MEDICAL CONDITIONS
Introduction

**General Emergency Guidelines:**
*Remain Calm.*
*Never leave an ill or injured student.*
*Have someone call 9-1-1, parent, and principal.*

This Chapter will address the most commonly encountered ailments/illnesses in the school setting. If the illness/ailment is not covered in this chapter, it is recommended you use other references including the internet for information or contact the School Health Coordinator. Medical Management Plans, Emergency Action Plans (EAP), Individual Health Care Plans (IHCP), Health Condition Questionnaires for Parents and treatment logs can be found in this Chapter. Keep in mind that Principals/Administrators need to be informed of any unusual injuries/events/medical situations that may arise during the school year.

**SCHOOL HEALTH CARE PLANS**

The number of students with special health care needs in the education setting is increasing due to advances in medicine and increased access to public education as authorized by federal and state laws. Furthermore, some chronic conditions have a potential for developing into a medical emergency and require the development of an Emergency Action Plan (EAP). The EAP is a component of an Individual Health Care Plan (IHCP), not a substitute.

These care plans help promote consistency of care. In addition, the use of standardized language is being encouraged in the development of IHCPs to ease communication with other team members, to assist with data collection demonstrating the school nurse contribution to student health and education outcomes, and to examine linkages between interventions and outcomes.

A significant task for the school nurse is the determination of which students require an IHCP. Prioritization of students and their needs is essential and begins by identifying students whose health needs affect their daily functioning, that is, students who:

- Are medically fragile with multiple needs.
- Require lengthy health care or multiple health care contacts with the nurse or unlicensed assistive personnel during the school day.
- Have health needs that are addressed on a daily basis.
- Have health needs addressed as part of their IEP or 504 plan.

Next, prioritization is accomplished by focusing on health issues that affect safety and the student’s ability to learn or that the student, family, and/or teachers perceive as priorities. Ideally, the IHCP is developed collaboratively with the student, family, school staff, community, and other health providers, as appropriate. Ongoing evaluation assures a commitment to achieving measurable student outcomes. IHCPs are updated as appropriate and revised when significant changes occur in the student’s health status.
As a leader of the school health team, the registered nurse is responsible for first assessing the student’s health status; identifying health problems that may create a barrier to educational progress, safety or well-being; and developing a health care plan for management of the problems in the school setting. The use of current care standards in the development of the IHCP will help assure administrators, parents, and staff that the student is properly cared for. The IHCP can assist in many areas:

- Registered nurses utilize IHCPs to communicate nursing care needs to administrators, staff, students, and parents.
- The IHCP will create a safer process for delegation of nursing care, supporting continuity of care.
- The IHCP can serve as the health plan component of a 504 plan, and for students qualifying for special education; it can be incorporated into the Individual Education Plan when the health care issues are related to the educational needs of the student.
- The Registered nurse utilizes the IHCP to develop an emergency action plan (EAP) to inform school staff of the steps to take if an emergency arises related to the child’s chronic health condition.

LIST OF AILMENTS/ILLNESS COVERED IN THIS CHAPTER:
- Abdominal Pain/Injury
- Abrasions
- Attention Deficit Disorder (ADD)/ Attention Deficit Hyperactivity Disorder (ADHD)
- Acquired Immunodeficiency Syndrome (AIDS)/Human Immunodeficiency Virus (HIV)
- Anaphylaxis
- Asthma/Allergies
- Abscesses/Boils
- Bites-Animal/Insect/Human
- Bleeding Disorders (including hemophilia)
- Blisters
- Bone/Muscle/Joint Injuries
- Burns
- Cancer
- Cardiovascular Disorders
- Cerebral Palsy
- Chicken Pox
- Cutaneous Larva Migrans (Creeping Eruption)
- Cystic Fibrosis
- Dental Injuries
- Diarrhea
• Drug/ Alcohol Abuse
• Ear Problems
• Eating Disorders
• Eye Conditions/Stye/Conjunctivitis
• Fainting
• Fifth's Disease
• Foreign Body in Ear
• Hand-Foot-And-Mouth Disease
• Headache/ Migraine
• Head Injuries
• Heat Exhaustion/Stroke
• Herpes Simplex (cold sore)
• Hepatitis B (Hep B)
• Hyperventilation
• Hypertension
• Impetigo
• Infectious Hepatitis (Hep A)
• Influenza
• Juvenile Idiopathic Arthritis (previously called JRA)
• Kidney Disease
• Lacerations
• Measles
• Meningitis
• Molluscum Contagiosum
• Mononucleosis (Mono)
• Mumps
• Nosebleed
• Pinworms
• Rashes
• Ring Worm (Tinea Capitis)
• Rubella
• Scarlet Fever
• Shingles (see Chicken Pox)
• Seizure/Epilepsy
• Sickle Cell Anemia/Disease
• Sore Throat
• Spina Bifida
• Spinal Injuries
• Splinters
• Upper Respiratory Infections
• Vomiting
• Whooping Cough (Pertussis)

ABDOMINAL PAIN/INJURY
• Assess location of pain
• Ask if it is accompanied by nausea, vomiting or diarrhea.
• When did it start?
• Is it in response to being hit in the abdomen or a fall?
• Does the child have a fever?
• When did the child last eat?

