

School Health Advisory Councils (SHAC) provide an efficient, effective structure for creating and implementing age-appropriate, sequential health education programs, and early intervention and prevention strategies that can easily be supported by local families and community stakeholders.

As part of this mission, the WISD SHAC members, which include district employees, parents, nurses, and practicing and retired physicians, have assembled a Health Conditions Handbook as a reference guide to some common health issues. This is for reference only. For emergencies, always refer to a health care professional or call 911.

HEALTH CONDITIONS HANDBOOK

ASTHMA—Asthma is also called Reactive Airway Disease (RAD) and is characterized by spasm or constriction in airways (bronchial tubes) along with excess mucous production. It is a condition that is frequently associated with allergies. Asthma often runs in families. The symptoms can come and go, but in severe cases, the sufferer can experience almost ongoing breathing issues.

Allergens are substance we live with that trigger allergic reactions in our bodies. Common allergens are dog and cat dander (flakey, dry skin, not hair), dust mites (biggest source is bed mattress), cigarette smoke, feathers and seasonal plants and trees. Common example of this are ragweed and mountain cedar. Some perfumes and household cleaners may also trigger asthmatic reactions. The common cold and stress can cause the asthma sufferer to have a reaction.

Asthma can only be treated successfully if the offending allergen is removed from the environment of the asthmatic. Allergy testing may be helpful in identifying the culprit and in developing allergy injections to reduce sensitivity.

Mild asthma can be treated with “rescue” medications such Albuterol or Primatene. These medications temporarily dilate (make larger) bronchial tubes and improve the flow of oxygen and carbon dioxide. More persistent asthma requires preventative medications like inhaled cortisone to reduce inflammation. These medicines are to be used every day regardless of whether or not symptoms are present. This helps prevent asthma flare-ups. When symptoms are present, dilators (example: Albuterol) are used in addition to give prompt, though temporary relief. Consequently, these are referred to as “rescue” medications.

It is crucial for parents of asthmatics to have a “peak flow meter” which is a device that measures the volume of air breathed with each inhalation. When the asthmatic’s ability to take in air falls below their usual normal levels (volume decreases), a dangerous situation is developing. Prompt medical attention is required. It is also very helpful for parents to have a pulse oximeter to measure blood oxygen levels. This is very helpful in determining the severity of an asthma attack and to monitor their child’s status throughout. Vaporizers and humidifiers may also be helpful. The use of expectorants may be recommended by the child’s health care provider to help thin mucous making it easier to expel by coughing.

Asthma is a serious, potentially life-threatening condition that is frequently under-treated. If an individual requires a rescue medication more than twice weekly, a daily preventative is indicated. The continuing need for rescue medications may signal a worsening condition that could potentially lead to death.

CUTS & SCRAPES— A laceration is a cut in the skin and an abrasion is a scrape on the skin. Abrasions and shallow cuts should be cleaned with mild soap and water and dried thoroughly. A thin layer of antibiotic ointment may be applied along with a bandage or gauze dressing. The bandage is only necessary for protection against bumping and it is otherwise fine to leave the area open to air.

Deeper cuts that won't close, continue to bleed for a prolonged period of time, or that expose fat, muscle, tendon or bone, most likely need stitches. This will require a visit to a health care professional. Very dirty cuts and bites (human or animal) are notoriously germ-filled and may not be stitched due to the increased risk of infection of enclosing a dirty wound. Ice can be helpful to reduce pain and swelling but must be removed frequently to prevent damage to the skin from the cold temperature.

If a cut or scrape becomes red, swollen, increasingly sore or tender, and/or there is puss present, it needs to be evaluated by a health care professional. A current tetanus shot (within the last 5 years) is also recommended.

DIABETES - Diabetes is a serious, chronic disease that impairs the way the body uses food. Insulin, a hormone produced by the pancreas, helps the body convert food into energy. In diabetes, either the pancreas does not make insulin or the body cannot use the insulin properly. This can cause the body's blood sugar level to be too high or too low.

Diabetes cannot be cured at this point, only managed. Diabetics must carefully balance food, medications, and activity levels to keep the blood sugar level as close to normal as possible.

Types of Diabetes:

Type I: This is an autoimmune disease in which the body attacks and kills the cells in the pancreas that make insulin. As a result, the individual must receive insulin through a pump or insulin injection every day. This most commonly afflicts children and young adults. Diet, insulin and exercise must all be carefully regulated.

Type II: In Type II diabetes, insulin is not used properly by the body. Depending on the individual case, the condition may be controlled with diet and exercise. In other instances, oral medications and/or injections may be required along with diet and exercise programs.

Gestational: Gestational diabetes develops during pregnancy. It occurs more often in African Americans, Native Americans, Latinos and people with a family history of diabetes. Typically, it disappears after delivery, although the condition is associated with an increased risk of developing diabetes later in life.

