

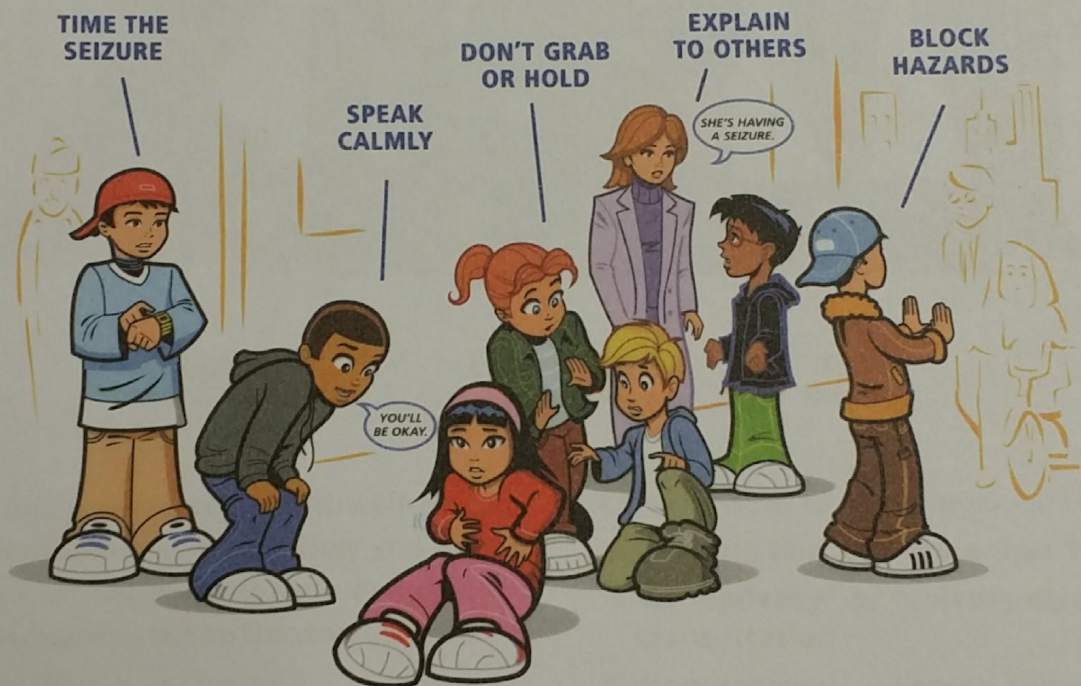
# First Aid for Seizures

(Complex partial, psychomotor, temporal lobe)

## 1. Recognize common symptoms

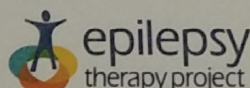
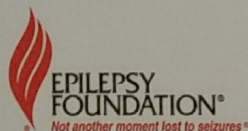


## 2. Follow first-aid steps



People who've had this type of seizure should be fully conscious and aware before being left on their own. Make sure they know the date, where they are, and where

they're going next. Confusion may last longer than the seizure itself and may be hazardous. If full awareness does not return, call for medical assistance.



STRONGER TOGETHER

1-800-332-1000 • [www.epilepsyfoundation.org](http://www.epilepsyfoundation.org)

EFA 341  
Rev 02/2013

This publication was made possible with funding from the Centers for Disease Control and Prevention (CDC) under cooperative agreement number 1U58DP003832-02. Its content are solely the responsibility of the authors and do not necessarily represent the official views of the CDC.

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NATIONAL CENTER FOR PROJECT ACCESS



# First Aid for Seizures

(Convulsive, generalized tonic-clonic, grand mal)

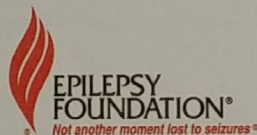


Most seizures in people with epilepsy are not medical emergencies. They end after a minute or two without harm and usually do not require a trip to the emergency room.

But sometimes there are good reasons to call for emergency help. A seizure in someone who does not have epilepsy could be a sign of a serious illness.