If the child has vomiting, diarrhea, fever or if the abdominal pain is in response to an injury, call the parent. The child should be excluded until symptoms are gone and child is fever free for 24 hours. Abdominal injuries require closer supervision for a minimum of 24 hours depending on the injury.

ABRASIONS
• Cleanse wound with soap and water, pat dry.
• Bandage Lightly.
• Reassure student.
• Notify parent if abrasion is large and/or a tetanus booster is recommended.

ADHD
Attention deficit hyperactivity disorder causes a disruption in the individual’s ability to self-regulate and organize behaviors in response to environmental stimuli.

Causes:
• The exact cause is unknown. Genetics, traumatic brain injury, substance abuse during pregnancy, pre-maturity, complications at delivery, lead poisoning, seizure disorders and thyroid disorders are thought to be contributing factors.

Diagnosis:
• The diagnosis is set forth by the American Psychiatric Association. The student must demonstrate six or more symptoms of hyperactivity-impulsivity and six or more symptoms of inattention. The most important factor to determine diagnosis is impairment of function in either social, occupational, or academic settings.
**Signs and Symptoms:**
- Inability to focus
- Lack of self-control
- Increased risk-taking behavior
- Restlessness/Agitation

**Treatment:**
Behavior modification techniques such as tokens and praise may be used to elicit positive behavior. Consequences such as timeouts or loss of privileges should be utilized for negative behavior. The rules for earning tokens should be simple, positive and immediate. Minimizing distractions in a structured environment and positive reinforcements will improve the student’s ability to focus, minimizing symptoms.

Pharmacological-Drug therapy involves the use of stimulants such as Ritalin, Adderall, Dexedrine, Concerta, Strattera and Metadate to increase the student’s ability to focus. Side effects include headaches, stomach aches, anorexia, weight loss, dizziness, insomnia and nausea. Medications such as Clonidine and Guanfacine are also used to decrease hyperactivity.

**AIDS/HIV**
Parents are not obligated to inform the school of an HIV positive child. All exposures to blood/body fluids should be treated as potentially infectious and universal precautions should be adhered to. AIDS/HIV is not transmitted through casual contact (i.e. normal school activities).

**ALLERGIES - ANAPHYLAXIS**
Allergy is a common condition that occurs in about 20 percent of children in the United States. Anaphylaxis is a rapid, severe allergic response that occurs when a person is exposed to an allergen, an allergy-causing substance, to which he or she has been previously sensitized. It is brought on when the allergen enters the bloodstream, causing the release of chemicals throughout the body that try to protect it from the foreign substance.

**Causes:**
- In rare cases, the cause is called idiopathic, or unknown. However, anaphylaxis is most commonly triggered by:
  - Stings of bees, wasps, hornets, yellow jackets and fire ants.
  - Foods, including peanuts, milk, eggs, shellfish, whitefish, and other nuts, as well as food additives.
  - Medications, including certain antibiotics, seizure medications, muscle relaxants, aspirin and non-steroidal anti-inflammatory agents.
  - Exercise.

**Signs and Symptoms:**
- Itching or burning, hives, tingling/swelling (particularly of face, neck, tongue or lips), throat tightness, tightness in chest, difficulty swallowing, abdominal pain, vomiting, wheezing, breathing difficulty, dizziness, shock, pallor, sweating, rapid pulse, weakness and unconsciousness.
For more mild reactions:

- Observe the student constantly for difficulty breathing, skin reactions and/or signs of shock.
- Attempt to determine cause of reaction (bee sting, medication, food allergy, etc.). Check for Medic-Alert bracelet or necklace.
- Benadryl is sometimes ordered.

If the reaction is severe (respiratory distress, increasing anxiety, increasing swelling), call 9-1-1, the principal, and the parent. Students and adults with known allergies should have a completed Allergy Care Plan and Epi-pen in the health room or on their person. All personnel who have a close working relationship with that person should be trained in the use of the Epi-pen. Skills checklist should be completed documenting competence on Epi-pen administration.

If the child/adult has not had a prior reaction or the allergen is unknown and they are having symptoms, call 9-1-1.

**EPINEPHRINE INJECTION - EMERGENCY FIRST AID FOR ANAPHYLACTIC REACTION**

The Epinephrine Auto-Injector is a disposable drug delivery system with a concealed needle that is spring activated. The active ingredient is epinephrine, the treatment of choice in allergic emergencies (anaphylactic reactions) because it quickly constricts blood vessels, relaxes smooth muscles in the lungs to improve breathing, stimulates the heartbeat and works to reverse hives and swelling around the face and lips.

The Epinephrine Auto Injector is commonly prescribed for individuals who have had prior severe allergic reactions to certain foods or food additives, to medications, to insect stings or bites or to exercise. The most common insects that may cause anaphylaxis are the stingers (bees, hornets, yellow jackets and wasps) and the biters (deer flies, black flies, ants and yellow flies).

An emergency situation may occur anytime a hypersensitive student is exposed to a substance, sting, or bite to which the student is allergic. Allergic reactions (anaphylaxis, anaphylactic response) can be fatal within minutes. Hypersensitive students, identified for the school staff by their parents/guardian and physicians, require the availability of emergency medication. Epinephrine must be specifically prescribed for the student, just as any other prescription medication. Be aware of which students are authorized to carry their own Epinephrine Auto Injector as indicated by the physician on the Parental Authorization for Administration of Medication Form or Allergy Medical Management Plan.

