

# Emotional & Behavioral Health in Epilepsy



Founded in 1954, the Epilepsy Foundation of Minnesota (EFMN) is a non-profit organization that offers programs and services to educate, connect, and empower people affected by seizures.

Together we can...

**EDUCATE** the community about seizures to reduce the stigma surrounding epilepsy.

**CONNECT** people with epilepsy to others, and to resources.

**EMPOWER** people living with epilepsy to reach their full potential.

### **Our mission**

EFMN leads the fight to overcome the challenges of living with epilepsy and to accelerate therapies to stop seizures, find cures and save lives.

### **Our vision**

A world where people with seizures realize their full potential.



## RELATIONSHIP OF EPILEPSY TO DEPRESSIVE AND ANXIETY DISORDERS

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**People with epilepsy have a higher rate of depression and anxiety disorders than the general population.**

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Several factors may explain this increased prevalence. The cause of the person's epilepsy, such as a head injury, stroke, or central nervous system infection, can all contribute to depressive and anxiety disorders.

Often the same parts of the brain, such as the amygdala and hippocampus, that are involved in the generation of seizures are also involved in the development of anxiety and depressive disorders. Epilepsy can cause disruption in the chemical messengers (neurotransmitters) in the brain and can present many stressors such as the loss of driving, difficulty at work, and fear of having a seizure at an inopportune time or place. In children, seizures can impact school both academically and socially. These significant ongoing sources of stress can contribute to the development of anxiety and mood problems. The treatment of epilepsy can have a positive, neutral, or negative impact on mood and anxiety.

## EPILEPSY AND DEPRESSION

Depression is a medical illness that affects the body, mood, and thoughts. It promotes an unrealistic negative view of one's self and the world. Depression can decrease energy and rob the pleasure from usually enjoyable activities. There are several forms of depressive disorders. Major Depressive Disorder (also called Major Depression) and Dysthymia are the most common in the general population as well as people with epilepsy.

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**Approximately 33% of individuals with epilepsy suffer from depression symptoms. Among those with severe uncontrolled seizures, evaluated at specialty epilepsy centers, rates of depression symptoms may exceed 50%.**

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Depression in people living with epilepsy is common and an important issue for both children and adults. Symptoms of depression can be constant or change over time. They can vary from mild to severe and may have a great impact on daily activities and quality of life. Depressed persons may lose interest in hobbies, have changes in appetite, feel sad angry or scared, and have trouble sleeping. At its worst, depression may cause thoughts of suicide.



Many possible causes of depression in people living with epilepsy have been identified, and several factors that can contribute to depression in epilepsy have been studied. The location of seizures in the brain, frequency in which they occur, medications used to treat seizures, brain development, family history of depression, and difficulty adjusting to the epilepsy diagnosis can all contribute.

Signs of severe depression in children are not always obvious if they do not discuss it openly. Signs to watch for are a preoccupation with death, significant isolation from family or friends, statements about death or hopelessness, and any self-injurious behavior or disregard for their safety. If any of these signs are present, it's important that the child is evaluated immediately by a mental health professional.

### **Depression can be treated.**

Treating depression and epilepsy is similar to treatment for individuals without epilepsy. A combined treatment of both antidepressant medication and psychotherapy has been shown to be the most effective. In addition, reducing seizure frequency and minimizing the impact of anti-seizure medication side effects is very important.



## EPILEPSY AND ANXIETY

Anxiety disorders are medical illnesses that cause people to experience irrational fear and dread. Physical symptoms such as rapid heartbeat, stomach or chest pain, and shortness of breath may accompany anxiety. Anxiety disorders are different from the mild temporary anxiety that most people experience in a stressful situation. Anxiety disorders last at least six months and can get worse without treatment. Anxiety disorders often occur alongside other mental and physical illnesses, including epilepsy.

The types of anxiety disorders include generalized anxiety, panic, seasonal affective, obsessive compulsive, and post-traumatic stress disorder.

