

ANSWERS TO YOUR **QUESTIONS**

*Helping those with epilepsy by giving
them a better understanding of the
condition and its treatment*



INTRODUCTION

Epilepsy comes from a Greek word meaning ‘possession’. The Greeks believed seizures were caused by demons, and regarded them as a supernatural phenomenon. The true nature of epilepsy has long been distorted by myth and fear, and people continue to hold mistaken notions about the disorder. This brochure attempts to clarify what happens during an epileptic seizure, to look into the causes and effects, and examine the relationship between doctor and patient.

WHAT IS EPILEPSY?

Epilepsy is a physical condition caused by sudden, brief changes in how the brain works. When brain cells are not working properly, a person’s consciousness, movements or actions may be changed for a short time. These physical changes are called epileptic seizures. Epilepsy is sometimes called a seizure disorder. It affects people from all walks of life, from all races and all nations. It even affects animals.

The brain is a highly complex and sensitive organ, responsible for controlling motor movement, sensation, thought and emotion, as well as involuntary bodily functions such as heartbeat or respiration. The brain is the seat of thought and memory. Brain cells work together, communicating by means of electric signals. A seizure occurs when there is an abnormal electrical discharge from a group of cells. The type of seizure will depend on the part of the brain where the discharge originates.

WHAT IS THE PREVALENCE AND INCIDENCE OF EPILEPSY?

Epilepsy is far more common than most of us realize, affecting more than 300,000 Canadians, or more than 1% of the population. Each year, 1 person in 2,000 is diagnosed with epilepsy, which is about 14,000 new cases. Seventy-five to eighty percent of patients are diagnosed before the age of 18, 55% before the age of 10, and 44% before age 5.

WHAT CAUSES EPILEPSY?

In most cases, epilepsy is not hereditary. While a predisposition to develop the disorder may be hereditary, it can be said that parents do not directly transmit the disorder to their children except in some rare specific syndromes.

Epilepsy can strike anyone at any age. However, persons who develop seizures during their formative years tend to experience a reduction in the intensity and frequency of their seizures as they grow older. In approximately 50% of cases of childhood epilepsy, seizures disappear completely.

A number of factors are responsible for the lesion in the brain that can lead to epilepsy. Seventy-five percent of the time the exact cause of the damage is unknown. Among known causes, the most common are:

- Brain tumor and stroke;
- Head injury. The more severe the injury, the greater the chance of developing epilepsy;
- Injury, infection, or systemic illness in pregnant women affecting the child's brain. Brain injury to the infant during delivery;
- Aftermath of infection (meningitis, viral encephalitis);
- Poisoning due to substance abuse (alcohol or street drugs).

HOW MANY TYPES OF SEIZURES ARE THERE?

The characteristics and frequency of seizures vary greatly. Medical terminology has accordingly broadened in an effort to more precisely identify different types of seizures.

An essential distinction in the modern system of classification is between partial and generalized seizures. If the excessive electrical discharge is restricted to a given area in the brain, the seizure is termed partial. If the entire brain is involved, the seizure is generalized. Medical terminology has identified many types of seizures. The following are the most common.

Simple Partial Seizures

Formerly known as focal seizures, they are characterized by strange or unusual sensations, for example, odors or visual abnormalities. Sudden or restless movement, hearing or vision distortion, stomach discomfort, a sudden sense of fear are all characteristics of this type of seizure, but consciousness is not impaired.

Complex Partial Seizures

Formerly psychomotor or temporal lobe seizures, they are characterized by complicated motor action involving loss of awareness. The person appears dazed and confused—random walking, mumbling, head turning, or pulling at clothing may be observed. These automatisms, or repeated idiosyncratic motions, cannot be recalled by the person. In children, this seizure should not be confused with the absence seizure described below.

Generalized Absence Seizures

Formerly known as petit mal seizures, they are characterized by a complete loss of awareness. The person may stare into space. Absences are not preceded by a warning (aura), and are followed by normal activity. Often these seizures occur in children and often disappear by adolescence. They may, however, develop into other types of seizures, such as complex partial or tonic-clonic. Absences rarely affect adults.

Tonic-Clonic Seizures

Formerly grand mal, these seizures are a generalized convulsion occurring in two phases. In the tonic phase, the person loses consciousness and falls, as the body grows rigid. In the clonic phase, body extremities jerk and twitch. After the seizure, consciousness returns slowly. If a tonic-clonic seizure begins locally (with partial seizure), it may be preceded by an aura. This seizure, while perhaps the type of epilepsy most visible in the public mind, is not the most common. Approximately two-thirds of people with epilepsy have complex partial seizures.