Initial symptoms of anaphylaxis may represent a potentially fatal outcome and should be treated as a medical emergency, whether the symptoms occur gradually or suddenly. Even mild symptoms may intensify rapidly, triggering severe and possibly fatal shock. Usually, symptoms occur immediately following the sting or bite; death may occur within minutes. Symptoms, which often vary according to individual response, include the following:

- Sudden sense of uneasiness/anxiety
- Flushed skin
- Widespread hives
- Itching around the eyes
• Dry, hacking cough
• Constricted feeling in throat/chest
• Wheezing
• Facial edema or swelling (i.e. lips, tongue, and eyes)
• Abdominal pain
• Nausea or vomiting
• Difficulty breathing
• Hoarseness or thickened speech
• Confusion
• Feeling of impending doom

These symptoms may escalate swiftly to anaphylactic shock characterized by cyanosis (bluish skin), reduced blood pressure, collapse, incontinence, and unconsciousness. Epinephrine given after the onset of low blood pressure may not prevent death. If a hypersensitive student (who may experience a possible anaphylactic reaction) has been admitted to the school, immediately notify the school nurse who will obtain proper paperwork and notify appropriate personnel.

**EpiPen® Injection Procedure**

*Purpose:* To ensure immediate appropriate response to anaphylaxis when Epinephrine is available.

• **Action to be performed by:** Person trained by licensed healthcare professional.

• **Steps:**

1. Identify symptoms of anaphylaxis. Symptoms may include any of the following:
   a. Sudden sense of uneasiness/anxiety
   b. Flushed skin
   c. Widespread hives
   d. Itching around the eyes
   e. Dry, hacking cough
   f. Constricted feeling in throat/chest
   g. Wheezing
   h. Facial edema or swelling (i.e. lips, tongue and eyes)
   i. Dizziness
   j. Abdominal pain
   k. Nausea or vomiting
   l. Difficulty breathing or swallowing
   m. Hoarseness or thickened speech
   n. Confusion
 Feeling of impending doom

2. Have someone call 911. The effects of the injection begin to wear off after 10 to 20 minutes, so it is important to seek further medical assistance.

3. Activate the EpiPen® by removing the gray safety cap. The safety cap prevents accidental firing.

4. Hold the EpiPen® with black tip at a 90-degree angle against the fleshy portion of the outer thigh. EpiPen® should only be injected into the outer thigh, never into the buttocks or a vein.

5. Press the EpiPen® hard into the thigh until the auto-injector mechanism functions, and hold in place for several seconds for medication to be diffused. If there is no time, the EpiPen® may be given directly through clothing.

6. Remove EpiPen® and discard in sharps container.

7. Check Airway, Breathing, and Circulation and initiate steps of CPR as needed until arrival of the EMS.

8. Observe for shock and treat accordingly.


10. Call parent/guardian and notify principal.

**Some students may have a second dose of epinephrine ordered to be given 15 minutes after initial dose. See student specific prescribed medications for instructions.

NOTE: Medication is light sensitive. Store it in the original container in a darkened area. Advise parent/guardian immediately of need to replace medication when observing discoloration of medication or two weeks before the expiration date.

ASTHMA

Asthma is one of the most common chronic childhood illnesses, affecting more than 3 million children in the United States alone, according to the American Academy of Allergy Asthma & Immunology. Allergies and asthma are leading causes of school absenteeism. The impact of both allergies and asthma can be seen, not only in school absenteeism, but also in the lack of participation in athletic and exercise programs, and the amount of time spent taking medication during school hours. In some cases, allergies or asthma can precipitate a life-threatening crisis for a child.

These negative impacts do not need to happen. When allergies and asthma are controlled, students can maintain good performance in school and participate fully in physical activities, including sports. It takes the family, school personnel, and the physician working together as a team to develop a workable action plan to keep asthma and allergies well controlled. Any child diagnosed with severe or chronic allergies and/or asthma should have an IHCP and EAP completed and on file at their school.

Recognizing Environmental or Seasonal Allergies
Many children suffer unnecessarily from allergic diseases, which often go undiagnosed and untreated. The following clues may help school personnel recognize allergies in children at school:
• Children who rub their eyes or have itchy, red eyes.
• Children, who have a runny nose or wipe their nose constantly, sneeze frequently and have congestion.
• Children who scratch their skin frequently to relieve the itch.
• Children who cough or wheeze for a half hour every day after recess or physical education class may have symptoms of asthma.
• Children who develop gastrointestinal problems, hives or eczema.

It is important to remember that allergies and asthma are not contagious and cannot be spread from one child to another.

**General Information about Asthma**
Asthma is the most common serious chronic illness among children. Most children with asthma have symptoms that can be controlled by medicine.

**Asthma is characterized by:**
- Airway inflammation.
- Airway obstruction.
- Breathing difficulty is caused by changes in the air passages of the lungs:
  - Inside walls of the airways swell up.
  - Muscles in the walls of the airways tighten and constrict.
  - Swollen walls produce excess mucus, which clog the airways.
- Most children have continuous inflammation of the airways, but often an “attack” appears to be due to a specific trigger. Each child may react differently to asthma triggers. Factors that may trigger asthma include:
  - Respiratory infections, colds.
  - Allergic reactions to pollen, mold, animal dander, feathers, dust, food.
  - Vigorous exercise.
  - Exposure to cold air or sudden temperature changes.
  - Air pollution, fumes or strong odors.
  - Cigarette smoke.
  - Excitement, stress.

