

# ***Epilepsy and its Management***

**(A Training Manual for Teachers & Students)**



***Do Not Neglect, Help Them***

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# **Epilepsy and its Management**

(A Training Manual for Teachers & Students)

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# **Epilepsy and its Management**

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## PREFACE

PGIMER, Chandigarh is a premier medical institution of North India, which provides high quality health care services to people. The institution's Neurology Department manages many serious and borderline epileptic patients, many of whom are children.

Treatment of epilepsy is quite long. It involves many visits and consultation by the affected family. But every time a patient has fits it is not necessary to consult a doctor again and again. Hence, there is a need that apart from the medical advice, people are empowered to take care of epileptic children themselves at home. Same applies to school teachers. They need to be made aware about management of epilepsy. Imparting such education through schools is beneficial because children spend at least 6 hours in the school everyday.

This book gives very easy tips to understand epilepsy and its management. This is a very commendable effort made by the authors. Writing this type of book, researching, compiling the facts and publishing it is a very difficult task. I would like to congratulate Dr. Sonu Goel, Dr. Vivek Lal, Dr. Amarjeet Singh and the other contributors for accomplishing this arduous task.

I sincerely hope that this book will help in enlightening the students and teachers about the basic facts about epilepsy and also help them to understand how to manage it.

अनिल कुमार गुप्ता

Dr. Anil Kumar Gupta  
Medical Superintendent  
P.G.I.M.E.R., Chandigarh

## Foreward

We all suffer from one or the other ailments, out of which, 80% can be treated by ourselves. In rest 20% ailments, we can start immediate first aid to a certain extent (we can do it ourselves till we reach a doctor). Epilepsy is one such ailment which requires immediate first aid attention and can be controlled by ourselves. Epilepsy is a disease, in which the patient has fits. In most of the patients, the fits get resolved on their own.

In our country, the estimated number of persons with epilepsy is approximately 55 lakh. Yet, most people do not have the adequate knowledge about this disease and how it should be managed. When a student or a teacher first sees a person having fits, he may wonder what is happening and how serious it is.

In this book, it is explained in a very easily understandable language that what should and should not be done in case of epilepsy. This manual is an easy to use guide for students and the teachers to understand, identify and manage epilepsy. The manual firstly explains about this disease, its manifestations, its spread and its causes. It then points out factors which trigger these fits, some other facts related to fits, and the role of school teachers in managing children with fits. This book makes it very clear about the “do's and don't's” of management during an epileptic fit. Readers are also advised when to consult a doctor.

Some epileptic children might even have lower mental capacity. This manual helps in identifying the reasons for such lower mental capacity in diseased. It is essential that such children are not labeled as “mad” or “insane”. Some people might panic when they see a person having an epileptic fit. Often, they indulge in practices which should not be restored to, when a person is experiencing a fit e.g. holding his arms and legs etc. Such kind of actions might do more harm than good to the person having the fits.

This book is neither intended nor recommended as a substitute for medical advice, diagnosis or treatment. Always seek the advice of your own physician or other qualified health care professional regarding any questions or doubts you have after reading the book.

**Dr. Sonu Goel**  
**Dr. Vivek Lal**  
**Dr. Amarjeet Singh**

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## A. INTRODUCTION

Our first reaction when we see a person having fits is 'panic' as we do not know "what to do" or "how to do". This is because our knowledge of fits comprises of hearsay and various myths. This forces us to fear the disease. The following text gives a detailed description of the disease, various facts about it and the ways to manage it.

## B. GENERAL FACTS ABOUT EPILEPSY

Quite often, we hear about people having "fits" or "seizures" ("*mirgi*"). This is epilepsy.

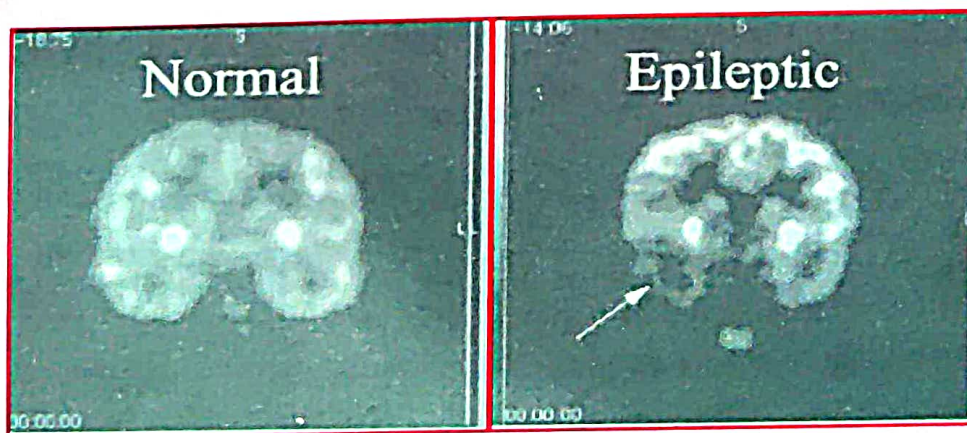
- 1) Epilepsy manifests as recurrent sudden attacks of fits. The patient may or may not lose consciousness. (fig 1)

