# Epilepsy News

Serving the people of Newfoundland and Labrador for 25 years!

The Quarterly Newsletter of Epilepsy Newfoundland and Labrador

Spring 2008

# Success in Spite of Seizures

Being a parent of a child with epilepsy can be an overwhelming role. Not only do you have all of the medical issues to face, there are also the social implications as well. Sometimes, despite good intentions, parents can actually make things more difficult for kids.

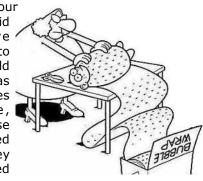
- Parents of children with epilepsy often experience frustration and hopelessness. It is important to address these issues so they don't transfer feelings to the child. Support groups and counselling can help with these feelings and restoring daily routines.
- Overprotective behaviour has been associated with slower social maturation in children.
- → Parents often give fewer responsibilities to kids with epilepsy than they do on other children.

#### SO WHAT CAN YOU DO?

- ✓ Focus on your child's abilities, not their limitations. This will increase your child's self-esteem, self- confidence, and autonomy.
- Offer your child information and explanations about their disorder. In doing so, try to acknowledge your child's feelings and comfort their fears. Fears of dying, losing control, being teased, etc. are common and should be addressed. Sometimes parents feel the need to hold back information for the protection of their child, but this can cause some difficulty in accepting the disorder on the part of the child. Further, children will often fill in the blanks with misinformation, which will leave them feeling more afraid and confused. Being forthright and open is more effective. For example, telling a child that their medication is a vitamin or candy may do more to prevent acceptance of the disorder than to promote it.

✓ Promote independence

by trying your best to avoid overprotective behaviour. Try to let your child partake in as many activities as possible, including those they participated in before they were diagnosed with epilepsy.



Overprotective parenting can lead to dependency, hypochondria, low self-esteem, and immaturity. It is best for parents to be slightly more cautious, but not to let fear of further seizures run their lives.

- ✓ Give your child responsibilities appropriate for his or her age.
- ✓ Allow your child to be responsible for their medication (with supervision at younger ages). Epilepsy is so unpredictable that often people feel like it controls them. Allowing our child to be in charge of his or her medication will promote feelings of control over the unpredictability of their disorder, as well as mastery of their treatment.
- ✓ Don't make your child keep their disorder secret. Secrets will make your child feel ashamed of their disorder. Whereas, openness about epilepsy encourages acceptance of it.
- ✓ Encourage your child to ask questions.
- ✓ Try to treat your child like you did before they were diagnosed with epilepsy.

*Epilepsy News* is printed quarterly by:

# Epilepsy Newfoundland & Labrador

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## On My Mind

Life never stops changing. Just when I had thought I was getting fairly settled and comfy in my life, it up-ends me once again. Sometimes, it's pretty easy to feel overwhelmed and frustrated by it all. But I think it's all a matter of perspective really. If we can view all of the things that happen to us as opportunities as opposed to problems and difficulties.

I stumbled upon this little clip a while back, I think it makes a lot of sense. And when things get difficult, I try to read it often, and remind myself that as long as I am doing all I can, then I am doing okay. And as long as I keep growing and learning, I will be fine.

I hope you enjoy it too.

You will learn lessons. You are enrolled in a full-time, informal school called Life. Each day, you will be presented with opportunities to learn what you need to know. The lessons presented are often completely different from those you think you need.

There are no mistakes, only lessons. Growth is a process of trial, error and experimentation. You can learn as much from failure as you can from success. Maybe more.

A lesson is repeated until it is learned. A lesson will be presented to you in various forms until you have learned it. When you have learned it (as evidenced by a change in your attitude and ultimately your behavior) then you can go on to the next lesson.

**Learning lessons does not end.** There is no stage of life that does not contain some lessons. As long as you live there will be something more to learn.

Pamela Anstey
Information Officer

## Disclaimer

The materials contained in the Epilepsy Newfoundland and Labrador newsletter are to provide general information about epilepsy to the public. The information presented is not intended as medical or legal advice. Epilepsy Newfoundland and Labrador, its employees, board members, medical advisors, volunteers, agents and sponsors do not assume responsibility for inaccuracies or omissions or for the consequences from the use of the information obtained in this newsletter. Epilepsy Newfoundland and Labrador is not liable for any outcome or damages resulting from information in either a direct or indirect form. We recognize that each individual's experience of epilepsy is different. Consult your physician and/or neurologist with any questions you have.