The child with asthma may feel “different” from his or her classmates (e.g., alone and scared). By treating the child with understanding and reassurance, you can do much to alleviate the fear of asthma.

**Signs and Symptoms of Asthma**
- Wheezing.
- Chest tightness.
- Coughing.
• Difficulty breathing and shortness of breath.

**More SERIOUS Signs Which Require Prompt Medical Attention**

• The child is breathless and may be unable to talk or may talk in one-to-two word phrases.
• The child’s neck muscles may tighten with each inhalation.
• The child’s lips and nail beds may have a grayish or bluish color.
• The child may exhibit chest retractions (chest skin sucked in).
• The child feels uncomfortable and is having trouble breathing, but you don’t hear wheezing sounds; this may still indicate extreme bronchial distress.

**Treatment for Asthma**

• Asthma treatment should be developed on an individual basis because each case can be different. An Asthma Medical Management Plan may be indicated.
• Medications are used to prevent episodes and to treat those that do occur.
• Avoiding environmental triggers.
• Encourage student to sit quietly and breathe slowly.

**MEDICATION BY METERED DOSE INHALER (MDI):**

*Purpose:* To deliver medication by aerosol inhaled directly into the lungs

*Action to be performed by:* personnel trained by health care professional or by student with supervision.

• **Steps:**
  1. Remove the cap. Connect the inhaler to the holding chamber if applicable.
  2. Hold the inhaler like the letter “L” with your thumb on the bottom and fingers on the top.
  3. Shake gently a minimum of 3 or 4 times.
  4. Sit, or preferably, stand up straight, and breathe out as much air as you can.
  5. Tip your head back slightly.
  6. Close your lips around the mouthpiece of your spacer, keeping spacer level (closed mouth method) ...OR... Hold the inhaler two to three fingers away from your mouth if you have no spacer (open-mouth method).
  7. Press down on the inhaler to release the medication and breathe in S L O W L Y
  8. Hold your breath for ten seconds if you can.
  9. Breathe out slowly with your lips almost together.
  10. Wait 1 minute (count 60 seconds on the clock).
  11. Repeat steps 3 - 9 if you’re supposed to take more than 1 puff.
  12. Be sure to rinse your mouth with water afterwards.
  13. MDI inhalers should be washed weekly to keep nozzle open.
Note: If you observe that the student is not using the inhaler properly, notify the school nurse.

**NEBULIZERS**

A nebulizer is a machine used to deliver medicine as a mist that is inhaled directly into the lungs. The nebulizer has a compressor or pump that pushes air through a tube and then through the medicine chamber to change the medicine into very small droplets. This is the mist that can be seen coming from the nebulizer.

Usually it is the student with asthma who will need a nebulizer medication. Several types of medication can be given by nebulizer, such as bronchodilators, anti-inflammatory drugs, or antibiotics. The medication may be ordered to be administered on a regular schedule each day or only for those times that the student is sick or is having an especially difficult time with breathing.

Parents of children with orders for nebulizer treatments must supply the nebulizer as well as the tubing and medication.

**MEDICATION BY NEBULIZER PROCEDURE**

*Purpose:* To deliver medication by a fine mist that is inhaled directly into the lungs.

*Action to be performed by:* Person trained by licensed healthcare professional.

- **Steps:**
  1. Wash hands.
  2. Position the student in a comfortably seated position.
  3. Place nebulizer on table or counter and plug into electrical outlet with ON/OFF switch in the OFF position.
  4. Place medication in the medicine chamber, following all medication administration steps in the School Health Manual. Securely close the lid to the medicine chamber.
  5. Attach a mouthpiece or facemask to the medicine chamber with an adapter.
  6. Connect one end of the tubing to the medicine chamber and the other end to the nipple on the nebulizer compressor.
  7. Turn on the compressor switch and watch for the medication mist to flow from the mouthpiece or mask.
  8. If a mask is used, place the mask over the student’s mouth and nose, securing it comfortably with the elastic strap that is attached.
  9. If a mouthpiece is used, have the student place their lips around the mouthpiece to make a seal.
  10. Instruct the student to breathe in and out through the mouth slowly and completely.
  11. Monitor the student for changes in respiratory rate or effort. Initiate emergency procedures if indicated. If student coughs excessively, stop treatment briefly until symptoms subside.
  12. Continue to have the nebulizer dispense the medication until all the medication has disappeared from the chamber. If the mist stops, but you can see more medicine
clinging to the sides of the medicine chamber, tap the side of the chamber. The mist should start again.


14. If symptoms have improved, the student may go back to class.

15. If the equipment is not to be sent home for cleaning before the next treatment, disassemble and clean the medicine chamber, adapter, mouthpiece or mask, and lid with soap and water; rinse thoroughly. Equipment may be soaked for 30 minutes in a solution of 3 parts water to 1 part white vinegar; rinse thoroughly. Lay all pieces on a towel; cover with a paper towel and air dry. Store in a clean plastic bag.