Status Epilepticus

Status epilepticus is a term describing a state of recurring seizures between which consciousness does not return. This type of seizure demands immediate medical care, as it can lead to severe brain damage and even loss of life.

IS THERE ANY WARNING BEFORE A SEIZURE?

Some people experience a sensation called an aura, or warning, before a seizure starts. The aura may occur far enough in advance to give time to lie down and prevent injury from falling. The type of aura experienced varies from person to person. Some people feel a change in body temperature; others, a feeling of tension or anxiety. In some cases, the aura manifests itself as a musical sound, a strange taste, or a striking odor. A precise description of an aura assists a doctor in identifying the region of the brain where the initial electrical discharge originates. Auras are not necessarily followed by full-scale seizures. In fact, the aura is a simple partial seizure in itself.

A person with epilepsy may experience one kind of seizure only or several different kinds, either during the same episode or at different times. Every effort

must be made by the doctor, family, and person with epilepsy to determine what kind of seizure the person has. This information is crucial to achieving the best treatment for the seizures.

FIRST AID

Most people are unaware of first aid procedures to help someone who has a seizure. This lack of awareness may prove harmful. People who don't know what to do often end up doing more than they should or nothing at all.

Tonic-Clonic

First aid for an epileptic seizure is not complicated. The most essential things are to protect the person from harming themselves, then wait for the seizure to pass.

Points to remember:

- Do not insert objects between the person's teeth. It is physically impossible to swallow one's tongue, and forcing the mouth open with a hard object could damage teeth and gums.
- Remain calm and reassure both the person and the onlookers.
- Move dangerous objects out of the way. Remove glasses and loosen tight collars or clothing. Relocate the person only if in a dangerous position.
- Do not restrain or try to move the person. Let the seizure run its course. It is pointless to try to stop it. Don't panic if the person seems to have stopped breathing momentarily.
- Turn the person gently on the side to keep air passages clear. Place something soft, a folded jacket for example, under the head.

- It will probably not be necessary to call a doctor. Get emergency aid only if a seizure lasts more than 5 minutes, or if a second seizure immediately follows the first.
- As consciousness returns, talk to the person in a soothing, reassuring way. Let him or her rest for a few minutes, help him or her get reoriented and offer to call a taxi or relative.
- When a person recovers from a seizure, he or she is often greeted by a crowd of gaping onlookers. You can make recovery much more pleasant simply by knowing what is happening and how to respond.

Absence

No first aid needed.

Complex Partial

Do not restrain the person. Protect him or her by moving sharp or hot objects away. If wandering occurs, stay with the person and talk quietly.

Simple Partial

No first aid needed.

DO I UNDERSTAND MY DIAGNOSIS?

As you know, a seizure is an outward sign of a temporary malfunction in the controls of the brain. The seizure may be a convulsion, a brief stare, muscle spasms, odd sensations, automatic behavior, or altered consciousness. Your doctor, however, will tell you exactly what kind of seizure you have.

When someone who has had a seizure seeks medical help, the doctor will want to resolve the following issues:

- was the seizure caused by a short term problem (like fever or infection) that can be corrected?
- was it caused by a continuing problem in the brain?

- is there anything about the structure of the brain that could cause seizures?
- was the seizure an isolated event, or does it mean that the person has epilepsy?

Your doctor will try to find the answers to these questions through:

- a detailed medical history
- a thorough physical examination, especially of the nervous system
- analysis of blood and other body fluids
- electroencephalographic (EEG) recordings
- magnetic resonance imaging (MRI) and/or computerized tomography (CT) scans

The number of tests ordered will vary, depending on the needs of each individual case. Following is a list and explanation of the kinds of tests you may be asked to take.

Blood Test and Lumbar Puncture

Several tests are run on blood samples. These tests look for signs of infection, anemia, or other conditions. They check the levels of vital minerals or poisons, such as lead, which may cause seizures. Blood and urine tests may also be ordered to check on liver and kidney function. Sometimes, if the doctor thinks the seizure might have been caused by infection or bleeding in the brain, he may order a spinal tap. This procedure removes a small amount of fluid from the spinal canal so it can be analyzed. All these tests are designed to find out whether the seizure had an underlying cause that may be treated directly.