Signs and Symptoms of Diabetes: Common symptoms of diabetes include the following:

- Frequent urination
- Excessive thirst
- Unexplained weight loss
- Extreme hunger
- Sudden vision changes
- Tingling or numbness in the hands or feet
- Feeling very tired much of the time
- Very dry skin
- Sores that are slow to heal
- More infections than usual

About one half of the individuals that have Type II diabetes don't have any symptoms and don't know they have the disease. For this reason, yearly visits to a health-care professional are very important. Diabetes affects every part of your body and should be taken very seriously. Individuals with diabetes should work closely with their medical providers to manage their condition.

GASTROENTERITIS (STOMACH VIRUS) – Stomach viruses are a group of very contagious viruses which can cause nausea, vomiting, fever, cramps, diarrhea, body aches and headache. These viruses are spread primarily by poor hand washing after bathroom use and also through close personal contact. It usually takes 1-3 days for these viruses to incubate with the earliest symptoms being fatigue and nausea. Vomiting and/or diarrhea may occur and can be severe and persistent. It is common however to see family members affected somewhat differently.

It is usually best to “wait out” stomach viruses. It is particularly important to delay eating hard to digest foods that can irritate the gut and prolong the symptoms. A “clear liquid” diet is recommended – water, juice, broth, gelatin, Gatorade, soda and popsicles are good examples.

Anti-diarrheal medications (example: Imodium) will help control diarrhea, but should only be used when symptoms are severe. It is usually best to allow the diarrhea and vomiting to rid the system of the offending virus. Anti-nausea medications can help prevent dehydration and loss of potassium and sodium-the most common complication of stomach viruses. These are available by prescription and over-the-counter. Signs of dehydration are decreased urination and tearing, dryness inside the mouth, poor skin turgor, weakness and confusion. If these symptoms are present, prompt medical attention is required.

There are also some bacterial infections that affect the stomach. Contamination of water or food with E-coli, Salmonella, Shigella, Staphylococcus, and Giardia can cause symptoms similar to those of viral infections. These bacterial infections can be treated with antibiotics.

HEADACHES, MIGRAINE – Migraine headaches are very common and can be severe and persistent. A more accurate name might be vascular headaches as they affect the blood vessels of the brain, skull and scalp. Migraines may begin with a warning (known as an “aura”) signaling the constricting (getting smaller) of blood vessels. This temporarily reduces blood flow to part of the brain and may cause visual changes, such as seeing spots or flashing lights. Speech and the ability to read or write may also be affected briefly. The vascular constriction lasts only minutes to ½ hour and is followed by a dilation (getting larger) phase. In this phase, the affected blood vessels swell causing a throbbing, often one-sided, headache that can be accompanied by nausea. These symptoms are usually benefited by sleep.

Migraine headaches tend to run in families. They can be triggered by physical or emotional stress, dramatic changes in daily routine, low blood sugar, certain foods and menstrual cycles. Helpful over-the-counter medications are Ibuprofen and Naproxen. A group of prescription medications called Triptans can “break” or stop a migraine if taken early. Identification and elimination of triggering factors is essential but not always easy.

HIGH BLOOD PRESSURE / HYPERTENSION – In the medical world, high blood pressure is called hypertension. This may be a misnomer as it has nothing to do with either being “hyper” or with tension.

Blood pressure machines (sphygmomanometers) measure the pressure exerted by the blood as it flows through the arteries applying pressure to the arterial walls. As the heart pumps, blood flows continuously through the vessels both while the heart is pumping (systole) and while it is refilling (diastole). The pressure on the artery wall is measured in millimeters of mercury on a sphygmomanometer. An average normal adult blood pressure is 120/70, though this measurement may vary.

Most high blood pressure has no known cause. Hypertension does tend to run in families and is especially common among African-Americans. High blood pressure can be partially dietary in origin as diets high in sodium and fat increase one’s risk. Obesity also increases blood pressure and most individuals can lower their blood pressure by losing weight. Avoiding salty foods and decreasing added salt can also help along with restricting caffeine, nicotine and other stimulants.

Prolonged high blood pressure can cause heart attacks, stroke and kidney failure. It is crucial that everyone check their blood pressure periodically to make sure it is in a safe range.

A variety of excellent blood pressure lowering medications are available by prescription-many of which are generic and affordable. With the number of options available, an effective, affordable medication for high blood pressure can be easily accessed.

HYPOGLYCEMIA

How Does Hypoglycemia Happen?

- The body's most important fuel is a type of sugar called **glucose**.
- When you eat most foods, sugar is released into your body as glucose.
- **Insulin** is a chemical in the bloodstream that helps keep glucose levels in a healthy range.
- If the glucose level in your bloodstream is not just right, your body will react.
- Your body, especially your brain and nervous system need a certain amount of glucose to work right.
- If the blood glucose level is too low, **hypoglycemia** occurs.
- **Hypoglycemia is not a disease. It usually means there is a health problem that needs to be corrected.**

What Causes Hypoglycemia?