(But it should be remembered, that in children, quite often, high fever may cause fits. Below the age of 6 years, 3-4 children out of 100 have seizures associated with fever. These are called 'febrile seizures'. This is not epilepsy.)



**Fig 1: Epileptic patient**

- 2) Epilepsy is a manifestation of some lesion/defect in brain of the patient (fig.2). It is not a fatal disease. It is a disease of the nervous system. But people with the disease should not be termed as mad/insane.



**Fig 2: a) Scan of brain in a normal person  
B) Scan of brain in an epileptic patient**

- 3) Epilepsy is one of the common childhood diseases. 1-2 out of 200 children have epilepsy. As such, in a school with 1000 students, around 5-10 may have epilepsy. In a school, epileptic children look like normal children only. (Fig 3)

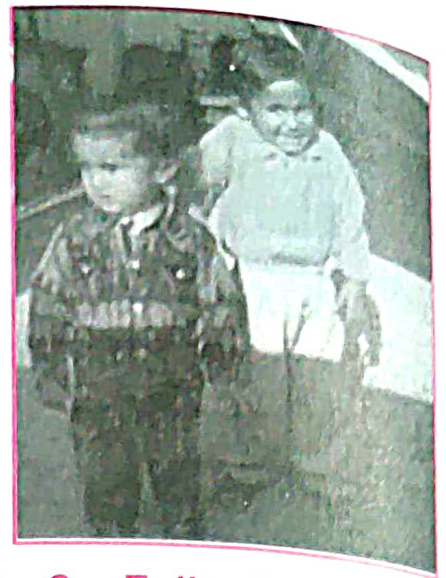


Fig 3: Epileptic children look like normal children

- 4) Epilepsy does not spread from person to person. Contact with an epileptic person does not lead to its spread. (fig 4)



Fig 4: Epilepsy does not spread from personal contact

- 5) Epilepsy is not caused by evil spirits, black magic or ill fate. It is not a result of a past sin. Hence, things like exorcism, 'mantras', magic etc. are not helpful in treating it. (fig 5)

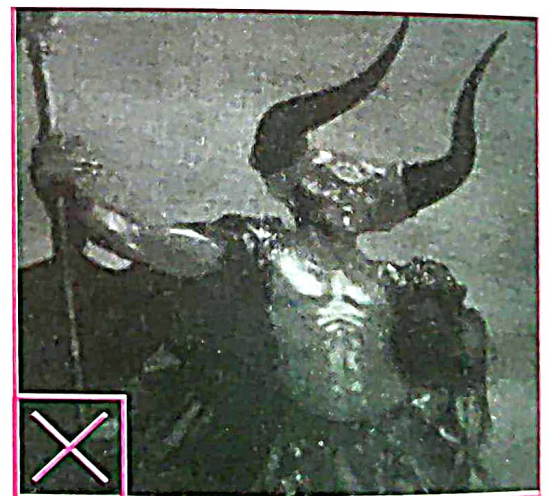


Fig 5: Epilepsy is not caused by demons



## C. SOME COMMON CAUSES OF EPILEPSY

In most of the cases, the cause of epilepsy cannot be identified. Following are the common causes of epilepsy:-

1. **Heredity:** Epileptic parents can transmit this disease to children. (fig 6)