Electroencephalograph (EEG)

The electroencephalograph (EEG) is a machine that translates the electrical activity of the brain into series of wavy lines. Normal electrical activity makes a recognizable pattern. Seizure-causing changes or irregularities produce different patterns. It's like a polygraph test, except thin wires, called electrodes, are pasted on

the scalp of the person being tested. Doctors can often identify the patterns likely to be present when someone has epilepsy. The recording may also show which part of the brain is affected. Having an EEG is a painless, safe procedure. The machine cannot read your mind or give you an electric shock. It doesn't measure intelligence or reveal mental or emotional illness. It is not used to treat or to cure – just to find out.

CAT Scanning

Computerized tomography (CAT or CT) scanning, a procedure introduced in the early 1970s, has revolutionized the ability to 'see' the brain. Low-dose X-rays are detected and interpreted by a computer, which then generates a picture "just as if we had cut a slice of the brain". The principal reason for a CT scan is to see whether the seizure had a cause that can be treated surgically. The CT can also reveal other causes for which there may be specific treatments.

Magnetic Resonance Imaging (MRI)

While CT scanning has revolutionized our ability to 'see' the brain by taking pictures of the inside of the brain, magnetic resonance imaging (MRI), which is even newer, has increased our ability to look inside the brain, as it were, even more clearly. Unlike CT scanning, MRI does not employ X-rays but rather uses a huge magnet to create an image which is then analyzed by computer in a fashion similar to the CT. It produces pictures in even greater detail.

The only disadvantages of the MRI are that, with current equipment, a scan takes about forty-five minutes, during which the person must lie perfectly still in the tunnel-like machine and thus may require sedation; also, the test is more expensive than a CT. When, however, detail of the brain is important, or when subtle changes must be seen, the MRI is indicated.

MRI scans may show tumors, abnormal blood vessels, cysts, and areas of brain cell loss or other brain damage. These tests apply to both adults and children.

Something abnormal on a scan has not necessarily caused the seizures and may not cause seizures in the future. Only if the abnormality on the scan appears in the proper location of the brain to have caused the seizures can we presume cause and effect.

WHAT KIND OF MEDICATIONS ARE USED TO TREAT EPILEPSY?

Modern science has greatly improved anticonvulsant drugs which have dramatically changed the lives of people with epilepsy. And though none of the existing drugs can cure epilepsy, if a carefully prescribed and well-followed regimen of medication is respected, it has been found there has been an increase in control and prevention of seizures, and in many cases, a complete elimination of seizures altogether.

Whenever possible, physicians use monotherapy, the use of a single drug, to control seizures. Sometimes seizures are more difficult to control and you may have to take more than one medication. Even though the obligation to follow a strict course of anticonvulsant therapy can be frustrating, the right medication can greatly improve your ability to lead a full and active life.

Reaction to a given drug varies from person to person. Medication that works for one person with epilepsy will not necessarily work for another. Of two people taking the same drug, one may experience side effects while the other will not. By the same token, some drugs will reach a therapeutic, seizure-preventing level in a patient's bloodstream more quickly than other drugs.

For these reasons, it may take some time to customize the dosage and/or choice of drug(s). Doctors try to achieve a balance by prescribing the medication that offers the greatest degree of seizure control with the fewest side effects.

Drugs and Compliance

Your drug therapy requires your active participation. If you have confidence that you are being properly treated, it will contribute to better emotional well-being and you may even have fewer stress-related seizures. So it's important that you trust your doctor and communicate clearly with him or her.

Here are some important points to remember if you take anticonvulsant medication:

- Take the prescribed medication. Too little medication can lead to a seizure.
- Never stop taking medication abruptly. If you do, you may run the risk of life-threatening non-stop seizures.
- Don't take other people's pills. The medication that works well for a friend may not work for you.
- Avoid drinking alcohol or taking street drugs with your medication.
- Alcohol can interfere with anticonvulsant drugs and can prevent them from reaching therapeutic blood levels. Many anticonvulsants cause sedation or sleepiness and may lower a person's tolerance to alcohol. At the same time, be sure not to miss your medication simply because of moderate use of alcohol.
- Find out how a new medication affects you before driving. You may be able to function perfectly, but the drug may make you drowsy, something you will need to know before attempting to drive.
- Medication has to be taken at regular intervals. Consult your physician if you miss a dose. Don't assume that you can make up for a few missed doses by taking them all at once.