16. The tubing does not need to be cleaned since only air has been delivered through the tubing.

ABSCESS/BOILS

A boil or abscess is an infection of the skin and underlying soft tissues. Skin is red, raised with a yellow or white center from which pus may drain. A carbuncle is a cluster of boils that have formed a larger area of infection. A furuncle is an infected hair follicle with the formation of a boil. The infectious agent, Staphylococcus Aureus, is spread through drainage from lesions or the nasal discharge of an infected person. Incubation Period: 4 to 10 days. Period of Communicability: As long as the lesion continues to drain. May Return to School: Upon recommendation of the primary care provider (PCP). Lesions should be covered, especially if draining, or if child is constantly touching the lesion.

Staph Infections and MRSA: Suspected Staph infections should be referred to the student’s PCP for diagnosis and treatment. Refer to Fact Sheets for additional information. Students may return to school upon recommendation of PCP. Lesions should be covered. If condition does not improve, student should be referred to his PCP.

BITES - ANIMAL/HUMAN

• Animal Bite: Skin surface is broken by the teeth of an animal.
  1. Wear gloves.
  2. Wash with soap and water (preferably irrigating with running water 2 - 3 minutes if wound is large/dirty).
  3. Use direct pressure as needed for bleeding.
  4. Cover with nonstick bandage.
  5. Call parent and notify principal.
  6. Report incident to Duval County Animal Control Services at (904) 387-8846. Include as much information as available on the involved animal.
• Insect Bite:
  1. Examine wound for stinger.
  2. Observe for systemic reaction (as discussed in anaphylaxis).
  3. Apply cool pack/ice for 12 - 15 minutes.
  4. Apply calamine lotion if desired.
  5. Return to class if no additional symptoms.

• Human Bite: Skin is damaged or torn by a human mouth.
  1. Wear gloves.
  2. Wash with soap and water (irrigate under running water 2 - 3 minutes if not bleeding heavily).
  3. Cover with nonstick bandage.
  4. Notify principal and parent. Complete accident report and if adult staff is involved complete a worker's compensation report. Contact the bookkeeper at your school site and she will contact risk management at 904-387-8846.

BLEEDING DISORDERS
Bleeding disorders is a general term for a wide range of medical problems that lead to poor blood clotting and continuous bleeding. In people with bleeding disorders, clotting factors are missing or don't work as they should. This causes them to bleed for a longer time than those whose blood factor levels are normal. Bleeding problems can range from mild to severe.

Symptoms Include:
• Excessive bleeding
• Excessive bruising
• Easy bleeding
• Nose bleeds
• Abnormal menstrual bleeding

Causes:
Some bleeding disorders are present at birth and are caused by rare inherited disorders. Others are developed during certain illnesses or treatments. They can include hemophilia and other very rare blood disorders. There are many causes of bleeding disorders, including von Willebrand's disease, which is an inherited blood disorder, immune system-related diseases, such as allergic reactions to medications, or reactions to an infection; cancer, such as leukemia; liver disease, bone marrow problems, disseminated intravascular coagulation, antibodies that destroy blood clotting factors and medicines, such as aspirin, heparin, warfarin and drugs used to break up blood clots.

HEMOPHILIA
Hemophilia is a rare bleeding disorder that prevents the blood from clotting properly. They are deficient in factor VIII and IX. Hemophilia A, also known as factor VIII deficiency, is the cause of
about 80% of cases. Hemophilia B, which makes up the majority of the remaining 20% of cases, is a deficiency of factor IX. Patients are classified as mild, moderate or severe, based on the amount of factor present in the blood.

**Signs and Symptoms:**
Signs and symptoms of hemophilia vary, depending on severity of the factor deficiency and location of the bleeding. The most common type of bleeding in hemophilia involves muscles and joints.

**Treatment:**
Although hemophilia is a lifelong condition with no cure, it can be successfully managed with clotting factor replacement therapy. Bleeds must be treated promptly because prolonged bleeding can cause joint disorders. The accumulation of blood in the joint spaces can erode the smooth surfaces that allow limbs to bend easily. Kids with hemophilia can generally sense when a bleed has occurred. They often describe a tingly or bubbly sensation in a joint. It may also feel warm to the touch. Doctors also recommend splinting an affected joint for a short period of time and then applying ice to decrease inflammation, promote clotting and relieve pain. Acetaminophen (such as Tylenol) is the preferred pain reliever because many other over-the-counter pain medications contain aspirin or NSAIDs (non-steroidal anti-inflammatory drugs such as ibuprofen or naproxen sodium), which can affect blood platelets and lead to increased bleeding.

**Management:**
Certain bleeds require medical attention, including those injuries affecting:
- The central nervous system — any suspected trauma to the head, neck, or back
- The face, including the eyes and ears
- The throat or another portion of the airway
- The gastrointestinal tract (which might produce signs such as bright red or black blood in the child’s stool)
- The kidneys and urinary tract (if you find blood in the urine, this may require treatment and bed rest)
- The iliopsoas muscle in the trunk (which might produce signs that mimic a hip or abdominal bleed, including lower abdominal/groin or upper thigh pain, an inability to raise the leg on the affected side, and a feeling of relief when contracting or flexing that side of the body)
- The genital area
- The hips or shoulders (these can be complicated bleeds because they involve the rotator joints)
- Large muscle compartments, such as the thighs

**BLISTERS**
“Bubble” of fluid under the outer layer of skin, caused by friction, usually heals in 3 - 7 days.

**Intervention:**
- Use gloves.
- Wash gently with soap and water.
• DO NOT open the blister.
• Cover loosely with sterile, nonstick bandage.
• Send the student back to class.

