tion. More information can be found at http://www.medicalert.org or by calling 1-888-633-4298.

Seizure patients must take their medicine exactly as instructed and have their blood levels checked as recommended by the primary care provider. Persons with epilepsy are not allowed to drive until they have not had a seizure for 3 months or longer, depending on the state. People with epilepsy should not swim alone. As with all people, epilepsy patients should wear helmets when riding bicycles, rollerblades, or using scooters. Epilepsy affects 1 out of 100 teenagers, and so coaches, teachers, and employers should be aware of the teenager’s condition and what to do if a seizure occurs.

Women and teenage girls may experience seizures right before the menstrual period. Hormonal changes may be responsible and seizure medications may need to be adjusted before the menstrual period. Some women with epilepsy have problems getting pregnant and when pregnant may have complications to the baby from the medications and/or experience more seizures during pregnancy. Complications to the baby are generally rare, with over 90% of babies born without problems.

Sleeping patterns, alcohol, and other medications can affect seizure threshold. Sleeping patterns should be consistent to avoid insomnia. Avoid alcohol, especially if it is known to bring on seizures. Seizure patients should not start or stop any medications, vitamins, herbs, or other supplements without consulting a primary care provider and pharmacist.

Seizures are caused by abnormal electrical discharges in the brain. Seizures can involve both the body (convulsions) and mind (altered mental status), or only parts of the body. Seizures are life-threatening when a condition known as status epilepticus occurs, meaning the seizure will not subside. If seizures are “mini” (petit mal or absence) instead of “grand mal”, it may not be noticeable that a person is having a seizure.

What Causes Seizures?
Seizures can be caused by conditions that do not lead to epilepsy, such as fever and medications. Young children with febrile seizures do not necessarily develop epilepsy unless other conditions

Symptoms of Seizures:
• A tingling sensation
• Brief staring
• The perception of an unusual smell or taste
• A twitching muscle
• Convulsive movements
• Confusion
• Fear or anxiety
• Changes in awareness
• Loss of consciousness
Seizures may occur in medical conditions such as cerebral palsy, autism, and mental retardation. Occasionally, epilepsy runs in families (genetically inherited).

How are Seizures Treated?
The goal of seizure treatment is to allow the patient to function normally, such as driving a car and going to work or school. Seizures can be treated with medication, surgery, or a combination of both. Antiseizure or anticonvulsant medications can cause drowsiness, interfere with thinking, and interfere with other medications, so it is important that the primary care provider and pharmacist know all medications (prescription and over-the-counter), vitamins, herbs, or other supplements a patient may be taking.

Surgery includes the use of a vagus nerve stimulator. The generator, or power of the stimulator, is placed under the skin of the chest wall and lead wires are wrapped around the vagus nerve. Surgery can also remove brain tissue in the area where the seizure begins. Less often, surgery to block the area where the seizure begins can be performed.

In children, epilepsy may also be controlled through a ketogenic diet. A ketogenic diet is high in fat, low in carbohydrates, and low in calories. This diet may stunt growth and must be supervised by providers and dieticians specially trained in ketogenic diets and monitoring.

Children and teenagers may outgrow their seizures.

Basic First Aid for Seizures
If you have a family member prone to seizures, the following information may be helpful:

- Be calm! Watching a seizure can be very frightening.
- Keep the seizing person away from obstacles that may harm them, and clear the area of any harmful items such as sharp objects. Place a pillow, blanket, jacket, or other soft, preferably flat, object under the person’s head if available. Be sure that the person is not face down to prevent suffocation.
- Do not try to stop the person’s movements or hold them down, but turn the person onto one side if possible.
- Call emergency medical services (911) if the person
  - has repeated seizures or the seizure lasts more than 5 minutes
  - fell or hit his or her head during the seizure
  - has difficulty breathing or is not breathing
  - remains unconscious for more than a few minutes after the seizure
  - has a known heart condition.

If you live with someone prone to seizures, CPR training is a good idea.

Monitor and note information about the seizure, including the time the seizure began and stopped, and body movement during the seizure.

After the seizure, do not offer food or fluids until the person is fully awake, able to sit upright, and can swallow easily. Also, be sure the person is comfortable. You may need to reorient the person to the day, time, and surroundings. Temporary amnesia can occur with seizures. Call the person’s primary care provider, if previously instructed to do so. Be sure to bring a record of all seizures to the next office visit.

Epilepsy Safety
Seizure patients should wear a medical alert tag or bracelet, or carry a card that identifies their condi-