Sometimes feelings of anxiety or fear are part of a seizure and this needs to be distinguished from an anxiety disorder.

Anxiety is related to epilepsy in multiple ways, and can occur as a reaction to a diagnosis, symptoms of a seizure, and even as a side effect of taking anti-seizure medication. Feeling social isolation or rejection due to epilepsy may influence anxiety symptoms.

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**Most frequently, anxiety appears after the diagnosis of epilepsy or after the first seizure and can involve the fear of having another event.**

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### **Treatments for anxiety.**

The best way to address these problems includes psychotherapy, counseling, behavioral therapy, and in some cases, anti-anxiety medications.



## DO MOOD DISORDERS OCCUR IN CHILDREN WITH EPILEPSY?

Mood and anxiety disorders can occur in children and may affect schoolwork and social functioning. The causes are similar to those in adults.

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**Depression and anxiety are often overlooked in children with epilepsy because children may not show the same symptoms as adults.**

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Depression in children can be difficult to recognize because they may not present themselves with clear sadness or obvious mood changes. Sometimes children will appear more irritable, respond quickly in a negative way to small frustration, or isolate themselves. Their day-to-day behavior can even change with family and friends. They may eat a lot more or a lot less than normal.

Children may become more withdrawn or want to be by themselves more. They will also often experience other physical complaints more often like headaches or stomachaches and this may result in a desire to avoid school. Sometimes the first signs that they are struggling with depression can be seen in behavior at school with a decline in grades, changes in friendships, or becoming uninterested in activities they used to enjoy.

Children with anxiety can present themselves in a variety of different ways. Sometimes it will appear first as excessive irritability or even defiant behavior. At other times they will focus on a specific worry or struggle with separation from their parents. When children worry, they very often experience headaches, stomachaches, and lethargy.

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**Mood disorders occur in children at the same rates as adults with epilepsy.**

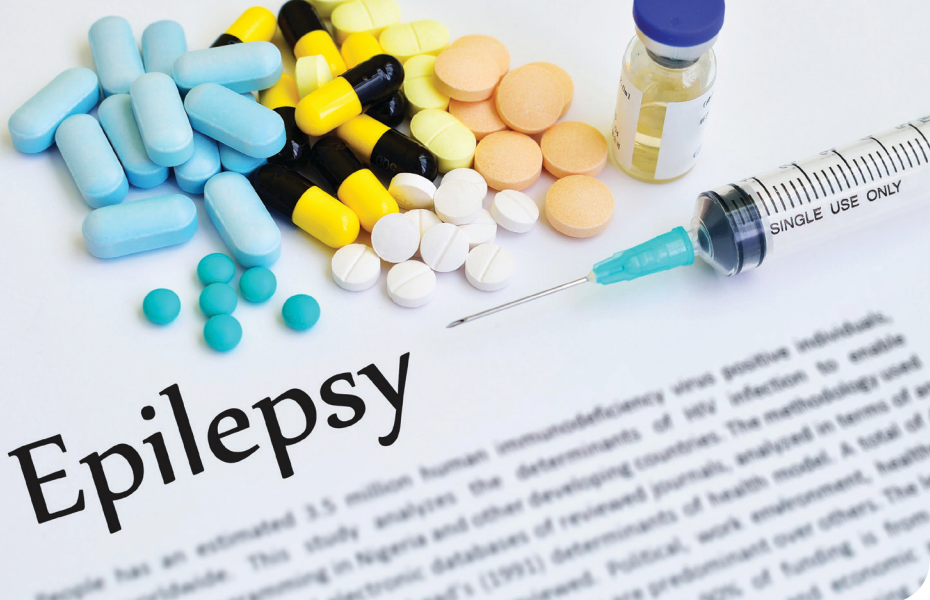
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Depression and anxiety can coexist in children at the same time. This can make it difficult for the parent or school teacher to assess what the child is primarily struggling with. Parents will often report that their child seems “different” or “not themselves” but it can be difficult to provide clear examples. When parents feel this way, it’s important for the child to be assessed by a mental health professional.