Other reasons to call an ambulance include:

- A seizure that lasts more than 5 minutes
- No "epilepsy" or "seizure disorder" identification
- Slow recovery, a second seizure, or difficulty breathing afterwards
- Pregnancy or other medical diagnosis
- Any signs of injury or sickness



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# Seizure Recognition and First Aid

Seizure Type	What it Looks Like	What it is Not	What to Do
<b>Generalized Tonic-Clonic</b> (Also called Grand Mal)	Sudden cry, fall, rigidity, followed by muscle jerks, shallow breathing or temporarily suspended breathing, bluish skin, possible loss of bladder or bowel control, usually lasts a couple of minutes. Normal breathing then starts again. There may be some confusion and/or fatigue, followed by return to full consciousness.	Heart attack. Stroke.	Look for medical identification. Protect from nearby hazards. Loosen shirt collars. Protect head from injury. Turn on side to keep airway clear unless injury exists. Reassure as consciousness returns. If single seizure lasted less than 5 minutes, ask if hospital evaluation wanted.
<b>Absence</b> (Also called Petit Mal)	A blank stare, beginning and ending abruptly, lasting only a few seconds, most common in children. May be accompanied by rapid blinking, some chewing movements of the mouth. Child or adult is unaware of what's going on during the seizure, but quickly returns to full awareness once it has stopped. May result in learning difficulties if not recognized and treated.	Daydreaming. Lack of attention. Deliberate ignoring of adult instructions.	No first aid necessary, but if this is the first observation of the seizure(s), medical evaluation should be recommended.
<b>Simple Partial</b> (Also called Focal)	Jerking may begin in one area of body, arm, leg, or face. Can't be stopped, but patient stays awake and aware. Jerking may proceed from one area of the body to another, and sometimes spreads to become a convulsive seizure.  Partial sensory seizures may not be obvious to an onlooker. Patient experiences a distorted environment. May see or hear things that aren't there, may feel unexplained fear, sadness, anger, or joy. May have nausea, experience odd smells, and have a generally "funny" feeling in the stomach.	Acting out, bizarre behavior. Hysteria. Mental illness. Psychosomatic illness. Parapsychological or mystical experience.	No first aid necessary unless seizure becomes convulsive, then first aid as above.  No immediate action needed other than reassurance and emotional support. Medical evaluation should be recommended.
<b>Complex Partial</b> (Also called Psychomotor or Temporal Lobe, a Focal seizure with alteration of consciousness)	Usually starts with blank stare, followed by chewing, followed by random activity. Person appears unaware of surroundings, may seem dazed and mumble. Unresponsive. Actions clumsy, not directed. May pick at clothing, pick up objects, try to take clothes off. May run, appear afraid. May struggle or flail at restraint. Once pattern is established, same set of actions usually occur with each seizure. Lasts a few minutes, but post-seizure confusion can last substantially longer. No memory of what happened during seizure period.	Drunkenness. Intoxication on drugs. Mental illness. Disorderly conduct.	Speak calmly and reassuringly to patient and others. Guide gently away from obvious hazards. Stay with person until completely aware of environment. Offer to help get person home.
<b>Atonic Seizures</b> (Also called Drop Attacks)	A child or adult suddenly collapses and falls. After 10 seconds to a minute he recovers, regains consciousness, and can stand and walk again. This is not a sleep disorder.	Clumsiness. Normal childhood "stage." In a child, lack of good walking skills. In an adult, drunkenness, acute illness.	No first aid needed (unless he hurt himself as he fell), but the child should be given a thorough medical evaluation. The child may need a helmet.
<b>Myoclonic Seizures</b>	Sudden brief, massive muscle jerks that may involve the whole body or parts of the body. May cause person to spill what they were holding or fall off a chair.	Clumsiness. Poor coordination.	No first aid needed, but should be given a thorough medical evaluation.
<b>Infantile Spasms</b>	These are clusters of quick, sudden movements that start between three months and two years. If a child is sitting up, the head will fall forward, and the arms will flex forward. If lying down, the knees will be drawn up, with arms and head flexed forward as if the baby is reaching for support.	Normal movements of the baby. Colic.	No first aid, but doctor should be consulted.







## > What is Epilepsy?

**Epilepsy** is a neurological disorder that causes people to have recurrent seizures. A seizure is a brief disruption of electrical activity in the brain.

- Epilepsy is not contagious.
- Epilepsy is not mental illness.
- Epilepsy is not mental retardation.

## Who has Epilepsy?

Nearly 3 million Americans have epilepsy, and over 180,000 new cases are diagnosed in the United States each year. One in 10 people will have a seizure at some point in their lives. Three in 100 people will develop epilepsy by the age of 75.

