

# OTHER HEALTH IMPAIRMENT

## ■ Definition of Other Health Impairment under IDEA

Other health impairment means having limited strength, vitality, or alertness, including a heightened alertness to environmental stimuli, that results in limited alertness with respect to the educational environment, that— Is due to chronic or acute health problems such as asthma, attention deficit disorder or attention deficit hyperactivity disorder, diabetes, epilepsy, a heart condition, hemophilia, lead poisoning, leukemia, nephritis, rheumatic fever, sickle cell anemia, and Tourette syndrome; and adversely affects a child's educational performance. 34 CFR 300(c)(9)

## ASTHMA

**Symptoms:** Wheezing, coughing, shortness of breath, tightness in chest, asthma is an inflammatory disease of the airways

**Allergens:** Cockroaches, mold, pet dander, pollen, dust

**Irritants:** Cigarette smoke, wood fires, strong odor/perfumes, paint, strenuous exercise, weather, food allergies, emotional stress. Triggers cause the following airway changes, which in turn cause asthma symptoms:

- The lining of the airways swell and become more inflamed
- Mucus clogs the airways
- Muscles tighten (bronchospasm) airway becomes narrow, breathing is difficult

Severe asthma symptoms indicating respiratory distress: Severe coughing, wheezing, shortness of breath or tightness in the chest, difficulty talking or concentrating, walking causes shortness of breath breathing may be shallow and fast or slower than usual, hunched shoulders, nostril size increases with breathing, neck area and between or below the ribs moves inward with breathing, gray or bluish tint to skin around the mouth.

## Emergency Response

1. Stay calm and try to relax
2. Tell someone—get help if you need it
3. Take the quick-relief medication as your asthma action plan tells you to
4. If the quick-relief medicine is not working within 5-10 minutes call the healthcare provider or 911
5. Keep taking the quick-relief medicine every 5-10 minutes until emergency help arrives

## Oklahoma Statistics:

- Nearly half of adults with asthma were diagnosed prior to the age of 11
- 14% middle school students currently have asthma
- 12% high school students have asthma.
- Asthma affects 22 million Americans: 232,900 Oklahoma adults and 78,500 Oklahoma children. 78,500 children under age 18 (9.2%) reported that they currently have asthma.

African American children had the highest prevalence of both lifetime and current asthma. Among children with current asthma, 71.9% experienced an episode or attack of asthma during the past 12 months.

## • Oklahoma Asthma Initiative

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

## • Oklahoma State Department of Health

[www.ok.gov/health](http://www.ok.gov/health)

## • National Institutes of Health

[www.nih.gov](http://www.nih.gov)

## • American Lung Association

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

## • Centers for Disease Control and Prevention and National Institutes of Health

[www.healthypeople.gov](http://www.healthypeople.gov)

## • Centers for Disease Control and Prevention

[www.cdc.gov](http://www.cdc.gov)

## **ATTENTION DEFICIT DISORDER (ADD) OR ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD)**

**Symptoms:** Trouble paying attention, talking nonstop, having trouble staying still, hard time controlling behavior, distracted easily, forgetful, switch quickly from activities, have trouble with directions, daydream, trouble finishing tasks, loses things, fidget and squirm, disruptive, run around, touch and play with everything, impatient, blurt out inappropriate comments, trouble controlling emotions.

**Definition:** ADHD is a common childhood disorder, and it may affect children differently. It makes it hard for a child to focus and pay attention. Some kids may be hyperactive or have trouble being patient. ADHD can make it hard for a child to do well in school or behave at home.

**Causes of ADHD:** No known cause. ADHD probably comes from a combination of things such as: genetics, lead, smoking and drinking during pregnancy, brain injuries, food additives.

**Parent Role:** Give your child guidance and understanding. Provide support. Set clear rules to be followed. Punishment is not required every time rules are broken. Let your child know you can help.

**Oklahoma Statistics:** In 2007, 11% of youth 4-17 were diagnosed with ADHD.

**Nationwide Statistics:** In 2007-2009, 9% children 5-17 were diagnosed with ADHD.

### **ADHD Prevalence:**

- 2007-2009 boys 12.3%, girls 5.5%
- 2007-2009 non-Hispanic white 10.6%, non-Hispanic black 9.5%
- 2007-2009 children with family income less than 100% of poverty level 10.3%
- 2007-2009 children with family income 200% or more of poverty level 7.9%

• **ADHD Brochure/National Institutes of Mental Health**  
[www.nimh.nih.gov/health/publications/attention-deficit-hyperactivity-disorder-easy-to-read/complete.pdf](http://www.nimh.nih.gov/health/publications/attention-deficit-hyperactivity-disorder-easy-to-read/complete.pdf)

• **Children and Adults with Attention Deficit/  
Hyper-Activity Disorder**  
[www.chadd.org/](http://www.chadd.org/)

• **Social Express Computer Software**  
[www.thesocialexpress.com](http://www.thesocialexpress.com)

## **DIABETES**

**Symptoms:** Frequent urination, unusual thirst, extreme hunger, unusual weight loss, extreme fatigue and irritability, frequent infections, blurred vision, cuts/bruises that are slow to heal, tingling/numbness in the hands/feet, recurring skin, gum, or bladder infections.

