

# Living with Epilepsy and Aromatic Oils

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By Zsuzsana G. Davidson

I have lived with Epilepsy most of my life. My parents discovered I had petitmal (partial amnesia seizure) when I was four years old and when I was fifteen, I was told I had outgrown my condition. Sixteen years later, I endured my first amnesia seizure.

This was a complete surprise and a mystery to me. "Why?" I wondered. "After all this time, why did something that was long gone resurface again?" Immediately I embarked on a personal journey. I decided it would be best to turn my experience around and create a positive outcome, not only for myself but also for others who suffer from Epilepsy. Because of my fondness for the natural wonders of essential oils and appreciation for natural health, I decided to research more about Epilepsy and how Aromatherapy could assist my condition.

Being aware of how aroma can affect our mind, body and spirit, I realized not only does it affect our well being, it also has an amazing impact on our senses. It has long been known that certain aromas can leave their signatures in our brain and that our neurons recognize them.

The brain has trillions of neurons. A specific aroma can overpower the rest and with little effort excite the neural transmitters. And for those who have Epilepsy, this can be an unpleasant experience because the end result can be one of many types of seizures.

As part of my Aromatherapy training, I was assigned to prepare a case study. After learning more about my condition and Epilepsy, I decided to dedicate my case study to this medical condition. The more I found myself working with Epilepsy and essential oils, the more I became aware that there were other people dealing with

Epilepsy who could benefit from the aromatic world of Aromatherapy. I personally would like to encourage others to discover the beneficial use of hydrosols and essential oils and how they can add to their wellbeing on day-to-day basis.

In this article, I would like to discuss how to introduce the administration of aromatic oils and hydrosols into health care for the Epileptic. I will be covering the impact of chemical toxicity and how it can affect olfaction and the mind, along with my personal journey and positive treatment experience with essential oils and hydrosols.

In addition, for those who suffer from Epilepsy or any form of seizure, I would like to say that I am not advising anyone to discontinue their Epilepsy medication. However, I hope my article will be of interest to people suffering from this medical condition and a guide for those who might consider Aromatherapy as a lifestyle choice for treating Epilepsy naturally.

Before I begin, an understanding of **EPILEPSY** is in order.

- Understanding the Nature of Epilepsy
- Medical Classification of Seizures
- Aroma and Epilepsy (Olfaction & the Mind)
- Epilepsy Toxicity
- Aromatic Journey

## Understanding the Nature of Epilepsy

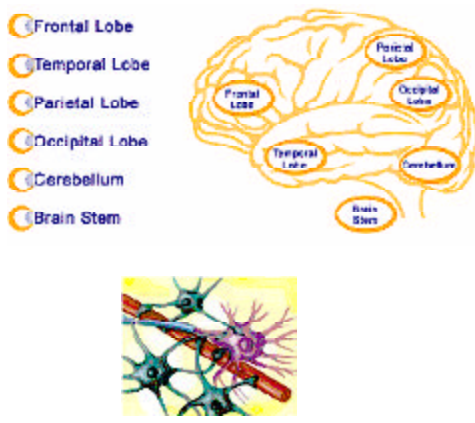
Whenever I embrace the word "Epilepsy," so many powerful forces come to mind, the most common being stress, restriction, fear and contradiction. Not only does this word create a powerful negativity for those who suffer Epilepsy, but it also projects a

negative response on psychological well-being.

I can not stress enough the fact that Epilepsy is not a form of mental illness, nor is it a disease. Epilepsy is a condition, an "imbalance" in the central nervous system that causes neurons to fire excitedly, resulting in seizures.

There are trillions of neurons in the brain and all these neurons work as communicators. Imagine the amazing effect of the powerful force of chemical messages being transmitted throughout our brains, every second. Should there be a disturbance in the normal electrical function of the brain, the result would not only be a communication breakdown but also muscle spasm, confusion, sudden falls, uncontrolled body movement or loss of consciousness and in some cases hysteria or shock! All these symptoms are identified with Epilepsy, an indication of a sudden "imbalance" in the brain. These are just some of the many experiences an Epilepsy sufferer may endure in their lifetime.