Epilepsy doesn't discriminate. It affects children and adults, men and women, and people of all races, religions, ethnic backgrounds, and social classes. While epilepsy is most often diagnosed either in childhood or after the age of 65, it can occur at any age.

## How is Epilepsy Diagnosed?

Patient history, neurological examination, blood work and other clinical tests are all important in diagnosing epilepsy. Eyewitness accounts of a patient's seizures may also be important in helping the physician determine the type of seizures involved.

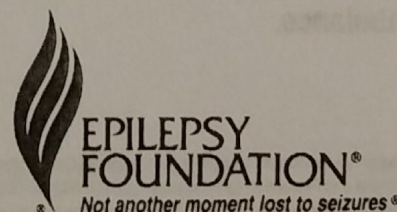
The electroencephalograph (EEG) is the most commonly used test in the diagnosing epilepsy. An EEG provides a continuous recording of electrical activity in the brain during the test. Some patterns of activity are unique to particular forms of seizures.

In some situations, physicians may also use CT scans, MRIs, and PET scans to look at the internal structure and function of the brain. These tests may help pinpoint causes of seizures.

## What Causes Epilepsy?

More than half the time, the cause is unknown. Where a cause can be determined, it is most often one of these:

- head injury
- infections that affect the brain
- stroke
- brain tumor
- Alzheimer's disease
- genetic factors





## What Teachers Need to Know

## *Managing* **STUDENTS** *with* **SEIZURES**



### **Did you know that:**

- Most seizures are NOT medical emergencies
- Students are often NOT aware they are having a seizure and will not remember what happened
- Epilepsy is NOT contagious
- Epilepsy is NOT a form of mental illness
- Students very rarely die or are brain damaged during a seizure
- A student CAN'T swallow his/her tongue during a seizure
- You should NEVER put anything in the mouth of someone having a seizure



### **Epilepsy can impact learning and behavior.**

#### **Here are some things to keep in mind:**

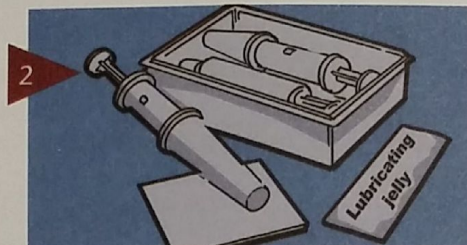
- Seizures may cause short-term memory problems
- After a seizure, coursework may have to be retaught
- Seizure activity, without obvious physical symptoms, can still affect learning
- Medications may cause drowsiness, inattention, concentration difficulties and behavior changes
- Students with epilepsy are more likely to suffer from low self-esteem
- School difficulties are not always epilepsy-related



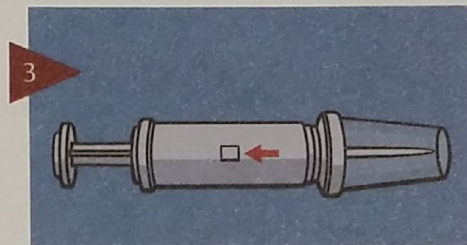
# CHILD ADMINISTRATION INSTRUCTIONS



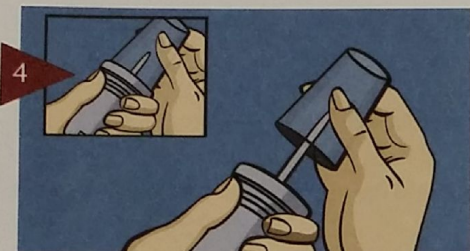
1 Put person on their side where they can't fall.



2 Get medicine.



3 Get syringe. Note: seal pin is attached to the cap.



4 Push up with thumb and pull to remove cap from syringe. **Be sure seal pin is removed with the cap.**



5 Lubricate rectal tip with lubricating jelly.



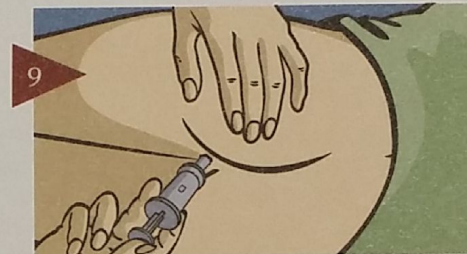
6 Turn person on side facing you.