BONE/MUSCLE/JOINT INJURIES
Injuries of the bones, muscles and joints may be fractures, dislocations or sprains/strains. Only a licensed healthcare provider can determine the type of injury. Typical signs and symptoms of these types of injuries can be: pain, swelling, redness, bruising and/or inability to move the extremity.

**Intervention (if no spinal injury is suspected):**
• Elevate the extremity, apply ice/cold pack.
• Assess for Range of Motion (ROM), pain, swelling, and pulse distal to injured area.
• If ice/elevation relieves discomfort, return child to class, but notify parent to check area.
• Notify Parent and/or 9-1-1 if movement causes increased pain, if obvious joint deformity, or if pulse not present. Notify principal or designee if injury is severe.
• Incident and/or Accident forms are to be completed as required.

BURNS
Burns are defined as the destruction of a layer or layers of skin caused by heat, cold, electricity, chemicals, light, friction or radiation. The deeper the burn, the more severe it is. Note: If student comes to school with unexplained burns (i.e. iron or cigarette or repeated health room visits for burns, consider the possibility of child abuse.

**Degrees of severity:**
• First Degree (superficial) - pain and redness with no blisters
• Second Degree (partial-thickness) - pain, redness and blisters
• Third Degree (full thickness) - red, raw, ash white, black, leathery with little or no pain

**Critical Burns:** Call 9-1-1 and notify Parent/Guardian and Principal for any of the following:
• Breathing difficulty
• Burns covering more than one body part
• Burns to the head, neck, hands, feet or genitals
• Burn resulting from chemical, explosion or electricity

**Intervention:**
• Stop the burn
• Extinguish flames
• Remove student from source of the burn

**Note:** if electrical injury, NEVER go near the student until you are sure the power is off**
Cool the burn:
• Use large amounts of cool water on burned area.
• DO NOT USE ICE!!! (It can cause bruising or freezing.)
• DO NOT BREAK BLISTERS!
• DO NOT use butter, Vaseline or other greasy ointments.
• Cover the burn:
  1. Loosely cover with dry, sterile dressing.
  2. Call Parent/Guardian and notify Principal.
  3. Strongly advise Parent/Guardian to seek medical treatment immediately.
  4. Provide the Parent/Guardian with the date of the student’s last tetanus booster.
  5. Accident report to be completed as applicable.

CANCER
Cancer is a disease in which abnormal cells grow in an uncontrollable manner. Management depends on the type of cancer, what stage the cancer is in, treatment and side effects of treatment. Many children with cancer have central venous catheters/ports and pain medications which the school personnel need to be aware of. Intravenous medications and cauterization site care are not approved to be done by health room personnel.

CARDIOVASCULAR DISORDERS
Cardiovascular diseases affecting children can be categorized as congenital or acquired. Some children will have physical limitations.

Congenital conditions are usually present at birth and involve structural abnormalities which cause blood flow or conduction problems.

Cause:
• May be unknown - 95%
• Genetic Defect
• Maternal environmental factors

Symptoms:
• Cyanosis
• Chest Pain
• Irregular heart beat/ murmurs
• Dizziness
• Cough
• Shortness of breath
• Exercise intolerance
Treatment:
- Medications
- Surgical correction
- Diet

Acquired conditions occur after birth and include conditions such as rheumatic heart disease and endocarditis.

Cause:
- Inflammatory process due to infections from streptococcus, staphylococcus aureus, and candida albicans.

Treatment:
- Antibiotics
- Anti-inflammatory drugs
- Pain meds

Symptoms:
- Fever
- Headaches
- Weight loss
- Murmurs
- Polyarthritis
- Rash on the chest and upper extremities

CEREBRAL PALSY
Cerebral palsy is a neurological disorder that appears in infancy or early childhood. It is characterized by a lack of muscle coordination when performing voluntary movements (ataxia); stiff or tight muscles and exaggerated reflexes (spasticity); altered muscle tones (too stiff or too loose); altered gait (toe walking, “scissored” gait, dragging one leg or foot). It is caused by abnormalities in parts of the brain that control muscle movement. These factors include genetics, premature birth or low birth weight, maternal health issues in pregnancy, meningitis, and encephalitis or head injury.

CHICKENPOX (VARICELLA)

What causes chickenpox?
Chickenpox is caused by the varicella-zoster virus.

How does chickenpox spread?
Chickenpox spreads from person to person by direct contact or through the air by coughing or sneezing. It is highly contagious. It can also be spread through direct contact with the fluid from
a blister of a person infected with chickenpox, or from direct contact with a sore from a person with shingles.

**How long does it take to show signs of chickenpox after being exposed?**
It takes from 10 - 21 days to develop symptoms after being exposed to a person infected with chickenpox. The usual time period is 14 - 16 days.

**What are the symptoms of chickenpox?**
The most common symptoms of chickenpox are rash, fever, coughing, fussiness, headache and loss of appetite. The rash usually develops on the scalp and body, and then spreads to the face, arms and legs. The rash usually forms 200 - 500 itchy blisters in several successive crops. The illness lasts about 5 - 10 days.

**How long is a person with chickenpox contagious?**
Patients with chickenpox are contagious for 1 - 2 days before the rash appears and continue to be contagious until all the blisters are crusted over (usually 6 - 8 days). Students can return to school after all the lesions have dried up.