The diagram on the next page, showing the structures of the brain, will help in our understanding of the sub-divisions of the brain.



**~THE OVERVIEW~**

**Frontal lobe:** controls personality, emotions, & movement.  
**Temporal lobe:** controls memories, sexual feelings, hearing, smells & tastes  
**Parietal lobe:** receives and translate sensory information, such as touch, pain, & body temperature.  
**Occipital lobe:** co-ordinate visual activity

Neurons

### THE BRAIN ~ The Entrance Of Epilepsy

The three-dimensional brain is divided into three main divisions

- Cerebrum**
- Brainstem**
- Cerebellum**

The cerebrum is involved with intelligence and is divided into two hemispheres, the right and the left. These divisions are joined by the corpus callosum, a bundle of nerve fibers that allows information to be transferred between the two sides of the brain.

The brainstem regulates vital body functions that we're not consciously aware of, such as breathing and heartbeat. The brain stem controls the functions necessary for arousal to keep us awake and alert.

The cerebellum controls balance and muscular coordination, integrates information from the muscles, joints, and tendons to help the body produce accurate movements.

As we already know, the neurotransmitters play an important role in the function of the brain and the nervous system as a whole. Since arousal is involved in epileptic activity, the level of excitability of all or part of the nervous system rises powerfully

A seizure begins when groups of neurons within the brain become over-stimulated. An example would be "feeling stressed out in a situation that is not in your control" ~ divorce, death of a loved one, etc., ~ which can create over excitation of nerve cells in the brain which leads to a seizure.

A seizure can take over part or all of the brain! Each seizure is unique to each individual and a person having a seizure may experience different kinds of sensations. An example would be an "aura." Some people experience the aura, which is a warning or "funny-feeling" before a seizure occurs. There are different types of auras; for example, sudden nausea or stomach sensation, ringing in the ears, a strong odor, déjà vu, or a sudden feeling of fear.

When I think of seizures, I like to think of them as some kind of communication breakdown or missing link. It shows me that something has gone wrong within the brain. There is no one area of the brain that is influenced by the seizure. For example, if someone's seizure begins in the "temporal lobe" area of the brain, he or she might experience unusual smells. Remember, each person's seizure manifestation is unique and specific, just as each essential oil is unique. Today there are between 2.7 and 4 million people in the United States who have epilepsy, there

are several kinds of seizures and each person may experience more than one type.

### Medical Classification of Seizures

As regards types of seizure, the location of neurotransmitter activity creates two categories of Epilepsy ~ **generalized Epilepsy** and **partial Epilepsy**. Generalized epilepsy involves abnormal discharges in the entire brain and partial epilepsy results from an abnormal discharge in one part of the brain.

Partial seizures may be called simple partial seizures or complex partial seizures. The main difference between these is whether people remain fully aware or experience a change in consciousness during the episode.

An example would be if the seizure was experienced in the "Frontal lobe" of the brain. This could create brief changes in emotions and awareness, such as fear, disorientation, seeing people or objects that are not there, or reacting with shock and hysteria. This negative experience can sometimes cause the person having such a seizure to mistake this seizure activity for a sign of mental illness.

**Generalized seizures:** This type of seizure is like one big energy ball bursting with high electricity throughout the whole the brain at once. The neurons fire all over the brain excitedly and the affect is felt in the body. The end result is convulsions or massive muscle spasms and falling.

**Absence seizures:** Tonic-clonic seizures are considered part of the same family as generalized seizures.

**Partial seizures:** happen when the disturbance occurs in just one part of the brain, affecting whatever physical or mental activity that area controls. Sometimes the seizure activity starts in one area of the brain and then spreads. If the whole brain is affected, it causes a generalized convulsion, or fall. When this happens, doctors call it a partial seizure secondarily generalized.

**Myoclonic seizures:** are common in children and teenagers and consist of brief muscle jerks that last from a fraction of a second to a few seconds. It feels like a big sudden shaking, as if you are cold. Sometimes there is a loss of balance and falling, or there may also be an absence or tonic-clonic seizure.