## **EPILEPSY AND BEHAVIORAL ISSUES**

Epilepsy influences the lives of people with seizures and their family as it restricts activities and may require specific behaviors. Taking medication, not driving, maintaining regular sleep cycles, limiting alcohol use, and making other lifestyle changes can lead to feeling a loss of independence.

- Factors associated with behavioral problems involve fear, stress, frustration, and embarrassment of having seizures
- Areas in the brain that control emotions and behavior may not work properly due to epilepsy
- Anti-seizure medications can change the balance of chemicals in the brain that may affect a person’s behavior



## **EPILEPSY MEDICATION AND MOOD DISORDERS**

### **Anti-Epilepsy Drugs (AEDs).**

People may respond differently to the same medication.

A medication that is well tolerated by one person may present troubling side effects for another. All AEDs have the ability to trigger psychological symptoms in people.

Some AEDs act as mood stabilizers and can have a positive effect on mood. These include valproic acid, lamotrigine, carbamazepine, and oxcarbazepine.

A negative change in mood can follow the discontinuation of an AED that is a mood stabilizer. The person with epilepsy may not have been aware that the medication was treating mood issues as well as seizures. The appearance of mood symptoms when a person with epilepsy is switched to a new AED should not necessarily be attributed to the effect of the new AED as it may be due to stopping the old one.

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**Some AEDs can have negative effects on mood and contribute to feelings of depression, anxiety, irritability, and frustration.**

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An AED is more likely to cause depression in a person who has a prior history or family history of depression, anxiety, or alcoholism.

Sometimes a side effect may only be temporary, and the person should work closely with their doctor to determine when a possible side effect is enough to promote a change in medication. A person who is on an AED that is known to have negative effects on mood may find that he or she feels much better after a change in medication. You need to work closely with your doctor to be sure that you are on the best AEDs for you. One way to be of extra help is to provide your doctor with a seizure calendar on which you record when you start and stop or change dosage of AEDs, when you miss a dose, have a seizure, and notice changes in your mood.



## ANTI-SEIZURE MEDICATION GUIDE

GENERIC	BRAND NAME	COMMON USES	POSSIBLE SIDE EFFECTS (the majority of individuals do not experience side effects)
acetazolamide	Diamox® Sequels®	Various seizure types	Appetite loss, frequent urination, drowsiness, confusion, numbness of extremities, kidney stones
brivaracetam	Briviact®	Focal seizures	Dizziness, sleepiness, fatigue, mood changes
carbamazepine	Tegretol®, Carbatrol®, Tegretol® XR, Equetro®	Focal and generalized seizures	Dizziness, drowsiness, blurred or double vision, nausea, skin rashes, abnormal blood counts (rare)
clobazam	Onfi™	Various seizure types	Fatigue, lethargy, insomnia, unsteadiness, changes in behavior, changes in appetite
clonazepam	Klonopin®	Various seizure types	Drowsiness, sleepiness, fatigue, poor coordination, unsteadiness, behavior changes
clorazepate	Tranxene®	Various seizure types	Drowsiness, sleepiness, fatigue, poor coordination, unsteadiness, behavior changes
repository corticotropin injection	HP Acthar® Gel	Epileptic spasms	Insomnia, weight gain, irritability, fluid retention, increased appetite
diazepam	Diastat Acudial™, Valium®	Various seizure types (not for daily, long-term use, but to stop episodes of prolonged or cluster seizures)	Drowsiness, sleepiness, fatigue, poor coordination, unsteadiness, behavior changes
divalproex sodium	Depakote®, Depakote ER®, Depakote® sprinkles	Various seizure types	Upset stomach, altered bleeding time, liver toxicity, hair loss, weight gain, tremor
eslicarbazepine acetate	Aptiom®	Focal seizures	Dizziness, drowsiness, nausea, headache, double-vision, vomiting, fatigue, and loss of coordination, rash
ethosuximide	Zarontin®	Absence seizures	Appetite loss, nausea, drowsiness, headache, dizziness, fatigue, rash, abnormal blood counts (rare)
felbamate	Felbatol®	Various seizure types	Anorexia, vomiting, insomnia, nausea, headache, liver and blood toxicity
gabapentin	Neurontin®, Gralise™, Horizant®	Focal seizures	Sleepiness, dizziness, clumsiness, fatigue, twitching, fluid retention, weight gain
lacosamide	Vimpat®	Various seizure types	Dizziness, headache, nausea, vomiting, double vision, unsteadiness, fatigue, tremor
lamotrigine	Lamictal®, Lamictal®ODT™, Lamictal XR®	Various seizure types	Dizziness, headache, blurred vision, clumsiness, fatigue, tremor, nausea, skin rash
levetiracetam	Keppra®, Keppra XR®	Various seizure types	Behavior changes, irritability, fatigue, dizziness, headache