People with epilepsy should never discontinue anti-epileptic medications or make changes in activities unless specifically advised to do so by an attending physician.

## Epilepsy Awareness Month - March 2007 Recap

arch was Epilepsy Awareness Month - a special time of the year across Canada when associations work extra hard to get the word out about epilepsy and seizure awareness. Here in Newfoundland and Labrador, we were no exception.

#### **Medical Information Program**

Throughout the month:

- ✓ Every pharmacy received information to be displayed and distributed to their customers.
- Every medical clinic in the Metro area received resources for their waiting rooms, and to hand out to patients. I'm hoping we can soon do the same for all the clinics in the province.

#### **Brain Day Celebrations**

For the past five years we have held our brain Day Party, a fun event where students learn about how their brain works and receive information on seizures and first aid through interactive activities. This year we again sent the invitation out to the schools in the area to see if they would like to have a Brain Day party with their students. Did they ever!

With the help of a handful of volunteers, we took Brain Day to many different schools, did dozens of presentations and spoke to hundreds of students.

#### **Brainstorm**

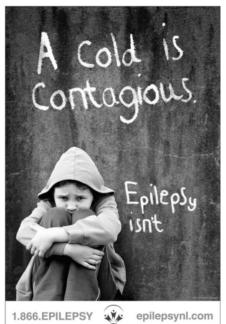
March was so full this year that we couldn't squeeze everything into one month. So we started some things in February instead! Brainstorm is a Q & A competition that tests high school students' knowledge of the brain and nervous system. Brainstorm is an international event and the winner of the provincial competition, also won the opportunity to represent this province at the Canadian finals in Quebec during March. There were over 40 students from schools around the province competing. ENL was invited to be a guest quiz-person and to give a brief familiarization with our organization and it's activities. Some excellent prizes were given and everyone went home with not only a prize, but a better understanding of the brain as well.

#### **Graphic Design Contest**

Each year during March ENL advertises like crazy, to

make sure people better understand epilepsy and seizures.

Again this year we challenged the students in the Grapic Desian program at the College of the North Atlantic to develop a bus shelter ad that would convey the type of message we want people to It was an know. excellent opportunity for the students to work on an actual business project, and a chance for us to tap into some amazing talent.



This year we chose two winners - Phil Simms and John Squires. The ads, one of which you see here, are now on display at two very prominent shelters here in the city.

# Provincial Question and Answer Forum and Teleconference

Our signature event of Epilepsy Awareness month has always been the Question and Answer forum. This year, we were pleased to have attendees both in person, and connecting from around the province via teleconference.

We were also honoured once again to be joined by both Dr. Ogunyemi, and Dr. David Buckley, two of the provinces foremost neurologists.

Questions were varied and the forum was both educational and inspirational. We offer our very special thanks to both Dr. Ogunyemi and Dr. Buckley for providing their knowledge and guidance.

# What a Long Way We've Come!

here are many of us who work or live with epilepsy every day. Sometimes it can be difficult to see past the continuing challenges - the seizures, the side effects of the medication, and the discriminatory attitudes of others. It can seem as though we haven't come very far in terms of understanding.

Or have we? People with epilepsy over the centuries have had to endure some of the most absurd and horrific beliefs and treatments imaginable; treatments that today seem often incomprehensible. At the time however, they were common practice. My, oh my, what a long way we have come.