- Inform your physician if you've been missing doses and having more seizures as a result. Otherwise he or she may assume that your dosage is too low, decide to increase it, and you may find yourself over medicated.
- Use special containers, available at drugstores, to count out a day's supply of pills if you have trouble remembering how to take your medication in sequence. This suggestion applies to people who must take more than one type of anticonvulsant drug.
- Don't run out of medication. Set up a reordering schedule that makes the procedure automatic. Similarly, if you are going to be out of town, be sure to take along enough medication to last until your return. You should also carry a copy of your prescription with you.
- Keep all medication locked up and away from children. If you plan to carry medication in a container other than a drugstore bottle, make sure that the container bears your prescription label. In some places, it is actually illegal to carry medication in anything other than its original container.
- In conclusion, anticonvulsant drugs successfully prevent seizures for most people with epilepsy who take them regularly and as prescribed.

DRUG SIDE EFFECTS AND WHAT TO LOOK FOR

The newer anticonvulsant drugs are generally very safe, but side effects can, and do, occur. Their degree of severity depends on the kind of medication being taken, the dosage, and the individual response of a patient to the medication. Minor side effects are common at the start of drug therapy but an allergic reaction in the form of a rash is a severe adverse condition that necessitates an immediate change to another medication. A physician should be notified immediately.

The most frequently reported side effects of anticonvulsants are drowsiness, irritability, nausea, rash, lack of physical coordination and, in children, hyperactivity. Emotional changes may also occur. Occasionally, a drug will actually increase, rather than decrease, the number of seizures a person experiences.

In addition, particular care must be taken when a drug shows signs of affecting blood cells. Instances of fever, sore throat, mouth ulcers, easy bruising, pinpoint bleeding under the skin, or any other change in physical wellbeing, should be reported immediately.

WILL ANTICONVULSANT DRUGS AFFECT PREGNANCY?

Although epilepsy is the most common major neurological disorder encountered in pregnant women, it only occurs in 0.3 to 0.5 percent of all pregnancies. While it is true that a woman with epilepsy may have more complications in her pregnancy than usual, the chances are greater than 90% that she will have a normal child.

According to results of current research, there is a slightly increased chance that babies born to mothers with epilepsy may have some problems. However, the risks are so slight that having epilepsy should not discourage or prevent you from becoming pregnant if you wish to have a child.

If at all possible, you should consult your doctor regarding medication before you decide to become pregnant. You should be absolutely certain that the medications prescribed for you are still necessary and that you are taking the right type of medication in the correct dosage. And once a regimen of medication has been established, never deviate from it.

WHY IS IT IMPORTANT TO MONITOR BLOOD LEVELS?

Antiepileptic drug-level testing can help a physician achieve seizure control by monitoring the presence of a medication in a patient's bloodstream. The bloodstream is the pathway to the brain and, therefore, leads medication to the centres of the brain in which seizures begin. If a drug's blood level is too low, seizures may occur and the dosage will have to be increased. Conversely, too high a drug level may cause a patient to experience side effects, such as drowsiness or confusion. This necessitates a reduction in dosage or, possibly, a change to a different medication.

Generally, drug testing should be performed during the course of treatment, and again when good seizure control has been established. Subsequent tests may be carried out if there are changes in control, or if side effects occur.

WHEN IS SURGERY NECESSARY IN THE TREATMENT OF EPILEPSY?

There are over 280,000 Canadians dealing with epilepsy and about 40% have seizures that are not well controlled by medication. Brain surgery may be an alternative and it's being used more and more often.

Improved technology has made it possible to identify more accurately where seizures originate in the brain, and advances in surgical techniques have made surgery much safer. As a result, doctors are turning to surgical intervention for those patients who don't respond to conventional drug therapy.

The reasons to consider this alternative are the prospect of facing a life-time of ineffective drug therapy and severely compromised social, intellectual and professional functioning resulting from repeated seizures.

The following kinds of seizures respond to surgery:

- partial seizures of temporal or extratemporal origin;
- secondary generalized seizures (attacks that begin locally and spread to both sides of the brain). For these two types of seizures, a cortectomy, or surgical removal of the area where the seizures begin, is preferred;
- unilateral, multifocal epileptic seizures associated with infantile hemiplegia, and generalized seizures, specifically those resulting in violent falls and injury, as well as Lennox-Gastaut syndrome. These seizures may be helped by sectioning (cutting) the corpus callosum. The corpus callosum is the major pathway connecting one hemisphere of the brain to the other. Sectioning it prevents the spread of the epileptic discharge from one hemisphere to the other.

