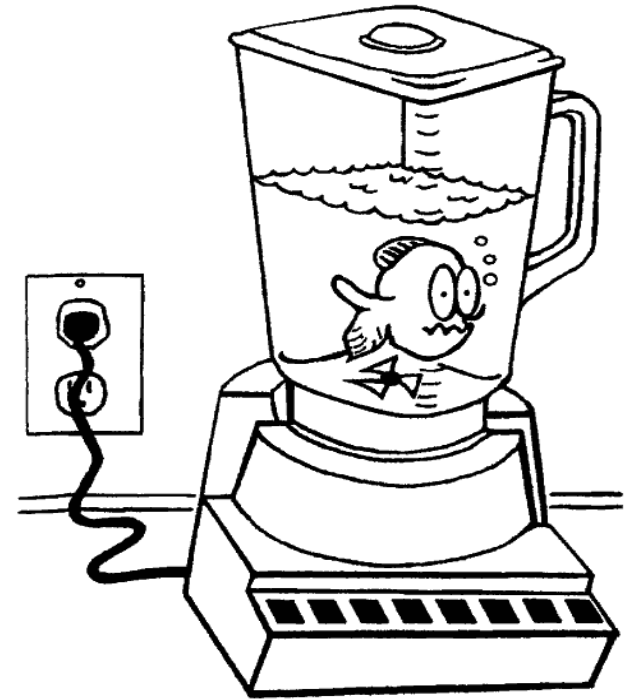
What are some strategies for getting a good night's sleep?



- **Sleeping environment - quiet and dark.**
- **Go to bed at least half an hour before trying to fall asleep.**
- **Do not watch television in bed**
- **Avoid caffeine for 6 hours before bedtime.**
- **Exercise daily but do not exercise within a few hours of going to bed**

How can stress cause seizures?

- Stress can affect brain function in the following ways:
- Trigger an increase in the breathing rate
- Leads to missed medication
- Cause hormonal changes -eg increase in cortisol
- Negative emotions related to stress, such as worry or fright, may cause seizures (limbic area).



**And you thought
there was stress
in your life !**

How to deal with stress?



- **Avoid known stressful situations**
- **Learn relaxation techniques / yoga**
- **Unavoidable stress**
 - **make extra effort to get enough sleep**
 - **take seizure medicine on time.**

Does the menstrual cycle affect the rate of seizures in women with epilepsy?



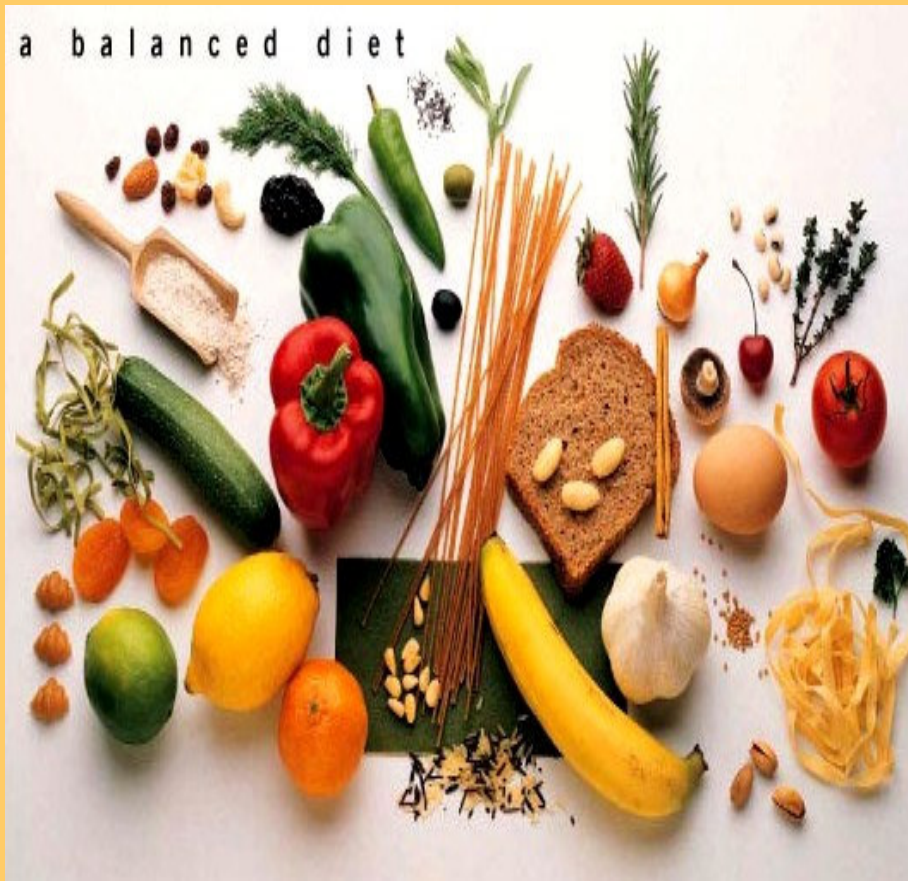
- **Yes.**
- **Premenstrual and ovulatory phases associated with highest seizure frequencies.**
- **Approximately 1/2 the women of childbearing age with epilepsy - increase seizures around the time of their monthly menstrual period.**

What strategies can doctors use that may reduce seizures associated with the menstrual cycle?