**Definition:** a group of diseases characterized by high blood glucose levels that result from defects in the body's ability to produce and/or use insulin.

**Oklahoma Statistics:** Oklahoma ranked seventh highest in the nation for the prevalence of people living with diabetes in 2009. Oklahoma has been consistently in the top ten for several years. Minority populations reported higher prevalence of diabetes than whites. The prevalence of diabetes was higher among people living in the eastern part of the state. One in 5 hospital admissions in Oklahoma include a diagnosis of diabetes. Lack of physical activity is one of the major risk factors of diabetes. Oklahoma adults who participated in leisure-time physical activity reported significantly lower prevalence of diabetes. Obesity (Body Mass Index, BMI $\geq$ 30) and overweight (25 $\leq$ BMI $<$ 30) are risk factors of diabetes. Diabetes is more common among persons with higher BMI.

**National Statistics:** In 2010 Diabetes affected 25.8 million people, 8.3% of the U.S. population. 7.9% of children  $\leq$ 20 years were diagnosed with diabetes.

### • **American Diabetes Association**

[www.diabetes.org/in-my-community/local-offices/oklahoma-city-oklahoma/](http://www.diabetes.org/in-my-community/local-offices/oklahoma-city-oklahoma/)

### • **Oklahoma State Department of Health 2011 State of the State's Health Report**

[www.ok.gov/health/pub/boh/state/SOSH2011.pdf](http://www.ok.gov/health/pub/boh/state/SOSH2011.pdf)

## **EPILEPSY**

**Definition:** Epilepsy is a brain disorder in which clusters of nerve cells, or neurons, in the brain sometimes signal abnormally. In epilepsy, the normal pattern of neuronal activity becomes disturbed, causing strange sensations, emotions, and behavior, or sometimes convulsions, muscle spasms, and loss of consciousness.

**Causes:** Epilepsy is a disorder with many possible causes such as: illness, brain damage, abnormal brain development, exposure to lead.

**Triggers:** Lack of sleep or sleep deprivation, alcohol consumption, stress, or hormonal changes associated with the menstrual cycle, light flashing at a certain speed or the flicker of a computer monitor. Seizure triggers do not cause epilepsy but can provoke seizures.

**Symptoms:** Symptoms can vary from a momentary disruption of the senses, to short periods of unconsciousness or staring spells, to convulsions.

**Types of Seizures:** Seizures are divided into two major categories – focal seizures and generalized seizures. However, there are many different types of seizures in each of these categories. Focal seizures, also called partial seizures, occur in just one part of the brain. About 60 percent of people with epilepsy have focal seizures. Generalized seizures are a result of abnormal neuronal activity on both sides of the brain.

### **Seizure Emergency Response**

1. Roll the person on his or her side to prevent choking on any fluids or vomit.
2. Cushion the person's head.
3. Loosen any tight clothing around the neck.
4. Keep the person's airway open. If necessary, grip the person's jaw gently and tilt his or her head back.
5. Do NOT restrict the person from moving unless he or she is in danger.
6. Do NOT put anything into the person's mouth, not even medicine or liquid. These can cause choking or damage to the person's jaw, tongue, or teeth. Contrary to widespread belief, people cannot swallow their tongues during a seizure or any other time.
7. Remove any sharp or solid objects that the person might hit during the seizure.
8. Note how long the seizure lasts and what symptoms occurred so you can tell a doctor or emergency personnel if necessary.
9. Stay with the person until the seizure ends.

### **Call 911 if:**

- The person is pregnant or has diabetes, seizure happened in water, lasts longer than 5 minutes
- The person does not begin breathing again or return to consciousness after the seizure stops,
- The person injures himself or herself during the seizure.