- Examples are people who have:
 - Diabetes and take medicine that lowers blood glucose
 - Starvation
 - Certain medications
 - Severe, chronic illness
 - Tumors that cause the body to make too much insulin
 - Drinking too much alcohol and not eating at the same time
 - Rare genetic problems that start when you are a baby

Symptoms of Hypoglycemia

- Skin become pale and sweaty
- Shakiness
- Anxiety
- Fast, pounding heartbeat
- Headache
- Extreme hunger
- Blurry vision
- Fatigue
- Weakness
- Severe symptoms:
 - Confusion
 - Seizures
 - Loss of consciousness

It is Important to Remember:

Symptoms of hypoglycemia can occur from other causes

- It is normal to have a headache, fatigue, or weakness occasionally if you are stressed or not getting enough sleep.
- Drinking too much caffeine in sodas, coffees, or other drinks can cause jitters or shakiness.
- Eating high amounts of sugar may cause symptoms of hypoglycemia even though your blood glucose level is not too low.
- **Hypoglycemia is not usually caused by going without food unless you go without food for a long time.**

How is Hypoglycemia Diagnosed and Treated?

- It is important to see the doctor if you think you are having problems with hypoglycemia.
- Your blood sugar will be tested.
- The doctor will test to see if there are other diseases that might be causing hypoglycemia.

Things You Can Do to Avoid Symptoms of Hypoglycemia.

- Eat frequent, healthy small meals
- Avoid high-caffeine drinks
- Avoid eating lots of foods that are high in starch and sugar such as donuts
- Get plenty of rest
- Find ways to manage stress
 - Talking to someone about your stress
 - Exercise
 - Quiet time

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INFLUENZA (FLU)– Flu is a seasonal, communicable disease that affects all ages. It spreads quickly, especially in schools and colleges, and is concentrated in colder weather. There are a number of strains of flu. Each year, a vaccine consisting of 3 strains is produced to cover the three most likely causes of flu for that season. Though the vaccine is not 100%, it is generally highly successful and the side effects are usually mild.

Flu is spread by mucous droplets from the coughing and sneezing of affected individuals or from touching objects that they have touched. The incubation period is 2-3 days and the onset of the illness is often abrupt and dramatic. There is a sudden onset of fever, chills, headache, body aches, and weakness followed by cough and stomach upset. Most individuals with the flu find it difficult to get out of bed and function normally. There are anti-viral medications available that can help decrease the intensity and duration of the symptoms if taken early (within the first 24 hours) in the illness. Otherwise, treatment is symptomatic for the cough, body aches and fever. Stay home from work or school until you are fever-free for 24 hours without taking fever-reducing medications.

NOSEBLEEDS (EPISTAXIS)– Nosebleeds occur for a variety of reasons, most of which are not serious. They are more common in the winter months due to the drying effect of central heat on the air we breathe. The membranes inside the nose also dry out, become fragile and break easily. Lowering the thermostat and adding humidifiers or vaporizers may help in prevention. Hard sneezing, blowing, or nose picking can also cause nose bleeds. Frequently, no cause at all can be determined.

Nose bleeds often occur from the septum, the bone in the center of the nose that divides the two nostrils. Frequently, pinching the nose together to provide pressure will control the bleeding. Application of ice to the nose will cause the blood vessels to constrict and may help control bleeding as well.

One must gently blow the nose to remove clots or the bleeding will not stop. For persistent nose bleeds, recline the individual's head to 45 degrees and blow nose to clear clots. Then, using controlled deliberate breathing (not hyperventilating), inhale cool room air through the nose and exhale the warm air through the mouth. The cool air in the nose will slow the bleeding of the broken vessels and exhaling the warm air through

the mouth will avoid dilating the vessels and increasing blood flow. This technique will stop most nose bleeds. Remember, it is very important to gently blow out the clots.

Persistent, severe nose bleeds require medical attention. Treatment may include the nose being packed or the vessels inside the nose being cauterized.

SEIZURES – A seizure is the physical picture we see when there is an abnormal discharge of electrical activity originating in an area of the brain. This abnormal area of brain can be caused by scarring from a birth injury or by trauma from an event, such as a fall or an automobile accident that has occurred at some point in the individual's life. Frequently, no actual source of brain abnormality can be found. Seizures also tend to run in certain families. Much less often, serious issues such as brain tumors and meningitis will be the cause of seizures.

Fainting can cause abnormal body movements that can mimic a seizure. When an individual faints, the blood supply to the brain is temporarily reduced and a brief unconsciousness can occur. "Seizure-like" activity may be observed at this point, though it is usually shorter in duration and less severe than a real seizure.