### Aroma and Epilepsy (Olfaction & the Mind)

We have an amazing power when it comes to our sense of smell and this is a powerful ally. The effect of smell has a powerful influence on the central nervous system. Scientists and medical researchers have learned how odors can influence our feelings, evoke long-term memory, and stimulate and relax different parts of the brain centers to release neurotransmitters that affect us in many ways.

To explain how aromatic oils can affect us in this way we must identify the relationship between the sense smell and the brain.

Aromas are the effect of volatile molecules that move through the air, rushing into our nostrils as we inhale. The Aromatic substances have a direct effect on the smell receptors at the end of the olfactory nerve (the first cranial nerve) at the top of the nose. This nerve runs into the primitive part of the brain which receives smell.

As the molecules bypass the blood-brain barrier by going straight to the brain via the olfactory system, the essential oils influence the central nervous system, modifying the brain's reactions.

The balance of certain brain waves is very sensitive to emotional arousal and is interrupted by particular odors. There is good evidence to suggest that the ease with which seizure activity spreads to the rest of the brain is dependent on the level of arousal in the part of the brain which surrounds a discharging focus. There is, for most people with Epilepsy, an optimum level of arousal where seizure spread is least likely to occur.

Arousal can be modified and altered by life events, by stress and by efforts of will and concentration, or by learning to let go and relax. Since arousal is involved in the initiation and propagation of epileptic activity, psychological factors are very much involved in minimizing seizure spread or modifying the epileptic process and form the basis for self-control techniques.

Dr Tim Betts, Consultant in Neuropsychiatry at the University of Birmingham's Seizure Clinic, Queen Elizabeth Psychiatric Hospital, UK, has conducted studies using essential oils with Epileptic patients.

Dr. Betts teaches his patients to quickly decrease arousal by concentrating on something else and introduces self-hypnosis to promote relaxation. His patients are then offered a range of calming aromatic oils to smell and are invited to make their own choice of oil preference. Memory associations play a big part. For example, if one smells Lavender and a memory of Lavender were associated with a negative experience, the sensitivity of that memory and, thus, the oil would excite and encourage the onset of symptoms. However, if a person has a positive memory with this oil, they could apply the oil to relax the arousal before an oncoming seizure.

Aromatic substances are also fat soluble. When administered onto the skin via massage oil, the active constituents will enter the blood stream without first having to go via the liver (which would break them down.) It is possible that some of these active constituents can go straight to the brain. In Dr. Betts' research, almost all patients were able to reduce their seizure frequency following aroma conditioning (associating odor with relaxation).

### Epilepsy Toxicity

The Central Nervous System (CNS) is unique and sensitive to chemo types and toxicological agents of all types. Essential oils are complex aromatic medicine; each essential oil contains over 100 individual chemical constituents.

The central nervous system is sensitive to nerve toxins. A neurotoxin can cause harmful effects on the nervous tissue. In response to extreme toxicity, a seizure activity could possibly surface.

Neurotransmitters seem to play a vital role in whether or not a seizure occurs. A seizure begins when groups of neurons within the brain become overstimulated. This may occur in a fatal case of poisoning from ingestion, e.g. Camphor.

Ron Guba states that "**Most essential oil compounds have a "non-specific" toxic effect.** There are rare cases of toxic effects due to overly large doses of specific essential oils being self-prescribed, prescribed to children by parents or prescribed to clients by ill-informed therapists."

Ingestion of neurotoxic compounds can alter the neurotransmitter function and create a toxic effect. The consequences of this action can lead to a generalized seizure. If a person consumed extremely high dosages of essential oil, e.g., if they were to swallow 12g of camphor, this can lead to serious epileptic seizure activity.

A variety of aromatic plant species will produce different chemotypes. *Rosmarinus officinalis* has three different chemotypes (CT.) Aromatic compounds such as *Rosmarinus officinalis* CT Camphor have specific toxic effects in lower dosages. One cannot assume that if a particular constituent is found to be hazardous that it means that the essential oil is hazardous.

- Rosemary **CT1** is warming and energizing for memory and concentration problems.
- Rosemary **CT2** is useful for conditions such as headaches.
- Rosemary **CT3** is useful for depression and, generally, as a restorative of psychological balance.

