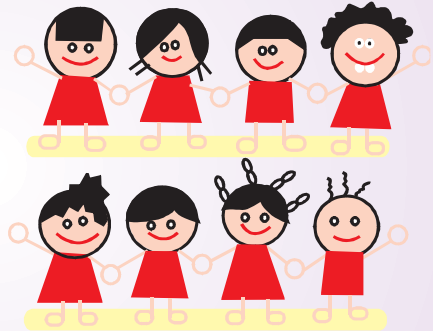




ALL YOU NEED TO KNOW ABOUT EPILEPSY !



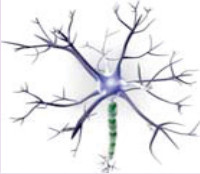
PARENTS / PATIENT EDUCATION GUIDE



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What is a seizure?

It is commonly known as convulsions/ fits/ *jhatka /chamki /daura*. It commonly presents with abnormal jerking of the entire body or one side of the body, abnormal deviation of eyes/face, abnormal sensations, transient loss of consciousness, bizarre behavior, blank stare or excessive ‘ day dreaming’.



What causes seizure?

It is caused by excessive abnormal activation of brain cells called *neurons*.

It does not occur due to ‘possession by evil spirit’ (as some people believe)!

What is epilepsy?

Every seizure is not epilepsy. Epilepsy is a condition of having two or more seizures without any apparent provoking factor. About 4 to 5 in every thousand people suffer from this disease.



What factors cause epilepsy?

Epilepsies that occur in otherwise normal children are often ‘genetic’ in origin. They could occur due to brain damage around the time of birth or early in life. Brain infections/infestations can also cause epilepsy. It may be due to abnormal structure of the brain, head trauma or brain tumors. Some defects in various chemical pathways of the body may also lead to epilepsy (metabolic). Some children with epilepsy have brown or white spots on the skin, red patch on the face or whorls of pigmentation (‘neurocutaneous syndromes’).

Whom to consult and what tests are necessary?

One should consult a pediatrician (child specialist) or pediatric neurologist. A detailed examination by the doctor usually reveals the cause of epilepsy in many cases. In some cases, examination may not offer any clue. Tests may be required depending on each case. Electroencephalography (EEG) and scanning of the brain (CT head) is done commonly. MRI brain is done in selected children with epilepsy. Investigations are not to be repeated for every episode.



Is there any treatment?

Treatment depends upon the underlying cause. Cure is available for few cases like some CNS infections, infestations like NCC, tumors and some *metabolic* causes.

Otherwise, drugs are given to control seizures in majority of cases but cannot cure the disease. Usually they are given for a period of 2 years after the last seizure and then gradually withdrawn. It is very important to adhere to the treatment schedule prescribed by the doctor, failing which seizures can occur again.

What to do if dose/s is/are missed?

One should try to fix time of the drug and take it as regularly as possible. But in case one dose is missed then it may be given as soon as one remembers or if the time for next dose has come then the missed +due dose may be given together, however if more than one dose is missed then consult your doctor.

Do these medicines have side effects?

All medicines have some side-effects but they are not seen in all. They depend on the medicine being taken but the common ones are sleepiness which gets better with time. You should immediately consult your doctor in case your child has skin rash, ulcers, jaundice, altered mental status, behavioural disturbances, cognitive decline, imbalance or vomiting.

After stopping medicines what are the chances that the child will remain well?

Around 70 % children remain well after medicines are stopped; this depends a lot on the cause of epilepsy and other neurological problems, if any. The risk of seizure recurrence after stopping medications is high if the child has any underlying neurological abnormality, family history of epilepsy, grossly abnormal EEG or head scan or some difficult to treat epilepsy conditions. Seizure recurrences commonly occur in the first 6 months after stopping medications.

What should I do when my child has seizure ?

Some Do's and Donts are given below:

Do's	Don't
<ul style="list-style-type: none"> ● Stay calm. ● Stay with your child. ● If possible, note the time the seizure starts and ends. ● Loosen tight clothing. ● Roll your child onto his side into the recovery position.(see figure 1) ● Move your child away from potentially harmful objects eg. furniture with sharp corners,water/fire sources. ● Place something soft under your child's head to stop their head hitting the floor. ● Wipe off any secretions from nose and mouth. 	<ul style="list-style-type: none"> ● Do not panic. ● Do not try to hold or restrain your child. ● Do not put anything in your child's mouth. ● Do not try to put your child into cool or lukewarm water to cool off.