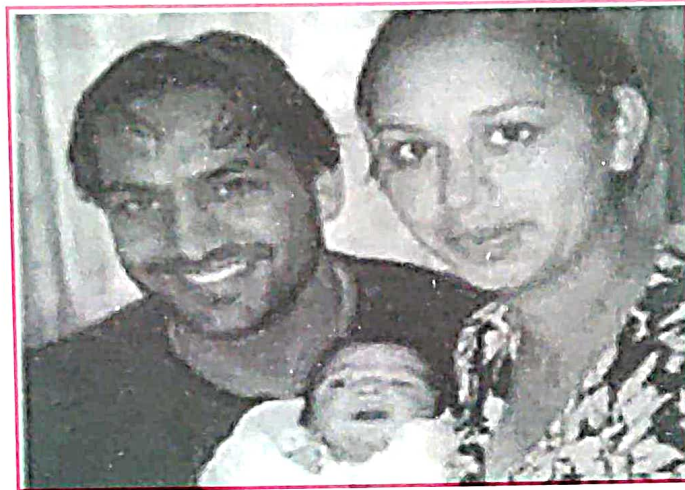


Fig 6: Epilepsy may be hereditary

2. **Brain infections.** Some diseases like TB, viral encephalitis etc may causes brain infections, which may lead to epileptic fits. (fig7)

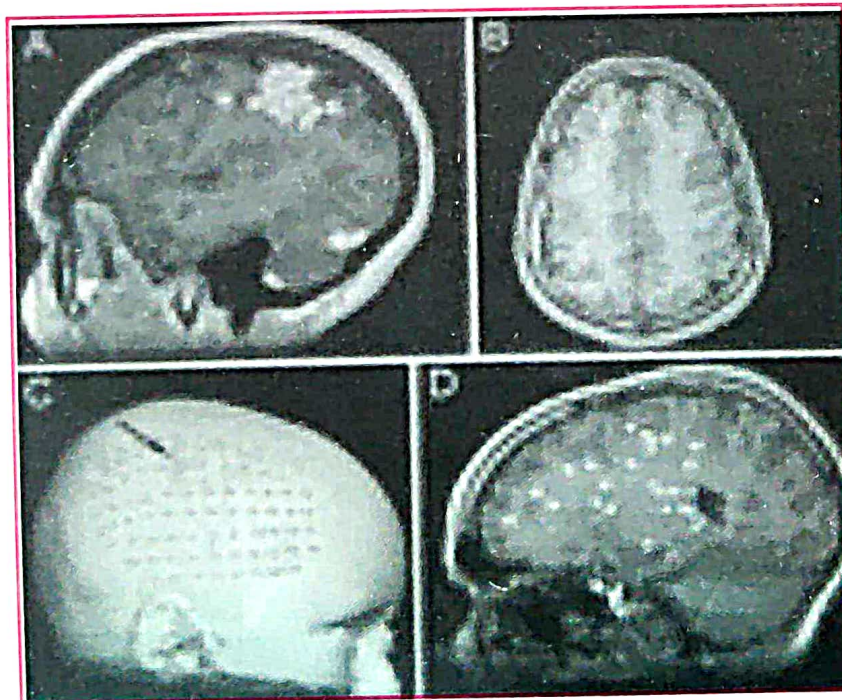




Fig 7: Epilepsy may be due to brain infections

## E. TYPES OF EPILEPTIC FITS:

Epileptic fits are mainly of four types:-

TYPES OF EPILEPTIC FITS	HOW CAN WE RECOGNIZE? (BEHAVIOR/SYMPTOMS)
<p data-bbox="135 392 638 470"><b>1 GENERALIZED FITS</b></p> <p data-bbox="127 492 805 616"><b>Stage- 1: Warning stage</b> (Duration: few seconds to few minutes)</p>  <p data-bbox="183 1164 758 1265"><b>Fig 12: Epileptic person having headache before the fits</b></p> <p data-bbox="111 1332 805 1467"><b>Stage- 2: Tonic stage</b> (Duration: 30 seconds to 60)</p>  <p data-bbox="175 1870 742 1982"><b>Fig 13: Stiffness and rigidity during a fits</b></p> <p data-bbox="127 1971 183 2027"><b>6</b></p>	<p data-bbox="837 492 1500 616">Before the onset of fits the person may experience:</p> <ol data-bbox="853 660 1452 952" style="list-style-type: none"><li>1) Headache (<b>fig 12</b>)</li><li>2) Mental irritation</li><li>3) Abdominal discomfort</li><li>4) Sensation of flashes of light, noises, bad tastes etc.</li></ol> <ol data-bbox="845 1444 1492 1915" style="list-style-type: none"><li>1) Sudden loss of consciousness</li><li>2) One falls down to the ground with or without a cry</li><li>3) Whole body becomes stiff/ rigid (<b>fig 13</b>)</li><li>4) Teeth and hands clenched</li><li>5) Stares blankly</li><li>6) Face becomes blue</li></ol>

### Stage-3: Clonic stage

(Duration lasts for 30 seconds)



Fig 14: Froth from mouth during fits

### Stage-4: Post-ictal stage (after the fits)

(Duration: few minutes to hours)



Fig 15: Unresponsive child after the fits.