- ✓ A folk remedy from Germany that was considered effective for treating the falling sickness throughout many eras: "Scrape a little matter from a human scull and administer this over a period of several months. If the patient is a man, the scull must be that of a woman, and vice versa"
- ✓ A Babylonian tablet dating from between 1067 and 1046 BC revealed that at that time, it was believed that epilepsy was caused by malignant spirits and that nocturnal seizures, in particular, were caused by ghosts. Exorcism, ointments, amulets, and enemas were used as treatments.
- ✓ Indian cures of the past focused on purging uncleanliness through means such as enemas and induced "vomitation". Dietary cures included concoctions such as sour milk curds and various animal parts, including excrement.
- ✓ From the Greek island of Kos in the 400s BC, sufferers were told to avoid wearing black, abstain from baths, and avoid the use of woolen blankets made from the fleece of goats.
- ✓ In the United States during the 1920s, half the states in the U.S. had laws that mandated the sterilization of patients with epilepsy, grouping them in with "harmful groups of society."

- ✓ In Roman times it was believed that seizures could be brought on by a disturbance of the brain through unfavourable climactic conditions or toxins. The solution? Apply a tourniquet on the shaking body part to stop the toxins from reaching the brain. In the extreme, amputate. The Roman world also holds the dubious distinction of beginning the trend of castration of male sufferers: a practice that continued through to the late nineteenth century. Other cures included drinking the blood of stags or slain gladiators.
- ✓ In 1685, King Charles II of England suffered from an illness that caused him to have convulsions. The treatments he underwent included: "letting" of one pint of blood; an enema made of a concoction of seeds, spices and minerals; & having his head shaved and blistered. Needless to say, the King died.
- ✓ In the early 1800s, Sir Charles Locock credited crowded teeth with causing seizures. As a result, removing the teeth was a therapy of the time, along with psychiatric institutionalization and isolation of "contagious" patients with epilepsy.



I Tried to Teach My Child with Books; He Gave Me Only Puzzled Looks.

I Tried to Teach My Child with Words; They Passed Him by Often Unheard.

Despairingly, I Turned Aside; "How Shall I Teach this Child," I Cried?

Into My Hand He Put the Key, "Come," He Said, "And Play with Me."

# **Navigating The Ketogenic Diet**

#### What is the Ketogenic Diet?

The ketogenic diet is a rigid, strictly calculated, therapeutic diet used in the treatment of hard-to-control epilepsy in children. This diet is very high in fats and very low in protein and carbohydrates.

#### Who can use the Ketogenic Diet

The ketogenic diet is used to treat intractable epilepsy in

children. It may be prescribed when seizures are out of control, and when the side effects of anticonvulsant drugs, and/or surgery are considered unacceptable.

It may effectively treat some cases of childhood myoclonic, absence, and atonic seizures as well as tonic-clonic seizures, multi-focal seizures, and Lennox-Gastaut Syndrome. It has also been used to treat structural brain



disorders such as microcephaly, hypoxic brain damage, prior strokes, and developmental abnormalities.

The ketogenic diet is usually directed at children 1 to 8 years of age. Children below the age of 1 are not usually put on the diet as they may experience side effects such as hypoglycemia. The diet has had some success with select older children and adolescents too. It is prescribed only when both the child and the family are highly motivated. The diet may be prescribed for 2 to 3 years.

It is said that adults may have problems maintaining essential nutrients and as such may not benefit from the diet, but in-depth studies are rare and inconclusive. Many adults would not want to eat such a diet. And find it unpalatable, and very difficult to stick to.

#### How does the Ketogenic Diet work?

When starting the diet, a child will fast for 2 to 3 days. By doing this, all of the glucose (sugar) in the blood will be used up for energy. The ketogenic diet works by tricking the body into reacting as if it is starving or fasting: it causes the body to burn fats rather than carbohydrates. When fats are burned in the absence of sugars, they do not burn completely. Instead, a residue of ketone bodies remains: the body is in a state of ketosis. Despite the use of this diet in the treatment of seizure disorder since the 1920s and before, its exact mechanism is unknown. Research was largely discontinued when newer anti-epileptic drugs became available in the 1940s.

#### Safety and Side Effects

The ketogenic diet is both safe and effective, with rare side effects only when it is not strictly followed. There is documentation of rare kidney stones formation, lowered immune functions, low blood sugar, and implication of increased serum lipid profile which requires close monitoring.

During the initial fast, your child's blood sugar level should be checked every four to six hours. The level often falls, which may lead to hypoglycemia.

The ketogenic diet must be supervised by qualified specialists.