WHAT HAPPENS BEFORE SURGERY IS CONSIDERED?

There will be a complete neurological evaluation which will include detailed information of the seizures and drug treatments to date. Your doctor will want to know if there has been a reasonable trial period on conventional drug therapy, and he or she will carefully assess the side effects and medication compliance before you are referred to an epilepsy clinic.

Although most surgery patients are adults who have fought a long and unsuccessful battle for seizure control, many children with severe seizures are also being treated through surgery. Even so, it is not a suitable treatment for everyone who has epilepsy, or for everyone with poor seizure control.

SEIZURES, SPORTS AND SAFETY

Generally, there are no definite reasons for people with epilepsy to refrain from sports activities. Each individual, however, should consider the kind of activity and the degree of seizure control in his or her case. In some sports, loss of consciousness at critical moments could lead to disastrous physical injury.

For example, high tower diving, parachuting, hang-gliding, boxing, and events involving motorized vehicles are not advised. Participating in contact sports like hockey, football and soccer or recreational water sports such as water polo, boating or water skiing will depend on how well your seizures are controlled.

The best overall advice for anyone with epilepsy, particularly preteens and teenagers, is to use common sense, discuss the specific situation with your doctor, and be sure that supervisors and coaches are aware of the nature of the seizure type and know what to do if a seizure occurs.

Swimming, if accompanied by someone with life-saving skills, is permissible. Here again, it is largely a question of how often you have seizures and what your doctor recommends. A child or adult with good control should be able to swim safely, so long as he or she does so in the company of others who are aware of the epilepsy and are sufficiently good swimmers themselves to help if a seizure should occur. A seizure-prone person should probably limit swimming to those occasions when close supervision is available.

Water sports in general are always a potential hazard when a person has epilepsy, but with proper attention to safety, participation is possible.

People with epilepsy may not enroll in a scuba-diving course without written permission from a doctor. According to national scuba-diving regulations, a doctor must state if a person has been seizure-free for an acceptable period of time to participate in this sport.

Bathing at home can be potentially dangerous as well. The best preventative strategy against drowning

in a bathtub is use of a hand-held shower with the water continuously draining. If possible, the flow of water should be cut off when the shower-head is released to prevent the tub from filling if the drain is blocked during a seizure. If a hand-held shower is not available, a conventional overhead wall-mounted shower can be used, provided the individual is sitting down.

HOW DO I TELL MY DOCTOR HOW I FEEL?

The first time you heard that you or a loved one had epilepsy, that is probably all you heard. Any other information about the disorder and any medications that may have been prescribed were probably forgotten in the emotional turmoil of the moment. This is quite normal; you should feel comfortable about scheduling another appointment to go over that information again and to discuss how you are feeling.

In fact, this is the perfect time to start practicing being assertive in your relationship with your doctor and other caretakers. Write down questions as you think of them, and bring them in to each visit. Tell your family what you need and how you feel, listen to them and learn how they feel about epilepsy; continue to ask for explanations from your doctor until you are satisfied.

When you do see your doctor, he or she will want to know how you are feeling, what effects your medication is having on you, and how many seizures, if any, you've been having lately. Keep track of your seizures, or have a family member chart them so you will know if they are increasing. It's wise to prepare a list of questions to ask him or her before you step into the office.

HOW CAN I HELP MY DOCTOR? SOME QUESTIONS TO ASK...

Good medical care is based on a partnership between doctor and patient, or the patient's family. If you have epilepsy and you'd like to play a more active role in your own care (or your child's care) then the following ideas are important to act on.

These ideas are designed to help you talk about your treatment with your doctor so you'll know more about what is being done and why. When you have questions about epilepsy and how it's being treated, write them down on a list as you think of them. Bring them with you when you see your doctor. If the doctor uses a word you don't know, ask him or her to explain what the word means.

If there are several things you want to talk about and there isn't time at your regular appointment, tell the doctor you'd like to make a separate appointment to go over them in detail; ask in advance to have a longer appointment scheduled for you.