Rosemary CT1 and CT3 should be used with care with epilepsy, due to the potentially neurotoxic quality of camphor.

Ketones are molecules with nonterminal carbonyl group. Ketones are not “**user friendly**” and to administer them you must do so with knowledge and care, as several are neurotoxic and should not be used with people who have Epilepsy. Keytone molecules are irritant to the central nervous system and their general therapeutic effects are:

- Strong mucolytics
- Promote skin regeneration
- Wound healing agent
- Internally: potentially neurotoxic and hepatotoxic.

### Examples of Ketones are:

**Camphor** (Cinnamomum camphora): Known to excite frequent on-going seizures  
**Hyssop** (Hyssopus officinalis): Reported to cause convulsions in children and seizures in adults

**Sage:** (Salvia officinalis): A neurotoxic and a potential for epileptic convulsions, it also contains the convulsant camphor.

**This means people who are vulnerable to seizures, such as people who suffer from Epilepsy or anyone with a family history of Epilepsy, should avoid the above oils.**

As we are aware, aromatic plant species will produce different chemo types, such as *Rosmarinus officinalis* (Rosemary). As previously discussed, ketones are among the most common toxic constituents. However to conclude that all essential oils containing ketones are toxic is simply false.

*E.g. “One essential oil with non-toxic ketone constituents is Jasmine (Jasminum grandiflorum)”. There are 100 individual chemical constituents in the oil. A typical chemical composition of jasmine is reported as follows*

**Monoterpenes:** farnesene (1.37-2.46%)

**Esters:** benzyl acetate (16-27.13%), benzyl benzoate (19%), methyl jasmonate, methyl linoleate (14%), phytol acetate (7.9-10.25%)

**Alcohols:** linalool (5.74-6.54%), benzalol, nerolidol (0.16-0.19%)

**Phenols:** eugenol (1.66-2.27%)

**Ketones:** jasmone (2.6-2.95%)

**Action on the body:** antispasmodic, antiseptic, antidepressant, calmate, sedative, aphrodisiac, cicatrisant, expectorant, galactagogue, and uterine tonic.

After a decade of research, Dr Tim Betts’ patients who were treated with essential oils remain well and most had no spontaneous seizures. The recommended essential oils that were successful in his treatment for Epilepsy are listed below:

### Essential oils that were helpful:

**Jasmine**

**Ylang Ylang**

**Lavender**

**Roman Chamomile**

**Bergamot**

### Aromatic Journey

During my own personal journey with incorporating essential oils safely and effectively to treat Epilepsy, I started to apply essential oils for personal use at home. When I began to explore Aromatherapy, I had little or no knowledge. I was a student and at the time had no experience or knowledge of the chemistry of essential oils. What had drawn me to Aromatherapy in the beginning was a love of plants and a fascination with how Aromatherapy could benefit the body, mind and as spirit as whole.

It was not until I endured my first amnesia seizure that I started to investigate the toxicity of essential oils and learn more about my health condition. I immediately began a serious in-depth Aromatherapy program and made a personal commitment to research the chemistry in the oils and the production of essential oils.

After much research I discovered chemical constituents in essential oils that may trigger seizures. These oils are irritants and affect the central nervous system in a big way. People who have Epilepsy are very receptive to smell. A strong smelling chemical can induce an attack e.g. “for me,

*when I walk inside a grocery store and enter the aisle where they sell detergents for clothing and kitchen cleaning products, just the smell alone makes me feel sick and light headed”. Care is needed in selecting essential oils, so please avoid high intensity oils that over stimulate the mind.*

I found there are a number of essential oils that can prevent seizures in some people with Epilepsy. The experience of these oils has left an amazing powerful message with me and has given me confidence and well being. I would like to share some of my aromatic applications with essential oils and how I have administered to my Epilepsy by living naturally with Aromatherapy.

I, like most people today, live a busy life. I have a baby to look after, a small business to manage, a home to maintain, and my hobbies to enjoy. It takes work to balance my lifestyle and sometimes it is stressful in and of itself, let alone living with Epilepsy. At the end of the day all I want to do is sit back and reflect. . The best way for me is to relax and enjoy an “aromatic bath.”