#### Is the Ketogenic Diet nutritionally complete?

Dietary supplements, such as multivitamins and calcium, must be taken.

These must be given in sugar-free form.

#### Living with the Ketogenic Diet

After consultation, if you opt for the diet, you may be asked to participate in a trial period.

Also, there may be several days of training time when you will be given a diet designed specifically for your child. Everything your child consumes must be weighed and accounted for in the diet.

Your child may feel hungry during the first week or two. However, ketosis decreases the appetite.

Some children on the ketogenic diet will feel very thirsty. Some parents give their children a regular dose of water or caffeine-free diet soda every 1 or 2 hours during the day.

Always consult your child's paediatrician or neurologist about the specifics of the ketogenic diet in your case.

#### How successful is the Ketogenic Diet?

When rigidly adhered to, the ketogenic diet may successfully control epilepsy in 30-50% of children with intractable seizures. Many others will experience a marked decrease in seizure frequency. Many will be able to return to a normal diet within 2 to 3 years, free of seizures or medication.

Most people investigate this diet as a last resort. The diet can be unpalatable and demands a great commitment from the entire family for a considerable period of time. Most people who make it past the first month will stick with the diet until they can return to a normal diet.

## **Epilepsy Syndromes**

hen a person's seizure disorder has a characteristic group of features, it is called a syndrome. Syndromes have a cluster of symptoms or signs that define them.

Over the next few editions of *Epilepsy News* we will give you an overview of some of the most prevalent epilepsy syndromes. For more detailed information on any of the epilepsy syndromes listed here, please contact Epilepsy Newfoundland and Labrador.

## Landau Kleffner Syndrome

#### **Overview**

 Also known as 'Acquired Epileptic Aphasia in Childhood', Landau Kleffner Syndrome is a relatively rare disorder which develops in children usually between the ages of 3 to 7 years old while a child is developing their language recognition and abilities. Twice as many boys are affected than girls.

#### **Symptoms**

- The first indication of Landau Kleffner Syndrome is the developed inability in children to speak. The child will show difficulty in understanding what is said to them, as well as the ability to put their own thoughts into words.
- Seizures will usually follow within a few weeks of the development of the language problems and can include both tonic-clonic and complex partial seizures.
- Rarely, a severe behavioural disorder with autistic and psychotic features may develop.

#### **Treatment**

• Landau Kleffner responds well to anti-epileptic drugs and the long term outlook for this disorder is a positive one. As well, a careful assessment of the child's educational strengths and needs is very important so that appropriate educational supports can be put in place during this time. For the vast majority, the seizures will usually disappear by the time they reach their mid-teens. Language skills as well usually improve over time but is less predictable and may need additional support.

### Asked & Answered

I had a seizure last week, and the doctor is trying to figure out if I have epilepsy or not. I'm not sure how this works. What test will he do to figure out if I really do have epilepsy?

There is no diagnostic test for a seizure or for epilepsy. The doctor's diagnosis is based on a thorough investigation of a first seizure (including any witness observations), a physical examination, family history, and supportive tests such as the EEG, CT Scan, and MRI.

The electroencephalograph or EEG directly measures electrical activity in the brain--brain waves--through the skin. In this harmless test, small sensors called electrodes are attached to the patient's scalp. The electrical activity picked up by each sensor is graphed onto an EEG printout. Tests done on people with epilepsy commonly show uneven activity or large changes in the voltage of brain waves (spikes). Different patterns of activity from different spots on the scalp point to different kinds of epilepsy.

The EEG is not foolproof. It can only measure abnormal electrical activity that occurs during the test period. Sometimes, the brain of the person with epilepsy functions perfectly normally during the test. Or the electric patterns that the device is looking for happen too deep in the brain to be picked up by the scalp electrodes of the EEG. When the EEG doesn't find anything unusual, it is common for the patient to get a continuous, 24-hour EEG monitoring in hospital. About 20% of people with epilepsy have normal EEGs, and a small percentage who don't have epilepsy have abnormal ones!