If seizures or side effects have occurred, or if other things have happened that seem unusual since your last visit, tell the doctor about them. Sometimes people hesitate to say they're not feeling well, or that they have been having seizures because they don't want to disappoint the doctor. Perhaps they're afraid he or she'll be angry because the treatment isn't working. But unless the doctor knows seizures are occurring, he or she can't make the adjustments that might prevent them.

Sometimes people say they've been seizure free, thinking that only big seizures count. They forget to mention that they've been having little blackouts or memory lapses. But it's as important for the doctor to know about the blackouts, auras, or little fragmentary seizures as it is to know about the more dramatic ones.

It may also make a difference in the kind of medication you take. If you've been taking less medicine than the doctor prescribed and have had a seizure, explain that you took less. Or if you missed a dose of the drug, report that too.

ESTABLISHING TRUST WITH MY DOCTOR

Establishing trust with your doctor is very important. But, if you're having trouble or are not comfortable with your physician, then you should get a second opinion. Your doctor cannot refuse you, so if you don't trust your doctor, don't hesitate to seek another opinion. It's your right.

WHEN GETTING A SECOND OPINION IS NECESSARY

Epilepsy is often treated by family physicians, pediatricians, and internists. However, if seizures continue after efforts to stop them, or if side effects are a problem, it would be wise to seek out a neurologist.

A neurologist is a physician with special training in brain disorders, including epilepsy.

In selecting a specialist, whether through referral from your own physician or from some other source, you will want to know if he or she is a neurologist with a special interest in epilepsy.

When seizures are very resistant to the medications that usually control them, you may be referred to a clinic which specializes in epilepsy, or you may decide to seek one out on your own. Here's what you should look for if you do either.

Epilepsy clinics have a different range of services and staffing, so before making a decision, you may want to ask what services or tests are necessary, and if this facility provides them.

An epilepsy clinic should be staffed by the following specialists: neurologist, neurosurgeon, neuropsychologist, clinical nurse and others with training and experience in epilepsy. Neurodiagnostic equipment should also be available and, in all cases, electroencephalography and magnetic resonance imaging should also be available to identify and exclude other forms of

neurologic disease. In addition, you'll want to know if the clinic will help with referrals to services provided elsewhere, such as vocational services. Does the clinic provide patient education? If so, how does it help patients and families with problems related to epilepsy? Find out if there is a local epilepsy organization in your area.

When you have been referred to a new doctor or epilepsy clinic, you will want to ask your original doctor to forward copies of your records to the doctor who will be reviewing your case.

HOW CAN MY DOCTOR HELP ME GET BETTER CARE THROUGH APPROPRIATE TREATMENT?

There are many medications on the market today including phenytoin, carbamazepine, phenobarbital, valproate and primidone, to name a few. But for the first time in recent years exciting new drug therapies have become available to Canadians with epilepsy. Most of the new drugs are being used as “add-on” drugs to existing therapy. This means that when medication is ineffective by itself, a combination of medications can obtain the desired control of seizures. But some of the new drugs are beginning to succeed as important first-line drugs. Established drugs, however, that are successful in keeping seizures under control without side effects, should not be replaced by new drugs.

CONFIDENCE AND A MORE SATISFACTORY LIFESTYLE

Physicians, today are concerned with your quality of life and are especially concerned with how you feel, function and perceive life. Your overall quality of life, therefore, is assuming greater importance in medical practice than it did in the past when physicians tended to rely only on technology, and were less concerned about you, the patient.

So it's important to help your doctor understand you. Your physician wants to know how you perform your daily activities, your overall feelings of well-being and how your medication(s) affect your social functioning. Your doctor will also want to know about the severity of your seizures, your fear of having a seizure and the loss of control it might entail, any social limitations you experience as well as the stigma of suffering from epilepsy in the first place, impotence, and lastly, any driving restrictions you might be forced to make.

In addition, if you feel depressed often, aren't as alert as you once were, suffer from sleep disorders and have nightmares, are irritable and lack motivation and initiative, tell your doctor immediately. Or if your sense of self-confidence and self-esteem is diminished, or you feel fatigued and can't remember or concentrate as well as you did, again, tell your doctor. If your seizures, interactions with family members, friends and romantic relationships, or your medications and side effects are preventing you from enjoying your work or your social life, let your doctor know. When you identify your fears, discuss them and explore their origins, you and your doctor will come to a better understanding of how to improve your quality of life.

*For more information on health,
employment and social services, contact
the nearest epilepsy association.*



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