- **Epilepsy Association of Oklahoma**

[www.okepilepsy.org/wiki/doku.php](http://www.okepilepsy.org/wiki/doku.php)

- **National Institutes of Neurological Disorders and Stroke**

[www.ninds.nih.gov/disorders/epilepsy/epilepsy.htm](http://www.ninds.nih.gov/disorders/epilepsy/epilepsy.htm)

- **EpilepsyFoundation.org**

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

### **Epilepsy Facts**

- [www.ninds.nih.gov/disorders/epilepsy/detail\\_epilepsy.htm#219583109](http://www.ninds.nih.gov/disorders/epilepsy/detail_epilepsy.htm#219583109)
- [www.charlifoundation.org/resources/epilepsy-terminology.html](http://www.charlifoundation.org/resources/epilepsy-terminology.html)
- **CureEpilepsy.org**  
[www.cureepilepsy.org/aboutepilepsy/facts.asp](http://www.cureepilepsy.org/aboutepilepsy/facts.asp)

## **HEART CONDITION**

Definition: Coronary heart disease—often simply called heart disease—is the main form of heart disease. It is a disorder of the blood vessels of the heart that can lead to heart attack. A heart attack happens when an artery becomes blocked, preventing oxygen and nutrients from getting to the heart. Heart disease is one of several cardiovascular diseases, which are diseases of the heart and blood vessel system. Other cardiovascular diseases include stroke, high blood pressure, angina (chest pain), and rheumatic heart disease.

Oklahoma Statistics: In 2002, Oklahoma ranked second in heart disease mortality and eighth in stroke mortality. Diseases of the heart accounted for 31% of all deaths in Oklahoma in 2004.

- **Burden of Heart Disease & Stroke in the Sooner State**

[www.ok.gov/health/documents/burden%20document%20for%20web%206-13-06.pdf](http://www.ok.gov/health/documents/burden%20document%20for%20web%206-13-06.pdf)

- **National Institutes of Health**

[www.nhlbi.nih.gov/educational/hearttruth/lower-risk/what-is-heart-disease.htm](http://www.nhlbi.nih.gov/educational/hearttruth/lower-risk/what-is-heart-disease.htm)

- **American Heart Association**

[www.heart.org/oklahomacity](http://www.heart.org/oklahomacity)

## HEMOPHILIA

**Definition:** Hemophilia is a hereditary disorder in which the clotting ability of the blood is impaired and excessive bleeding results.

**Cause:** The disease is passed down through the genes.

- **Oklahoma Hemophilia Foundation**  
[www.okhemophilia.org/](http://www.okhemophilia.org/)
- **National Hemophilia Foundation**  
[www.hemophilia.org](http://www.hemophilia.org)

## LEAD POISONING

Lead Poisoning is caused by swallowing or inhaling lead particles or dust. It is often found in paint, dust and soil in older homes. Lead poisoning can damage the brain, kidneys, and the nervous system of small children.

- **Oklahoma Poison Control**  
[www.oklahomapoison.org/](http://www.oklahomapoison.org/)
- **Oklahoma Childhood Lead Poisoning Prevention Program**  
[www.ok.gov/health/Child\\_and\\_Family\\_Health/Screening,\\_and\\_Special\\_Services//Oklahoma\\_Childhood\\_Lead\\_Poisoning\\_Prevention\\_Program/index.html](http://www.ok.gov/health/Child_and_Family_Health/Screening,_and_Special_Services//Oklahoma_Childhood_Lead_Poisoning_Prevention_Program/index.html)
- **United States Environmental Protection Agency**  
[www.yosemite.epa.gov/ochp/ochpweb.nsf/content/fastfacts.htm](http://www.yosemite.epa.gov/ochp/ochpweb.nsf/content/fastfacts.htm)

## LEUKEMIA

**Definition:** Leukemia is a type of cancer that affects the blood and bone marrow, the spongy center of bones where our blood cells are formed. The disease develops when blood cells produced in the bone marrow grow out of control.

**National Statistics:** 2011 data revealed, approximately 31 percent more males are living with leukemia than females. Incidence is highest among whites.

**Cause:** The cause of most cases of leukemia is not known. Extraordinary doses of radiation and certain cancer therapies are possible causes.

- **Leukemia & Lymphoma Society of Oklahoma**  
[www.lls.org/aboutlls/chapters/ok/](http://www.lls.org/aboutlls/chapters/ok/)
- **United States Environmental Protection Agency**  
[www.yosemite.epa.gov/ochp/ochpweb.nsf/content/fastfacts.htm](http://www.yosemite.epa.gov/ochp/ochpweb.nsf/content/fastfacts.htm)

## NEPHRITIS

**Definition:** Inflammation of the kidney caused by a disease of the immune system

**Symptoms:** frequent or less often urination, fatigue, loss of appetite, nausea/vomiting, swelling in hands or feet, feel itchy or numb, trouble concentrating, darkened skin, muscle cramps.

**Causes:** The causes of SLE are unknown. Many factors may play a role, including Gender — SLE is more common in women than men, heredity — a gene passed down by a parent, infections, viruses, environmental causes.