To download the full anti-seizure medication guide visit [efmn.org/resources](http://efmn.org/resources)

# HOW TO SEEK HELP FOR MOOD DISORDERS RELATED TO EPILEPSY

## Who Else Can Help?

If your doctor is comfortable treating mood disorders, they may prescribe counseling, psychotherapy, medication, or other treatments. If it's not clear exactly what type of mood disorder you have, or you need more specialized treatment, your doctor may refer you to a mental health specialist. These include psychiatrists, psychiatric nurses, psychologists, social workers, and counselors.

- All psychological and cognitive symptoms should be reported to your primary care provider and neurologist
- Specialists in neurology, psychiatry, and psychology, as a team, can provide trusted and comprehensive care
- In people living with epilepsy who have significant cognitive changes, memory rehabilitation can help
- Education and support can help people with seizures and their family learn about the disease, understand it, and cope with the diagnosis



## **EFMN PROGRAMS & SERVICES**

For additional support, get involved with EFMN programs and meet others affected by epilepsy. For information on all youth and adult programming visit [efmn.org](http://efmn.org).

### **Advocacy**

As part of our efforts to overcome the challenges of living with epilepsy and to accelerate therapies, we are committed to working with epilepsy advocates to create positive change so people with seizures reach their full potential.

### **Camps**

Camp Oz transforms the lives of youth with epilepsy by providing a safe week-long camping experience, with the security of 24/7 medical staff. Other day camps are also offered throughout the summer and across our service region.

### **Connect Groups**

Every month connect groups are held across Minnesota and eastern North Dakota so individuals impacted by epilepsy are able to meet and gain insights from others in similar situations.

### **Education & Trainings**

EFMN's education and training programs provide free and low-cost trainings to environments such as workplaces, daycare centers, and other community groups. The Seizure Smart Schools program specifically focuses on training and supporting Pre-K through 12th grade students and schools.

### **Information & Referral Services**

Offers help to individuals seeking information for specific challenges related to epilepsy such as medication, transportation, employment, etc.

### **Shining Stars**

EFMN's Shining Star program connects youth from across Minnesota and eastern North Dakota with other families living with epilepsy. It's a way for youth to meet others with seizures and try new activities while families are able to gain valuable resources related to living with epilepsy.

## **Additional Resources**

For information on seizure first aid, seizure types, treatment options, driving, SUDEP, safety tips, additional resources, and more, please visit the following:

- [efmn.org](http://efmn.org)
- [epilepsy.com](http://epilepsy.com)

## **24/7 Support**

Call 800.779.0777 or [info@efmn.org](mailto:info@efmn.org) during business hours or 800.332.1000 (en Español: 866.748.8008) after hours with any questions or concerns.