When I decide to make my bath salts, I like to combine fresh ingredients and pure therapeutic essential oils. Intuitively, I would then create a synergy blend of Geranium, Rose, Lavender and Neroli, along with a combination of therapeutic sea salts.

My intent for using these oils is not only that my body benefits from cleaning out all the toxins, but also the tension is released. Geranium is a “super” oil for balancing all the hormones and especially the nerve endings. I found this oil works remarkably good with my emotions, especially when I am dealing with shock. As for Lavender, this is my “balance” oil and I believe this oil has helped me tremendously with Epilepsy, calming my central nervous system and convulsions. The Rose is the “nurturer” for my heart. And Neroli works well in “grounding” me, allowing a sense of control and is especially calming to the mind.

As I sit back in the bath, absorb the aroma and allow the essential oils to do their thing, I would play a CD "Call of the Ocean, Australia." Then I can feel I am transported back home in Australia, living it up at the beach. The connection of the nature environment and the essential oils supports the "odor and relaxation" technique described by Dr Tim Betts in his research. I have applied this principle with my treatment.

All information experienced, seen, heard or felt is stored in the subconscious mind. To access your subconscious mind can be truly powerful. By reaching deeper levels of consciousness we are able to achieve what we want to achieve. In my case, this is to prevent a seizure. I believe the essential oils can reduce the seizures in my Epilepsy and with this powerful message in my subconscious, along with the oil to relax the arousal before an oncoming seizure, I achieve my objective.

When I learned I was pregnant for the first time, I was naturally excited and concerned how Epilepsy and pregnancy would combine. Sometimes during my pregnancy I needed something to help me sleep and calm my overactive mind. At those times, I would mist Roman Chamomile (*Anthemis nobilis*) and Lavender (*Lavandula angustifolia*) hydrosol onto my face. The hydrosols would calm me and leave a sedative affect and I would naturally fall asleep.

When it was time for our son to be born, I created a "Mommy & Baby" first aid kit. This kit would contain a synergy blend, massage oils, hydrosols and extra bottles of essential oils for emergencies. I would also bring my diffuser to disperse the aroma in the room; to relax my mind and to allow me the peace of mind that I would have no seizures.

The kit contained oils of Clary Sage (*Salvia sclarea*), Jasmine (*Jasminum grandiflorum*), Lavender (*Lavandula angustifolia*), and Rose (*Rosa damascena*) to assist with my contractions, to help my mind to focus and relax, and to prevent anxiety of seizure activity. With the help of a Doula, I was successful giving birth to a healthy baby boy and my obstetrician was very impressed with my aromatic baby kit. She informed me she had never seen such a comfortable labor or witnessed a mother-to-be laughing during contractions!

Precious moments like these, enhanced by aromatic scents, leave happy sparks in our memories and help release all concerns of living a healthy normal life. I hope my experience with aromatic oils will encourage other people who have Epilepsy. I hope to make a difference in the quality of life for people with Epilepsy and to show them that **Aromatherapy** is a "natural", safe and effective complementary therapy. Born in Perth, Western Australia to proud

### About Zsuzsana Davidson

European parents. As a child, Oma taught her an appreciation for the healing properties of the botanical kingdom and fostered her philosophical view for "simplicity" in health care. The vibrational patterns of botanical plants and their therapeutic actions in healing left a positive impression in her health and well being. Professionally, she is a fully qualified Holistic Aromatherapist from "The Institute of dynamic Aromatherapy" in America. She holds certificates in Aromatic Chemistry, Aromatic Reflexology, Holistic Dynamic Aromatherapy and she has completed her one-year IDA Masters Apprenticeship Program. Today she is committed to teaching and is an instructor for "The Northwest College of Herbal & Aromatic Studies".

Zsuzsana is the founder of Zobia Aromatherapy™ located in Columbia, MD. Zobia Aromatherapy provides Aromatic Reflexology sessions as well as Aromatherapy Consultations. It is also the U.S. distributor for Essential Therapeutics™, a complete line of "therapeutic quality" essential oils and products focused toward the practitioner. Zsuzsana is the NAHA Regional Director for Maryland and her vision is to promote a natural harmonizing future for aromatherapy.

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