**Is there a treatment for chickenpox?**
Most cases of chickenpox in otherwise healthy children are treated with bed rest, fluids and control of fever. Children with chickenpox should NOT receive aspirin because of possible subsequent risk of Reye’s syndrome. Acetaminophen may be given for fever control. Chickenpox may be treated with an antiviral drug in serious cases, depending on the patient’s age and health, the extent of the infection, and the timing of the treatment.

**Can you get chickenpox more than once?**
Most people are immune to chickenpox after having the disease. However, second cases of chickenpox do occur. The frequency of second cases is not known with certainty, but this appears to be an uncommon event.

**How are chickenpox and shingles related?**
Both chickenpox and shingles are caused by the same virus. After a person has had chickenpox, the virus resides in the body permanently, but silently. About 20% of all people who have been infected with chickenpox later develop the disease known as herpes zoster, or shingles. Symptoms of shingles are pain, itching, blisters, and loss of feeling along a nerve. Most cases occur in persons older than 50, and the risk of developing shingles increases with age.

Vaccine for the Varicella-zoster virus is available. It is recommended for the following:
- All children younger than age 13 years (one dose at 12 - 15 months and a second dose at age 4 - 6 years);
- Everyone age 13 years and older who has never had chickenpox (two doses, given 4 - 8 weeks apart);
- Anyone missing a dose at the recommended times should get the shot at their next visit to their doctor or clinic.
What side effects have been reported with this vaccine?
Possible side effects are generally mild and include redness, stiffness and soreness at the injection site. Such localized reactions occur in about 20% of children immunized. A small percentage of people develop a mild rash, usually around the spot where the shot was given.

How effective is this vaccine?
Ninety-seven percent of children between age 12 months and 12 years develop immunity to the disease after one dose of vaccine. For older children and adults, an average of 78% developed immunity after one dose and 99% develop immunity after the recommended two doses. Although some vaccinated children (about 2%) will still get chickenpox, they generally will have a much milder form of the disease, with fewer blisters (typically fewer than 50), lower fever and a more rapid recovery. The vaccine almost always prevents severe disease. Getting the chickenpox vaccine is much safer than getting chickenpox disease.

Who should NOT receive the chickenpox vaccine?
People with weakened immune systems and those with life-threatening allergies to gelatin or the antibiotic neomycin should not receive this vaccine. Pregnant women should not receive this vaccine, as the possible effects on fetal development are unknown. However, non-pregnant women of childbearing age who have never had the disease may be immunized against chickenpox to avoid contracting the disease while pregnant.

Varicella is reportable to County Health Department.

CUTANEOUS LARVA MIGRANS: (Creeping Eruption)
Sometimes referred to as Creeping Eruption, this skin infection has characteristic corkscrew lesions. Dog and Cat hookworm larvae are the infectious agents. Disease is spread through contact with sandy soil contaminated with dog and cat feces. Larvae enter the skin and migrate for long periods forming corkscrew lesions (track) that itch intensely.

May Return To School: No exclusion from school is necessary after the initiation of anti-parasitic treatment.

CYSTIC FIBROSIS
Cystic fibrosis is a hereditary disease that affects mainly the lungs and digestive system. Thick mucus production, as well as a less competent immune system, results in frequent lung infections. Diminished secretion of pancreatic enzymes causes poor growth, fatty diarrhea, and deficiency in fat-soluble vitamins.

Diagnosis of Cystic Fibrosis may be confirmed if high levels of salt are found during a sweat test. There is no cure for Cystic Fibrosis and it is one of the most common life shortening childhood-onset inherited diseases. It is most common among Europeans and Ashkenazi Jews.

Management:
• Postural drainage
• Inhalation medications
• Antibiotics
• Supplemental digestive enzymes
• Low fat high protein diet.

Florida Statute 1002.20 provides for the carrying of Pancreatic Enzyme supplements in a school setting. Key provisions of this legislation include the following:
• Permits a student with pancreatic insufficiency or cystic fibrosis to carry and self-administer prescribed pancreatic enzyme supplement while in school, participating in school-sponsored activities, or in transit to or from school if the school has been provided with authorization from the student’s parent and prescribing practitioner;
• The State Board of Education, in cooperation with the Department of Health, shall adopt rules for the use of prescribed pancreatic enzyme supplements that shall include provisions to protect the safety of all students from the misuse or abuse of the supplements;
• A school district, county health department, public-private partner, and their employees and volunteers shall be indemnified (held harmless) by the parent of a student authorized to use prescribed pancreatic enzyme supplements for any and all liability with respect to the student’s use of the supplements.

DENTAL INJURIES

Knocked out tooth
Intervention:
• Save tooth and place in a cup of low fat milk, normal saline, tooth preservative, student’s saliva or water.
• Call Parent/Guardian and notify Principal. Emphasize to the parent the need to get to the dentist on an emergency basis to maximize the chances for successful re-implantation of the tooth.
• DO NOT touch root portion of the tooth.
• DO NOT attempt to clean tooth as this may interfere with the re-implantation process.
• Have the student rinse mouth with warm salt water, if desired.
• Accident and incident reports are to be completed as applicable.