## 2 MYOCLONIC FIT

(Duration: 1-2 seconds)



Fig. 3b

Fig 16: Jerky movements of child in myoclonic fits

- 1) Rhythmic jerky movements of arms and legs.
- 2) Froth appears at the corner of the mouth (may be blood stained due to tongue or lip bite occasionally) (fig 14)

- 1) Patient relaxes and remains unresponsive for some time (fig 15)
- 2) Patient may wake up briefly and go into sleep again for minutes to hours.
- 3) After waking up, the patient may complain of headache and fatigue.
- 4) May appear confused or depressed.

- 1) Involuntary jerky movements of hands, legs or body. (fig16)
- 2) Dropping of things from hand.
- 3) Child may fall.
- 4) Frequency vary from one to many fits in a day.

### 3 PSYCHOMOTOR FITS

(Duration:- 30-60 seconds)



Fig 17: Child with epilepsy

### 4 ABSENCE FITS

(Duration: 5-30 seconds.)

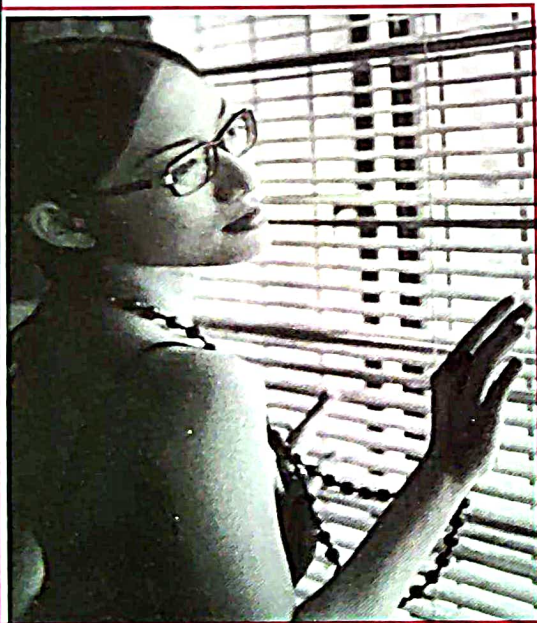


Fig 18: Patient looking blank in absence fits

Purposeless repetitive activities like

- 1) Lip smacking. (fig 17)
- 2) Lip chewing.
- 3) Patting a part of the body.
- 4) Picking at clothes.

- 1) Patient looking blank, eyes rolled up. (fig 18)
- 2) Dropping the things from hand.
- 3) Stopping the activity for a short while.
- 4) Rapid blinking & extreme confusion.
- 5) Frequency may vary from few to 100 fits per day.

## **F. EPILEPSY AND LOWER MENTAL CAPACITY**

Majority (80%) of epileptic children are normal. Only 20% epileptic children have impaired intelligence. The following are the causes of lower mental capacity of children with epilepsy:-

- 1) The diseases related to hearing and vision problems and weakness of arms and legs can also have a negative impact on academic performance of epileptic children.
- 2) Onset of fits at an early age which keeps on coming at a great frequency for many years.
- 3) Psychological factors like lack of self-confidence and inferiority complex.
- 4) Social factors like unhealthy attitude of family members, relatives, friends & teachers.
- 5) Unnecessary restrictions on going out, meeting friends and playing.
- 6) Adverse effects of antiepileptic drugs like:
  - a) Learning problems due to impairment in memory, attention span, mental processing, concentration, speed of action, arithmetic ability, reading, writing, spelling etc.
  - b) Behavioral problems like being mischievous, fighting with other children, irritative, hyperactive and drowsiness.
- 7) Frequent absence from the school due to fits and feeling of laziness for one or two days after a fit.
- 8) Due to poverty and high cost of drugs, inability of the parents to provide nutritive food, books etc to epileptic children. Therefore, these children need special assistance from the teachers to complete their education.