7 Bend upper leg forward to expose rectum.



8 Separate buttocks to expose rectum.



9 Gently insert syringe tip into rectum. Note: rim should be snug against rectal opening.

**SLOWLY...**

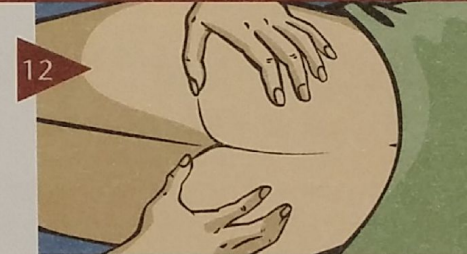
**COUNT OUT LOUD TO THREE...1...2...3**



10 Slowly count to 3 while gently pushing plunger in until it stops.



11 Slowly count to 3 before removing syringe from rectum.



12 Slowly count to 3 while holding buttocks together to prevent leakage.

**ONCE DIASTAT® IS GIVEN**



13 Keep person on the side facing you, note time given, and continue to observe.

## CALL FOR HELP IF ANY OF THE FOLLOWING OCCUR

• Seizure(s) continues 15 minutes after giving DIASTAT® or per the doctor's instructions:

- Seizure behavior is different from other episodes
- You are alarmed by the frequency or severity of the seizure(s)
- You are alarmed by the color or breathing of the person
- The person is having unusual or serious problems

Local emergency number: \_\_\_\_\_ Doctor's number: \_\_\_\_\_  
(Please be sure to note if your area has 911)

Information for emergency squad: Time DIASTAT® given: \_\_\_\_\_ Dose: \_\_\_\_\_

## DIASTAT® Indication

DIASTAT® AcuDial™ (diazepam rectal gel) is a gel formulation of diazepam intended for rectal administration in the management of selected, refractory patients with epilepsy, on stable regimens of AEDs, who require intermittent use of diazepam to control bouts of increased seizure activity, for patients 2 years and older.

## Important Safety Information

In clinical trials with DIASTAT®, the most frequent adverse event was somnolence (23%). Less frequent adverse events reported were dizziness, headache, pain, vasodilatation, diarrhea, ataxia, euphoria, incoordination, asthma, rash, abdominal pain, nervousness, and rhinitis (1%–5%).

D955-0308

**Diastat**  
(diazepam rectal gel)

**Diastat AcuDial™**  
(diazepam rectal gel)

**DISPOSAL INSTRUCTIONS ON REVERSE SIDE**



**IMPORTANT**

**Read first before using**

To the caregiver using DIASTAT®:

Please do not give DIASTAT® until:

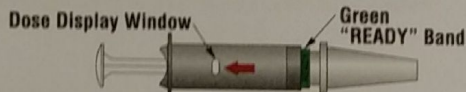
1. You have thoroughly read these instructions
2. Reviewed administration steps with the doctor
3. Understand the directions

To the caregiver using DIASTAT® AcuDial™:

Please do not give DIASTAT® AcuDial™ until:

1. You have confirmed:
  - Prescribed dose is visible and if known, is correct
  - Green "ready" band is visible

Confirm the dose and green ready band are visible.



2. You have thoroughly read these instructions
3. Reviewed administration steps with the doctor
4. Understand the directions

Please do not administer DIASTAT® until you feel comfortable with how to use DIASTAT®. The doctor will tell you exactly when to use DIASTAT®. When you use DIASTAT® correctly and safely you will help bring seizures under control. Be sure to discuss every aspect of your role with the doctor. If you are not comfortable, then discuss your role with the doctor again.

**To help the person with seizures:**

- ✓ You must be able to tell the difference between cluster and ordinary seizures.
- ✓ You must be comfortable and satisfied that you are able to give DIASTAT®.
- ✓ You need to agree with the doctor on the exact conditions when to treat with DIASTAT®.
- ✓ You must know how and for how long you should check the person after giving DIASTAT®.

**To know what responses to expect:**

- ✓ You need to know how soon seizures should stop or decrease in frequency after giving DIASTAT®.
- ✓ You need to know what you should do if the seizures do not stop or there is a change in the person's breathing, behavior, or condition that alarms you.