Other tests can be used as well when a cause is unknown. They include:

- CAT or CT scan (computerized axial tomography) uses computer processing and x-rays to make a computer image of the brain in three dimensions.
- The Magnetic Resonance Imager (MRI) can better define the structures of the brain in three dimensions by measuring the strength of magnetic fields in the brain.
- Functional MRI (fMRI) can look at discrete areas of brain activation.
- PET (Positron emission tomography) and SPECT scanning detect cerebral blood flow and metabolism.

## Off The News Wire

#### Diabetes Drug May Hold Potential As Treatment For Epilepsy

Metformine, a widely used diabetic drug, might also be an effective and safe therapy for epilepsy, researchers report. This new approach may be especially helpful for the subset of patients who have recurrent seizures despite therapy with the best available drugs.

The basis for metformine's effect is similar to a ketogenic diet, which is an attempt to minimize dietary starch and sugar. Epilepsy patients have been using this severe dietary approach for centuries, which led Dr. Avtar Roopra and colleagues to wonder if drugs could tap into metabolic pathways and produce similar results.

The researchers identified a small molecule in neurons that senses how much energy is available on hand. Glucose normally turns on this sensor, but so does Metformine, a drug used to control blood sugar. By administering the proper dose, they could suppress over-active nerve cells by removing their ability to turn sugar into excess energy.

Roopra and colleagues now hope to apply their preliminary results to a mouse model of epilepsy.

ASBMB, April 2008

#### Epilepsy Drug Linked to Bone Loss

The epilepsy drug Dilantin may put young women who take it for a year or more at higher risk for osteoporosis, researchers report.

The bone loss was actually eight times higher than that experienced by premenopausal women who did not take any drugs for epilepsy.

Women who need to take epilepsy drugs can either switch to a medication other than Dilantin, or they can up their intake of calcium. But calcium supplementation may not be enough to counteract the bone-depleting effect of Dilantin.

"We're just beginning to recognize that we need to look at the long-term health care issues of anti-convulsants,"

April 28 (HealthDay News)

#### Elderly Epilepsy Patients Have Higher Risk Of Cognitive Decline

An article published in the May 2008 issue of Epilepsia calls attention to the lack of knowledge regarding cognitive aging in chronic epilepsy patients. For persons with chronic epilepsy, little is known about the impact of aging on the course of cognitive and brain health, the prevalence of clinical disorders of aging (mild cognitive impairment, dementia), or the disease burdens and risk factors associated with abnormal cognitive and brain aging. The study presents data that suggest several reasons for concern.

Numerous cognitive deficits, neuroimaging abnormalities and psychiatric comorbidities have been well characterized in younger persons with chronic epilepsy, with evidence of progression of these problems in some patients by middle age. People with chronic epilepsy have been exposed to several influences that may place them at increased risk for accelerated cognitive and brain aging, including: treatment with medications now known to adversely affect cholesterol, folate and glucose metabolism; increased rates of vascular disease risk factors; altered lifestyles that include decreased social interaction and physical inactivity; and elevated inflammatory markers.

"The cognitive status of persons who have lived with epilepsy for a long time is unclear," says Bruce P. Hermann, lead author of the study. "Because persons with epilepsy carry other risk factors for abnormal cognitive and brain aging, there should be great concern regarding the lack of knowledge about their cognitive and brain status in older years."

Previous research has identified numerous risk factors for abnormal cognitive aging and dementia in the general population, including vascular, inflammatory and lifestyle factors. Many of these are overrepresented in epilepsy, but not examined in relationship to cognitive and brain aging in epilepsy. This oversight is important given the epidemiological evidence that risk exposure and cognitive abnormalities in midlife represent critical predictors of eventual abnormal cognitive and brain aging.

"If these factors exert comparable effects in people with chronic epilepsy, the management of epilepsy must be expanded to aggressively address critical risk factors in order to protect and promote cognitive and brain health," says Hermann.

Study is from Epilepsia, April 2008

## **Announcements and Notices**

## **Membership Renewals**

May 31st is the end of our membership year, and it's renewal time again. Our members are very important to us and we are dedicated to helping them in any way we can. We are now inviting you to renew your membership for 2008-2009. Renewals are very important because it lets us know that you are still interested in receiving

information such as this newsletter!