- **National Institutes of Health**  
[www.kidney.niddk.nih.gov/kudiseases/pubs/lupusnephritis/LupusNephritis\\_508.pdf](http://www.kidney.niddk.nih.gov/kudiseases/pubs/lupusnephritis/LupusNephritis_508.pdf)
- **National Kidney Foundation**  
[www.kidney.org](http://www.kidney.org)
- **National Kidney and Urologic Diseases Information Clearinghouse**  
[www.kidney.niddk.nih.gov/KUDiseases/pubs/yourkidneys/index.aspx](http://www.kidney.niddk.nih.gov/KUDiseases/pubs/yourkidneys/index.aspx)

## RHEUMATIC FEVER

**Definition:** Rheumatic fever is a bacterial infection that can cause problems with the heart.

**Cause:** Rheumatic fever is caused by certain strains of streptococcal bacteria. A strep throat infection that isn't properly treated can trigger rheumatic fever.

**Tendency:** Rheumatic fever is rare in Canada, the United States, and western Europe. But it was fairly common until the 1950s. Today, most rheumatic fever cases occur in developing countries, particularly Africa and southeast Asia. Widespread use of antibiotics to treat strep throat has greatly lowered the number of new cases of rheumatic fever.

- **Rheumatic Fever and Heart Problems General Information**  
[www.mercy.net/elrenook/healthinfo/uf4498abc](http://www.mercy.net/elrenook/healthinfo/uf4498abc)

## SICKLE CELL ANEMIA

**Definition:** Sickle cell disease is a serious disorder in which the body makes sickle-shaped (crescent shaped) red blood cells. Sickle cells are stiff and sticky. They tend to block blood flow in the blood vessels of the limbs and organs. Blocked blood flow can cause pain and organ damage. It can also raise the risk for infection.

**Cause:** Sickle cell anemia is an inherited, lifelong disease. People who have the disease are born with it.

### • Oklahoma Department of Health:

#### Parent Resources

[www.ok.gov/health/Child\\_and\\_Family\\_Health/Screening,\\_and\\_Special\\_Services/Newborn\\_Screening\\_Program/Disorders\\_screened/NBS-Sickle\\_Cell\\_Disease\\_Parent\\_Info.html](http://www.ok.gov/health/Child_and_Family_Health/Screening,_and_Special_Services/Newborn_Screening_Program/Disorders_screened/NBS-Sickle_Cell_Disease_Parent_Info.html)

### • U.S. Department of Health and Human Resources

[www.nhlbi.nih.gov/health/health-topics/topics/sca/](http://www.nhlbi.nih.gov/health/health-topics/topics/sca/)

### • March of Dimes Sickle Cell Information

[www.marchofdimes.com/baby/birthdefects\\_sicklecell.html](http://www.marchofdimes.com/baby/birthdefects_sicklecell.html)

## TOURETTE SYNDROME

**Definition:** Tourette Syndrome is a chronic neurological disorder characterized by repeated involuntary movements and vocalizations called tics.

**Cause:** The cause is unknown, current research proposes that the disorder stems from the abnormal activity of at least one brain chemical (neurotransmitter) called dopamine.

**Triggers:** Tics increase as a result of tension or stress, and decrease with relaxation or when focusing on an absorbing task.

### • Tourette Syndrome Foundation:

#### Oklahoma Chapter

[www.oktsa.com/](http://www.oktsa.com/)

## Instructional Accommodations

- Auditory reminders (e.g., personal timer or clock to remind a student to move on to the next question, page, or section)
- Basic Transcribing
- Blank graphic organizers
- Blank place markers to guide text
- Book on CD
- Calculation devices
- Colored overlays
- Computer software: word-prediction, text-to-speech, or speech-to-text software
- Extra set of books for use at home
- Extra time
- Highlighter or colored pencils
- Individual or small group instruction
- List of formulas for scientific or mathematic concepts ( $L=WH$ , Length = width X height)
- Math charts: Multiplication chart, addition chart, 100s chart, place value chart, pictorial models of fraction bars or fraction circles, or models of one-, two-, and three-dimensional geometric figures
- Math Manipulatives (place value blocks, colored tiles, etc.)
- Mnemonic device: learning technique that assists with memory.
- One on one support with teacher
- Peer tutor
- Photocopy of teacher notes
- Physical assistance: Positioning materials, operating technology, turn pages, using the mouse to navigate
- Preferential seating
- Procedures or materials to minimize distractions
- Scratch paper/other workspace
- Separate location (quiet environment)
- Tactile reminders (e.g., taps student on the shoulder, using paperclips to location information)
- Teacher highlights every other line of text in book to aid in tracking
- Verbal reminders to stay on task (e.g ., "You need to continue working.")
- Visual reminders (e.g., color-coded cards, student calendar, picture schedule)