If you have any questions or feel unsure about using the treatment, **CALL THE DOCTOR** before using DIASTAT®.

When to treat. Based on the doctor's directions or prescription

**Special considerations**

DIASTAT® should be used with caution:

- In people with respiratory (breathing) difficulties (eg, asthma or pneumonia)
- In the elderly
- In women of child bearing potential, pregnancy, and nursing mothers

Discuss beforehand with the doctor any additional steps you may need to take if there is leakage of DIASTAT® or a bowel movement.

Patient's DIASTAT® dosage is: \_\_\_\_\_ mg

Patient's resting breathing rate \_\_\_\_\_ Patient's current weight \_\_\_\_\_

Confirm current weight is still the same as when DIASTAT® was prescribed \_\_\_\_\_

Check expiration date and always remove cap before using. Be sure seal pin is removed with the cap.

**TREATMENT 1**

Important things to tell the doctor

Date \_\_\_\_\_

\_\_\_\_\_

**Seizures before DIASTAT®**

Time	Seizure type	No. of seizures
_____	_____	_____
_____	_____	_____

**Seizures after DIASTAT®**

Time	Seizure type	No. of seizures
_____	_____	_____
_____	_____	_____

**Things to do after treatment with DIASTAT® AcuDial™**

Stay with the person for 4 hours and make notes on the following:

- Changes in resting breathing rate \_\_\_\_\_
- Changes in color \_\_\_\_\_
- Possible side effects from treatment \_\_\_\_\_

**TREATMENT 2**

Important things to tell the doctor

Date \_\_\_\_\_

\_\_\_\_\_

**Seizures before DIASTAT®**

Time	Seizure type	No. of seizures
_____	_____	_____
_____	_____	_____

**Seizures after DIASTAT®**

Time	Seizure type	No. of seizures
_____	_____	_____
_____	_____	_____

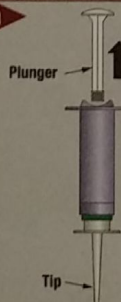
**Things to do after treatment with DIASTAT® AcuDial™**

Stay with the person for 4 hours and make notes on the following:

- Changes in resting breathing rate \_\_\_\_\_
- Changes in color \_\_\_\_\_
- Possible side effects from treatment \_\_\_\_\_

**DISPOSAL INSTRUCTIONS FOR DIASTAT® AcuDial™**

14a



- Pull on plunger until it is completely removed from the syringe body
- Point tip over sink or toilet



- Replace plunger into syringe body, gently pushing plunger until it stops
- Flush toilet or rinse sink with water until gel is no longer visible

SINK OR TOILET

This step is for DIASTAT® AcuDial™ users only

At the completion of step 14a:

- Discard all used materials in the garbage can
- Do not reuse
- Discard in a safe place, away from children

14b

**DISPOSAL FOR DIASTAT® 2.5 MG**

At the completion of step 13:

- Discard all used materials in the garbage can
- Do not reuse
- Discard in a safe place, away from children

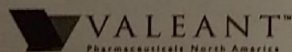
**Where can I find more information and support?**

For information on DIASTAT® and DIASTAT® AcuDial™:

Call 1-877-361-2719 or visit [www.diastat.com](http://www.diastat.com)

**Additional resource:**

Epilepsy Foundation (EF). You can reach EF by calling 1-800-EFA-1000 or [www.efa.org](http://www.efa.org).







# School Nurse Support for Students with Epilepsy

**STAY CALM—TIME SEIZURE—ASSURE SAFETY  
NOTHING IN THE MOUTH!**

**For Partial (wandering) and Absence (staring) Seizures:**

- Stay Calm and consult Seizure Action Plan
- Time and record seizure
- Don't grab or yell at student
- Stand between student and danger
- Stay with student until normal function/awareness returns
- Reorient student
- Repeat information student missed

**TONIC CLONIC/CONVULSIVE: See reverse side**

## **CALL 911 IF:**

- Seizure lasts 5 minutes or more (not including recovery time)
- 3 or more seizures in 1 hour without fully returning to consciousness
- Seizure is unusual for that student
- Fluids have been aspirated
- Student is injured, pregnant or has diabetes

## **Seizure Recovery:**

- Allow students to recover according to their needs
- Some students will need to sleep it off
- Some students may experience terrible post-ictal headaches