## **G. THE ROLE OF A SCHOOL TEACHER REGARDING AN EPILEPTIC CHILD**

Fits can occur any time of the day. An epileptic child may have fits during the school hours like: during prayer, studying in the class etc. Epileptic children cannot control these fits. They can also get injured during the fits. That is why, teachers should know about the first aid management of

epileptic fits. The following can be the role of teachers in the daily activities of epileptic children:-

1. The teachers should take all precautions regarding daily school activities of epileptic children.
2. Teachers should not over protect or over expect from epileptic children. They should be governed by same rules and regulations as for any other children in the school.
3. Epileptic children need to be told to move to a safe place when they experience warning signs of an impending fit.
4. Epileptic children should not be allowed to work alone in the laboratory.
5. Sports and recreational activities should be encouraged.
6. They should avoid swimming, mountaineering and working near fire places when they are alone. They can play video games. They can participate in singing, dancing, acting, painting, playing cards snakes & ladder etc.
7. Cycling and driving are restricted until the doctor permits.
8. The class teacher/ principal should ensure whether the child has consulted a doctor for epilepsy or not; How is the treatment of the child proceeding and whether he is taking the medicines on time or not.
9. The details of the address, phone number, doctors address etc should be maintained in a separate file or register which should be kept in the principal's office.
10. Encourage the child to carry identity card always with him stating about the following:

### I have Epilepsy

My Name	.....
Address	.....
Tel. No.	.....
Doctors' s Name	.....
Tel. No.	.....
Address	.....
Drugs	.....Time .....

## H. FIRST AID MANAGEMENT DURING EPILEPTIC FITS

If a child gets fits during school hours, don't become panicky. Do the following with confidence so that other children also pick up healthy attitudes from your behaviour. When a child has fits, the teacher can administer the following first aid:-

### 1 GENERALIZED FITS

#### STAGE- 1 (fig 19)

- 1) Ask the child and confirm the warning signs.
- 2) Allow the child to lie down in a safe place.
- 3) Place a rolled handkerchief between teeth to prevent biting of tongue or lips during fits.



Fig 19: Person having warning stage of fits

#### STAGE-2 (fig 20)

- 1) Stay calm.
- 2) Assist the child to lie down. If possible, place some soft cloth under the head.
- 3) Remove harmful objects like stones, knife, scissors, furniture etc, (which may harm) from the child.
- 4) Keep the child away from wall, fire source etc.
- 5) Take off glasses if present, loosen tight clothes (eg. neck tie, button of shirt).
- 6) Turn the child to the side so that saliva may flow out and allow easy breathing.
- 7) Do not let a crowd assemble around the child and provide privacy.
- 8) Ensure fresh air.



Fig 20: Person in second stage of fits epilepsy

### STAGE-3 (fig 21)

- 1) Allow the fit to run its own course.
- 2) Do not restrain the person having fits.
- 3) Do not leave the children



**Fig 21: Third stage of epilepsy**

### STAGE-4 (fig 22)

- 1) Allow the child to lie down on the left side until he recovers (5-20 minutes).
- 2) Make a quick examination for any injury and take care of it.
- 3) Wipe off the froth and clean the face
- 4) If urine or stool is passed clean the child and if possible, change the clothes also.
- 5) Promote comfort by providing a calm and quiet place.
- 6) Reassure the child as he regains consciousness
- 7) Familiarize the child to surroundings when he wakes up.
- 8) Offer a warm drink, if possible and allow him to resume activities.
- 9) Seek medical aid in case of recurrence of fits and any serious injury.
- 10) Check awareness by asking few general questions, e.g. What is your name? Where are you? etc.



**Fig 22: Person just after having fits**

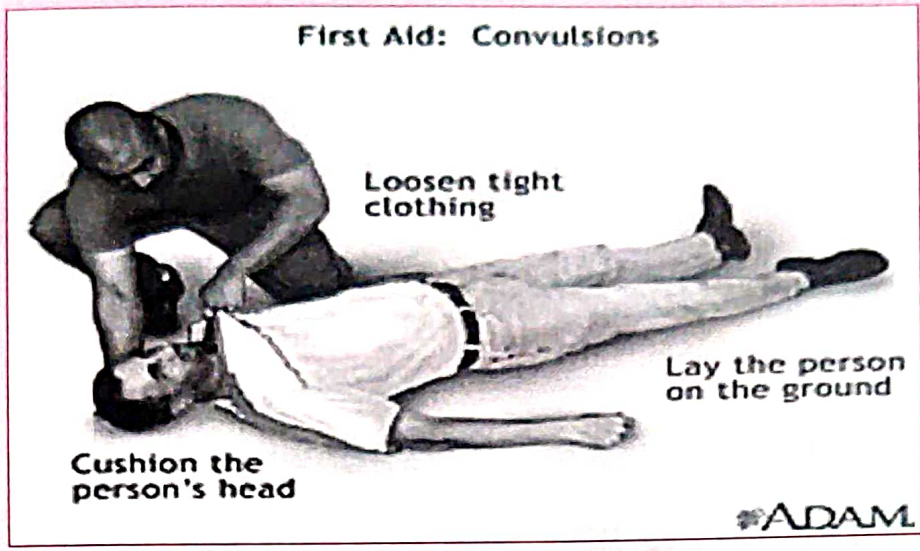
## 2 MYOCLONIC FITS

Its management is same as of the stage-3 of Generalized fits.