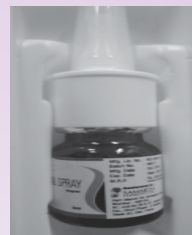
Figure 1 : Recovery position

Can I do something at home to stop a seizure ?

Remember, most seizures will stop within seconds or a couple of minutes without any medical treatment. Medications may need to be given if the seizure persists > 4-5 minutes. Commonly medications like midazolam or diazepam are used for this purpose. They can be given through various routes. You can use any of the following two ways to stop a seizure :

Steps to give Intranasal midazolam

1. Put the child in recovery position as demonstrated in figure 1.
2. Gently insert the nozzle of the spray bottle into one of the nostrils of the child. (Fig. 2a)
3. Press down on the nozzle to deliver the required number of puffs (as advised by the doctor) to each nostril.
4. If nasal spray is not available, Injection Midazolam (i/v 1mg/ml or 5mg/ml) can be used to administer required dosage through nostril dropwise as per the advice of your doctor. (Fig. 2b)



*Figure 2a :
Nasal spray*



*Figure 2b :
Midazolam
Injection*

Steps to give Buccal Midazolam

1. The appropriate dose of the drug will be advised to you by the doctor. Take a 2 ml syringe with needle attached. Insert the needle (with syringe attached) into the vial/ ampoule. Turn the bottle upside down and draw out the amount prescribed by your doctor. Turn the bottle upright and remove the syringe. Remove any air bubbles. Remove the needle.
2. Put the child on his side (as in recovery position-figure1).
3. Gently place the syringe (without the needle) into the space between the child's teeth and their cheek (Fig 3). Use the side closest to the floor. Once the syringe is in place slowly push the plunger down to squeeze out the medicine.
4. Hold the child's lips together on that side for a minute or two to prevent leakage. It will take 3-5 minutes to work because it has to be absorbed into the bloodstream.



Figure 3: Buccal Midazolam

Steps to give per rectal Diazepam suppository

1. The appropriate dose of the suppository will be advised to you by the doctor.
2. Carefully take the suppository out of the wrapper.(Figure 4)
3. Put the child on his side (as in recovery position-figure1). Bend the knees onto the chest. (Figure 5)
4. Insert the suppository into anus.
5. Hold buttocks together for 2 minutes.

It will take five to eight minutes to work because it has to be absorbed into the bloodstream.



Figure 4 : Rectal suppository



Figure 5 : A Mother giving rectal suppository to her child

Can seizure recurrence be prevented?

There are some general advises to prevent another episode of seizure. The child should strictly adhere to the medications prescribed by the doctor. *Right drug in the right dose at the right time* is important. Regular follow up is required and it is preferable to show your medicines to the doctor at every visit.

One should avoid any precipitating factors. Some epilepsies get triggered by watching TV, playing videogames, taking hot water baths, sleep deprivation, fasting or listening to music. These things should be avoided in these children. Children with epilepsy should also sleep well and avoid sleep deprivation.

What are the options if the child's epilepsy is uncontrolled on drugs?

One needs to consult a pediatric neurologist to check if the drug and the dose are appropriate. Some newer drugs may be tried for specific seizure

types. Certain special diets (e.g. ketogenic diet, LGIT) may be tried in cooperative children. Epilepsy surgery is another option to treat children with difficult to control seizures. An implantable device (vagal nerve stimulator) is also used for the same.



Can a child with epilepsy attend school?

Depending on the underlying cause, most children with epilepsy continue to do well in school. Parents should not think that studies will be a stress or burden for these children.

The school teachers/staff must be fully informed about child's condition. First aid measures should also be explained to them. They should be given the contact numbers of parents/doctor in case of need. Sleepiness can be a problem with some medications which may interfere with school timings. It usually decreases with time or otherwise dose/timing of the medication can be changed after consultation with the doctor.



Child Neurology OPDs	Tuesday & Friday 9 a.m. onwards	Room No.4, 5, 14
Development Clinic	Monday 2 p.m. onwards	Room No.5
Neurocysticercosis Clinic	Monday 2 p.m. onwards	Room No.11
Pediatric Neurology Clinic	Wednesday 2 p.m. onwards	Room No.3, 4, 5
Autism Clinic	Thursday 9 a.m. onwards	Room No.12, 13, D
Neuromuscle Disorders Clinic	Friday 2 p.m. onwards	Room No.3, 4

For any queries please contact

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