**AFTER THE STUDENT HAS RECOVERED, COMPLETE THE SEIZURE OBSERVATION FORM.**



# Seizure First Aid for Tonic-Clonic Seizures

Cushion & protect head



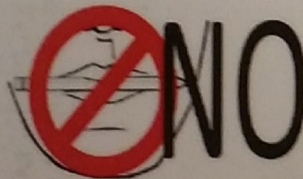
Turn on side, Remove harmful items



Loosen any tight clothing



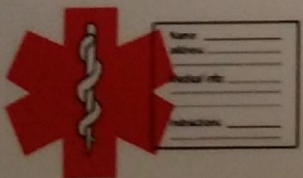
DON'T put anything in the mouth



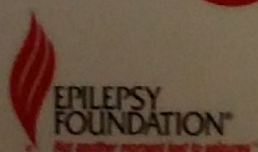
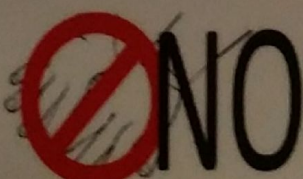
Time the seizure



Check for a medical I.D. card



DON'T restrain or hold down



1-800-332-1000 or 1-800 221-2689

**VNS:** Usually implanted in left chest below collarbone.

Swipe magnet across skin above device for one second (counting one-one thousand). Swipe from mid-chest out toward shoulder. It can be swiped multiple times as long as there is a pause between swipes.

Wait 1 to 2 minutes (depending on student's seizure action plan) and if still seizing, swipe magnet again.

DO NOT hold the magnet over the device. Placing magnet for 6 seconds or more will turn device off!

**CAUTION:** Avoid overstimulation! If more than 4 hours of constant stimulation occurs, damage to the vagus nerve can develop.

Magnet works best if used early—as seizure starts or just before.

**Rescue Medications:** Follow Student's Seizure Action Plan

## Diazepam Rectal Gel:

(See: [www.diastat.com/how-to-administer.aspx](http://www.diastat.com/how-to-administer.aspx))

Lay student on side, facing you.

Check dosage on side of barrel against student's prescribed dose.

Remove cap & check that locking pin is inside cap (not in nozzle).

Lubricate tip of administrator.

Bend student's upper leg to expose rectum.

THREE COUNTS OF THREE:

- > SLOWLY & gently insert tip into rectum while counting to 3.
- > SLOWLY count to 3 while pushing plunger until it stops
- > Hold rectum closed around tip and leave in rectum for count of 3.
- > SLOWLY remove administration tube and hold buttocks together to prevent leakage/loss of medication

## Buccal Lorazepam:

- 1 Lay student on side. Do not touch teeth, or force mouth open!
- 2 Wipe away excess saliva from mouth.
- 3 Lift cheek using tongue depressor, staying away from teeth.
- 4 Place lorazepam drops or tablets as far back in cheek as possible.
- 5 Rub exterior of cheek to aid absorption through cheek/gum tissue.
- 6 Do NOT expect student to swallow!

## Nasal Midazolam:

Note: A bloody nose or excessive nasal mucus secretions will reduce absorption. Consider suctioning blocked nostrils before administration if possible.

Remove and discard green vial adapter cap.

Pierce medication vial with the syringe vial adapter.

Aspirate proper volume of medication for student from medication vial (allow extra 0.1 ml for dead space in device.)

Remove (twist off) vial adapter and apply spray adapter.

Place student briefly on back (if you can do so safely). Administer half of medication in each nostril. Too much medication in one nostril will drip back out.

Once medication has been absorbed, turn student back on their side.



## AFTER ANY RESCUE MEDICATION:

Note time and dose given. Stay with student.

Keep student on side and observe:

- Color
- Breathing
- Seizure/resolution/progression



Veronica Garcia-Martinez  
DeKalb Epilepsy Service Coordinator



**EPILEPSY FOUNDATION®**  
NORTH/CENTRAL ILLINOIS IOWA & NEBRASKA  
***Not another moment lost to seizures™***

151 W. Lincoln Hwy.  
Suite c  
DeKalb, IL 60115

[www.epilepsyheartland.org](http://www.epilepsyheartland.org)

[epilepsydekalb@efncil.org](mailto:epilepsydekalb@efncil.org)  
**815-520-6366**  
Fax: 815-964-2731