During the vulnerable period:

- **Some change in the amount of the daily dose of the antiepileptic medicines may be required**
- **Reduce water retention**
- **Take additional antiepileptic medicines**

Can changing eating habits improve control of seizures?



- Eat regularly and eat a balanced diet.
- Very low sugar levels in blood
 - seizures in some people

Can vitamins, herbs or amino acids help to treat seizures?

- **Research studies unable to confirm**
- **Probably most of them have no real effect on seizure control**
- **They can have side effects and some may be dangerous.**

Can low levels of minerals in the body affect seizure activity?

- Minerals are essential nutrients.

- Low levels of the minerals

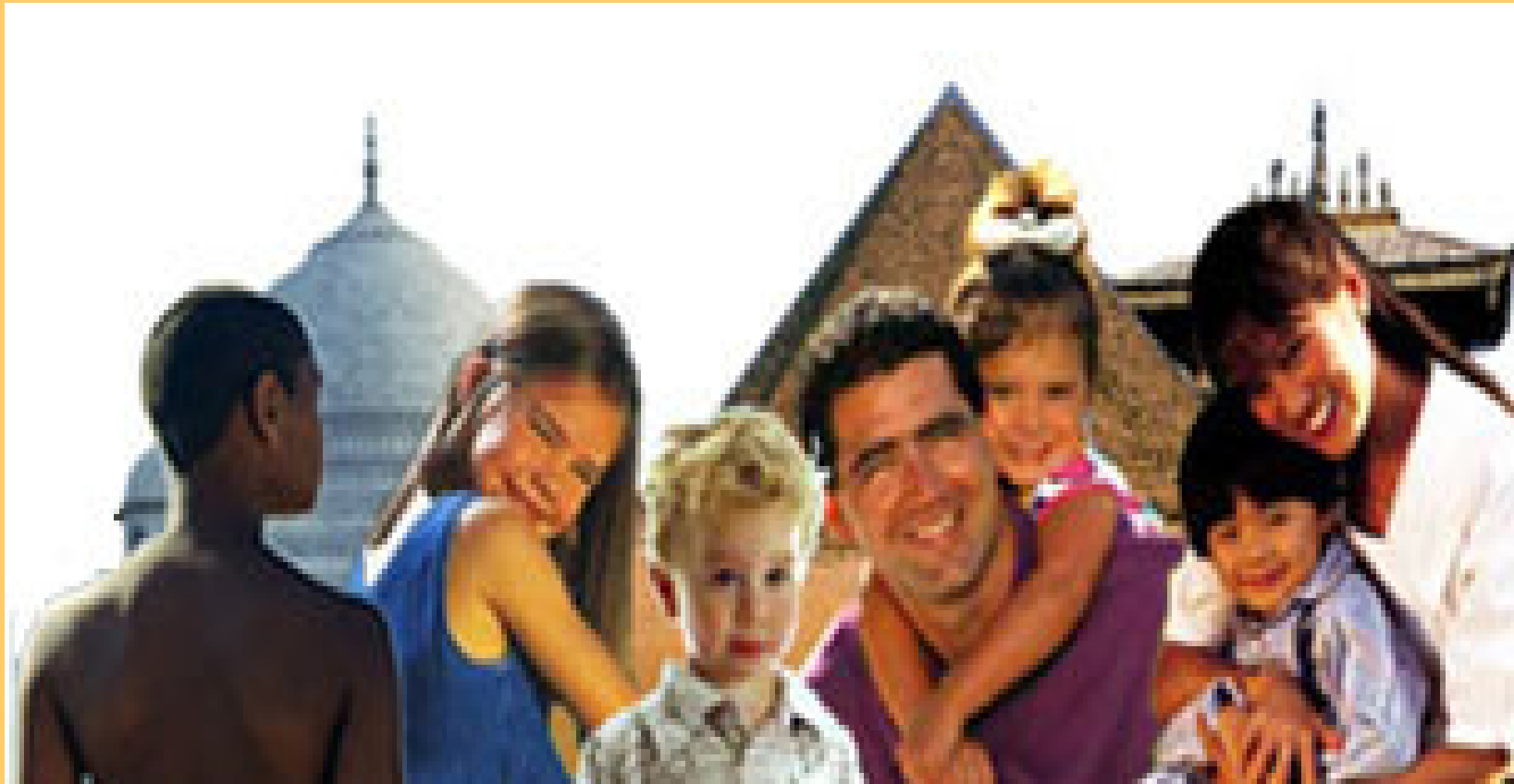
- sodium,
- calcium, and
- magnesium

can alter the electrical activity of brain cells and cause seizures.

SUMMARY

- **Epilepsy is a common disorder**
- **Potentially treatable and curable**
- **With adequate anti-epileptic medication a patient can lead a normal life.**
- **Regular intake of the medication is a must**
- **Regular follow-up with the doctor is required**
- **If the patient is seizure free for 3-5 yrs the anti-epileptic medicine can be gradually withdrawn under the supervision of a doctor**

YOUR CHILD IS NOT THE ONLY ONE TO SUFFER





THANK YOU