Major motor seizures involve rhythmic jerking of the arms, legs and torso. There is a brief loss of consciousness during which the individual is unaware of their surroundings. There can also be a loss of bladder control, tongue biting, labored breathing, and clenched teeth during the seizure. Afterward, the individual frequently has a period of sleepiness and confusion. This type is called a grand mal (big, bad) seizure. The most serious risk of a grand mal seizure is ineffective breathing during the course of the event. The first thing that should be done for an individual having this type of seizure is to maintain their safety. Simply keep them from hurting themselves or falling as they are thrashing about. Secondly, ensure that the person is breathing effectively by monitoring their color and ensuring that air is moving in and out when they breathe.

Petit mal (little, bad) seizures are "absent attacks" where no shaking, jerking or falling is involved during the event. The individual may stare absently into space, unaware of his or her surroundings. This usually lasts from a few seconds to a few minutes. Afterward, the individual "awakens" unsure of what has taken place. Other rarer types of seizures may include lip smacking or similar repetitious movements with the person being unaware it is happening.

There are many medications available to treat the various types of seizures. Although most medications work well, some seizures can be difficult to control. In rare cases, surgery can be done on the brain and the offending area destroyed electrically (ablation).

SPRAINS AND STRAINS – Our bones are held together at the joints by bands of leather-like connective tissue called ligaments. If joints are twisted, like a knee or an ankle after stepping in a hole, or "jammed", like a finger that has been hit by a forcefully thrown ball, these ligaments may become damaged. They can become stretched (grade 1), partially torn (grade 2), or completely torn (grade 3).

A mnemonic for treating sprains (also known as strains) is the following:

R – I – C – E

R: Rest-get out of sports and activity; stop using the injured joint completely

I: Ice-cold constricts blood vessels, stops bleeding, and reduces swelling; should be applied off & on

C: Compression-ace wraps will reduce swelling and provide support; knees-6 inch, ankles-3-4 inch wraps

E: Elevation – elevate the injured body part above the heart to reduce swelling and decrease throbbing pain

Anti-inflammatories such as Aleve (Naproxen) and Advil (Ibuprofen) can also help reduce pain and swelling. Follow the manufacturer's instructions carefully. Most sprains or strains will heal slowly in two to four weeks. Unusual pain or swelling, redness, heat, or instability in the affected joint requires medical attention.

UPPER RESPIRATORY INFECTION/COMMON COLD – Upper respiratory infections, also known as the common cold, are viral infections of the nose, ears, sinuses, throat, voice box (larynx), and upper airway (bronchial tubes and trachea). They are very contagious and are spread by close contact from nasal and chest mucous. The virus incubates for two to three days from contact before symptoms begin to appear. The early symptoms are fatigue and achiness followed by runny nose and congestion, sore throat, hoarseness, headache and cough. These symptoms last five to ten days and usually resolve spontaneously. Bedrest is the key to quick recovery and avoids spreading the virus to others.

Mild pain relievers such as Advil, Aleve or Tylenol can help with the body aches, headache and sore throat. Advil and Aleve can be harsh on the stomach so should always be taken with food. Tylenol is gentler on the stomach and can also help with aches, pains and fever.

Expectorants like Guaifenesin and Glyceryl Guaiacolate thin mucous in the nose, throat, sinuses, and chest. Decongestants work in the nose, ears, and sinuses but not in the chest. They also can cause an increase in heart rate and blood pressure and produce sleeplessness in some cases.

Individuals with persistent fever, unusually difficult or painful breathing, worsening symptoms or failure to improve should seek medical attention.

URINARY INFECTIONS – Urinary infections are those that occur in the bladder and/or kidneys. When normal bacterial colony levels increase in the urine, signs and symptoms of infections can begin. If we drink an adequate amount of water and urinate every two to four hours, these bacterial levels normally stay below critical levels. However, if urine is held for too long, or if not enough water is consumed, urine flows slowly. This stagnation can produce infection. In addition, a congenital (from birth) condition of narrowing of the tubes that drain the bladder and/or kidneys can be present. This also can produce stagnation of urine that can lead to infection.

Most urinary infections occur in the bladder. They are characterized by frequent, small and painful urination. An urgency to urinate producing little results is often experienced. An odor or cloudiness may also be present in the urine. Symptoms will improve with "forcing" fluids, but a short course of antibiotics is recommended to treat the infection.

Unrecognized or untreated bladder infections can ascend into the kidney up the ureter tube causing a much more serious condition. Kidney infections may be associated with flank pain, fever, chills, body aches or vomiting. Stronger antibiotics are required and may need to be given intravenously with fluids. Seek medical attention promptly should the signs and symptoms of a kidney infection occur.