Our membership year runs from June 1st to May 31st and registration costs only \$5.00 for the whole year. If you would like to renew but find that the membership fee would be difficult, let us know and we should be able to waive the fee.

Your annual membership with ENL offers great benefits, services and information such as:

- Access to support programs and advocacy services - We will fight for you.
- Invitations to special events, teleconferences, support groups and info sessions
- Subscription to **Epilepsy News**, ENL's own quarterly newsletter
- Voting privileges at the Annual General Meeting
- Medication Alerts Notification of critical changes in seizure medications or treatments
- Participation in our Connections program.
- \$1,000 post secondary educational scholarships open only to ENL members.

You can find a membership form on the back page of this newsletter, or if you are a current member who has not yet renewed for this year, a renewal form is attached. Membership renewal forms can be sent via mail or fax to:

**Epilepsy Newfoundland and Labrador** 26 O'Leary Avenue, St. John's, NL A1B 2C7 Fax: (709) 729-0999 - info@epilepsynl.com

Look at a day when you are supremely satisfied at the end. It's not a day when you lounge around doing nothing; it's when you've had everything to do, and you've done it. ~Margaret Thatcher

## March Door to Door Campaign

KNOCK ..

Another successful March Door to Door Campaign has just passed us by. It could never have been the success it was without the help of our dedicated team of volunteers from right across the entire province.

our kits back so far, but there are a still a number outstanding. If you have one of the outstanding kits, please get it back to us as soon as you can so we can get

We have received quite a number of our project completed for another year.

We would like to take this opportunity to thank every canvasser and zone captain who so willingly gave of their time and efforts to make this campaign a success, as well as a thank you to everyone who donated even a little. Your efforts will go a long way towards the promotion of epilepsy support and awareness in Newfoundland and Labrador.

## **Volunteers Needed**

We are hoping to be able to put information and posters in various medical clinics, waiting rooms, hospitals, Health and Community Services offices and other public areas throughout the province. But as you can imagine, mailing a box of resources to each of these office in every community would be

enormous a n expense in postage.

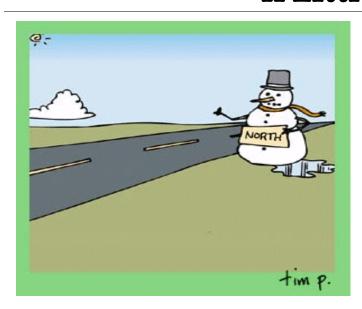
We are looking for volunteers from across the province who would be willing t o distribute posters Time information



throughout your hometown. This would save us lots in postage by only having to mail one box per community and keep donations going to programs and services instead of Canada Post.

If you can help, please call Pam at the ENL office at 1-866-374-5377, or email info@epilepsynl.com.

## A Little Time Out



## A Puzzling Poem

I rise, I'm beaten down,
And then I rise again.
I'm sometimes brown and sometimes white.
(White goes against the grain.)

Though I am often needed, I'm taken for granted too. But I may be the "Toast of the Town", Before the day is through.

I'm often cut in pieces, Sometimes thin and sometimes thick. You find that quite convenient When you want something quick.

I'm crusty on the outside, But, inside you will know, I'm soft and moist and chewy You'll feel good as I go.

I'm rarely used alone and bare.
Most times I'm paired with others.
Try to guess just what I am,
As you consume my brothers.

#### **Scrambled Brains**

Word search puzzles can be a lot of fun. The letters look all mixed up, but hidden among them are many of the generic and brand name drugs we use to control seizures each day. See how many you can find and circle. The words can read across, up, down, or diagonally.