### 3 PSYCHOMOTOR FITS & ABSENCE FITS

1. Do not yell at or restrain the child.
2. If fits become generalized, follow the first aid management for generalized fits. (Fig:23)



**Fig 23: First aid management of an epileptic fit**

3. Prevent the child from injuring himself.
4. Do not let the child alone on roads etc.
5. Observe & reassure child if frightened or confused.
6. Try to count & record episodes of fits.

#### I. THINGS NOT TO BE DONE DURING AN EPILEPTIC FIT

1. Do not force the child for school activities.
2. Do not leave the child alone.
3. Do not crowd around the child. (fig 24)
4. Do not attempt mouth to mouth breathing except when child does not resume breathing on his own after fit.



**Fig 24: Do not crowd around the person having fits**



**Fig 25: Do not hold the arms and legs of person having fits**

5. Do not use force to insert spoon or anything in between teeth as this will cause injury to gums and may dislodge unstable teeth.
6. Do not put your finger in the child's mouth, he may bite.
7. Do not give metal objects to the child to hold. This does not control the fit rather would hurt the child.
8. Do not give water, food or medicine until the child is fully alert.
9. Do not hold tightly the arms and legs of the child.

## **J. WHAT LIFESTYLE CAN AN EPILEPTIC PATIENT ADOPT ?**

Epileptic children can go to school and can live a normal life. They should be treated like normal children in the school.

## **K. HOW TO CONTROL AN EPILEPTIC FIT ?**

Medicines can control epileptic fits. The duration of the treatment depends on the severity of the disease.

## **L. WHEN SHOULD YOU SEND THE CHILD HOME?**

After a major fit, send the child home accompanied by some responsible person. But after minor fits, the child can resume school activities.

### **M. WHEN SHOULD YOU CONTACT DOCTOR?**

1. When the child is getting epileptic fits, one after the other.
2. Fits last for more than 5 minutes.
3. Patient becomes unconscious between the fits.
4. Patient gets injured.
5. First episode of fits.

### **N. CONCLUSION**

After reading this manual, you must be clear about the disease, how it is caused, how it manifests and how it can be managed. It is very important not to panic when you see a patient having fits and manage him keeping the scientific facts in mind and with patience. It must be remembered that an epileptic patient can live a normal and healthy life in the right environment. Hence, we must help these persons in living a balanced life and provide a positive environment for them.

Seek the advice of your own physician or other qualified health care professional regarding any questions or doubt which remained unanswered in this book.

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## A REAL LIFE STORY:

Jeena was a normal 10 year old school going girl who was very cheerful and playful. She had a lot of friends and everybody used to love her and wanted to play with her. She used to score well in her exams and her parents were very proud of her. Then suddenly one day in the lunch break of her school, she fell down on the floor and started shaking vigorously and froth started to appear from her mouth. Everybody gathered around her and some people even held her arms and legs. Yet, others tried to force her mouth open to put some water in her mouth. She bit the hand of a person which caused him to bleed. She became so violent that she broke the spectacles of one of her teachers who was holding her down. This led to bleeding from her arms. The eye of the teacher holding her down was also injured. After few minutes, she started to calm down. When she gained consciousness she did not remember what had happened to her and why everyone was standing beside her. The teachers provided her with first aid and called her parents to take her home. She became normal just like she was before the fits.

But after this incident, her friends started calling her mad. Some people would also say that she was possessed by demons. Her friends refused to sit beside her or even play with her. She got very depressed and started avoiding school and started being very silent. She would speak to no one about what was bothering her. Her parents took her to a psychologist for counselling, where she told him the way she was being treated in her school. Her parents were shocked and immediately changed her school.

Luckily, they found a school where facts about epilepsy were being taught in the normal syllabus. She had many fits even after changing her school but since everyone understood the disease in this school, nobody created a fuss over anything. She was given appropriate medical attention and the support she required. She made friends again and resumed her regular activities just like before.

Today she has become a doctor, and is working for a renowned hospital. She is happily married and is living her routine life.

This story shows how a positive environment in schools can help an epileptic student. An epileptic child can also achieve success in his/her life.



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