Р	L	W	Е	Е	Τ	Н	0	S	U	Х	1	М	1	D	Ε	R	Т	Υ	U
R	Н	1	М	Х	Α	М	А	Р	0	Т	D	Т	1	Е	L	Р	0	1	С
Т	А	Е	R	Е	L	S	Н	Ν	1	М	D	С	W	В	Ε	S	G	Α	Α
М	R	D	Ν	Т	S	D	С	R	Е	Т	Α	1	Α	L	Х	N	G	L	R
	Е	1	Е	0	0	1	N	S	Т	С	М	Т	L	Z	R	Α	٧	0	В
D	F	Α	Α	М	В	٧	А	L	1	U	М	0	W	Α	В	D	Е	М	Α
0	Н	М	Ν	Α	R	Α	1	0	М	Α	Р	Ε	Ζ	Α	N	0	L	С	М
N	С	0	0	Т	Ε	L	R	R	٧	Н	G	Χ	Р	1	L	Т	Ε	Ζ	А
Е	R	Χ	Ρ	Е	С	Р	1	В	Е	N	0	Е	Т	F	L	Т	1	Υ	Z
D	Е	Т	М	С	L	R	U	K	1	М	N	N	Х	S	Α	J	W	N	Е
Е	Р	-	٧	Α	L	0	Р	В	Α	Т	0	М	D	Z	М	0	Т	N	Р
W	Х	Е	٧	R	М	Ε	R	1	1	R	Α	G	0	Υ	0	N	Е	Е	
Т	D	Т	K	1	Α	Х	D	N	А	Р	Υ	L	М	0	Т	L	G	U	N
А	S	0	Υ	Т	Н	S	Е	Ζ	Е	٧	Α	R	0	L	R	Χ	R	R	Е
Т	Т	K	Α	Е	Н	0	Р	Ζ	R	М	Υ	S	0	L	1	N	Ε	0	Υ
S	R	Α	Χ	٧	U	D	А	М	1	С	Α	Т	R	Н	G	А	Т	N	0
А	R	Р	Ρ	Е	K	1	K	D	Е	Т	Α	М	А	R	1	Р	0	Т	L
	W	Е	L	L	D	U	Е	Χ	G	D	М	А	R	Е	N	К	L	1	U
D	Υ	D	Ξ	N	$\supset$	М	N	Ζ	N	1	0	Т	Υ	Ν	Ε	Н	Ρ	N	S
Р	R	Ī	Н	D	Е	Ρ	Е	L	А	М	L	А	М	1	С	Т	Α	L	Χ

## Word search puzzle words to find:

Acetazolamide
Carbamazepine
Clonazepam
Depakene
Depakote
Diamox
Diastat
Diazepam
Dilantin
Divalproex Sodium
Epival

Ethosuximide Gabapentin Keppra

Lamictal

Lamotrigine
Levetiracetam
Mysoline
Neurontin
Phenobarbital
Phenytoin
Primidone
Rivotril
Tegretol
Topamax
Topiramate
Valium
Valproic Acid
Zarontin

## **Bits and Pieces**



# The Brain Tumor Foundation of Canada

**Brain Tumour Foundation of Canada** is a national, not-for-profit organization dedicated to reaching every person in Canada affected by a brain tumour with support, education and information, and to funding brain tumour research.

Every year, we help thousands of Canadians affected by brain tumours find emotional support and comfort while gaining a better understanding and knowledge of their disease.

#### **Our Programs & Services**

**Patient Resource Handbook** - A comprehensive, easy-to-read guide to brain tumours. Available in Adult and Pediatric versions, in English and French.

**1-800-265-5106** - This toll-free, Canada-wide support and information line is answered by our friendly, knowledgeable staff Monday to Friday.

**Support Groups** - Brain tumour patients, families and survivors meet monthly across the country to share concerns, fears, hopes and dreams in a safe, supportive environment. Call us today or check the web site for a Support Group near you.

**Online Chat & Message Board** - Join our chat room, message board and moderated chats with medical and other professionals to share experiences and gain information with patients, survivors, families and friends. It's free and easy to do, check out our website for details.

**BrainStorm Newsletter** - Get inspired by stories of hope and triumph. Get reliable information about research, treatment and patient support. Get connected with our donors who support us.

**www.braintumour.ca** - Find information and support right here, as well as to find out about events and volunteering, or to browse our message board.

A Puzzling Poem - I am a loaf of bread.

What are the three words guaranteed to humiliate men everywhere?

'Hold my purse.'

# I Would Like To Help in the Fight Against Epilepsy

<ul> <li>□ I am enclosing a donation of \$</li></ul>										
Name:	Email:									
Address:		Phone:								
If you would prefer to use your credit card, please complete the following:										
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Signature:	Date:									

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