Chipped/Broken tooth
Intervention:
• Save large fragments and see dentist immediately because break could extend down to the root of the tooth.
• Rinse mouth with warm water.
• Cover sharp edge of tooth with gauze to prevent laceration of tongue or cheek.
• Apply cold pack to face next to injured tooth to minimize swelling.
• Call Parent/Guardian and notify principal.
• Suggest that the Parent/Guardian get the student to the dentist as soon as possible.
DIARRHEA
Diarrhea is a condition associated with frequent watery stools and may be accompanied with vomiting and fever. It may be a symptom of infection, which can be caused by many different organisms. Antibiotics may also induce diarrhea due to changes in the normal flora of the intestinal tract.

Transmission:
The organisms are transmitted via the fecal oral route. Transmission of the infection to others can be prevented by thorough hand washing, especially before eating, after using the bathroom and changing diapers.

Intervention:
• Take the student’s temperature.
• Call Parent/Guardian.
• Disinfect all contaminated surfaces and instruct student to wash hands.
• Recommend the Parent/Guardian contact their licensed health care provider for instructions.
• Further persistent diarrhea, especially if accompanied by a fever or bloody stools, should be evaluated by a medical provider for possible infectious diarrhea (i.e. shigella, giardiasis, and salmonella).

May Return To School: The student should be excluded from school until the diarrhea has stopped for 24 hours.

DRUG OR ALCOHOL USE
If a school administrator asks the nurse to assess a student for intoxication or being under the influence of a controlled, illegal substance, the school nurse can only give general assessments. The only legal way of knowing is through drug testing of the urine or blood.

• Marijuana: causes increased blood pressure, pulse and temperature, red eyes, reduced coordination and concentration, dry mouth and laughing.
• Cocaine: causes increases temperature, blood pressure and heart rate, dilated pupils, and frequent sniffing.
• Hallucinogens (ecstasy, LSD): causes large dilated pupils, fatigue, difficulty concentrating, nausea, sweating, increased heart rate, anxiety, panic and aggression.
• Narcotics (Demerol, Codeine, and Morphine): causes pinpoint pupils, slow respirations, nausea, vomiting, drowsiness, euphoria, cold skin and needle tracks on arms and body.
• Stimulants (Speed, Crack, Crystal, and Ritalin like Meds): causes dilated pupils, increased heart rate, blood pressure and respirations, blurred vision, dizziness, anxiety, glossy eyes, inability to focus eyes, irritability, and insomnia.
• Depressants (Valium, Yellow Jackets): causes slowed breathing and heart rate, pinpoint pupils, mental confusion, drowsiness, droopy eyelids, staggering, slurred speech.
**EARACHE**

*Intervention:*
- Take temperature.
- Make student comfortable.
- Call Parent/Guardian.
- Recommend Parent/Guardian seek medical attention if discomfort persists, or if the child has a fever.

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**EATING DISORDERS**

*(ANOREXIA AND BULIMIA)*

**Bulimia** is a severe eating disorder. People with bulimia rapidly eat tremendous amounts of food and then purge themselves of the food by vomiting or other means.

**Anorexia Nervosa** is a compulsion to inflict self-starvation. People of all races can develop bulimia and anorexia, but the vast majority are white. This may reflect social-economic rather than racial, factors. The illnesses are not restricted to females nor to those with certain occupational or educational backgrounds. Left untreated, either disorder can become chronic and result in severe health damage or even death.

**Bulimia: Signs & Symptoms:**
- Recurrent episodes of binge eating or the rapid consumption of large amounts of food in a short period of time, usually less than two hours.
- During the eating binges, there is a feeling of total lack of control over the eating behavior.
- The individual regularly engages in either self-induced vomiting, use of laxatives, diuretics or strict dieting or fasting and vigorous exercising in order to prevent weight gain.
- Discoloration or staining of the teeth.
- Overly concerned and disturbed with perception of body weight.

Bulimia usually begins in conjunction with a diet. Once the binge and purge cycle becomes established, it can get out of control. Some bulimics may be somewhat underweight and a few may be obese, but most tend to maintain a nearly normal weight. In many cases the menstrual cycle becomes irregular. Sexual interest may diminish. Bulimics may exhibit impulsive behaviors such as shoplifting and alcohol and/or drug use. Many appear to be healthy and successful, even a perfectionist in everything they do. Actually, most bulimics have very low self-esteem and are often depressed.

**Anorexia Nervosa: Signs & Symptoms:**
- Refusal or inability to maintain body weight over a minimum normal weight (Deliberate self-starvation).
- Intense fear of gaining weight or becoming fat, despite being underweight.
- Disturbance in perception of body shape.
- In post-menarcheal females, absence of three (3) consecutive menstrual cycles.
Anorexia causes peculiar behaviors and bodily changes typical of any starvation victim. Some functions are often restored to normal once sufficient weight is regained. Meanwhile, the starving body tries to protect itself (especially the two main organs, the brain and heart) by slowing down or stopping less vital body processes. Menstruation ceases, often before weight loss becomes noticeable. Blood pressure and respiratory rate slow, thyroid function diminishes resulting in brittle hair and nails, dry skin. Slowed pulse rate, cold intolerance and constipation also develop. With depletion of fat, the body temperature is lowered. Soft hair called lanugo forms over the skin. Electrolyte imbalance can become so severe that irregular heart rhythm, heart failure, and decreased bone density occur. Other physical signs can include mild anemia, swelling of joints, reduced muscle mass, and lightheadedness.

Exactly what causes anorexia nervosa and bulimia is a puzzle for researchers. They are just beginning to uncover clues, and not all experts agree with all theories. One theory about anorexia and bulimia is that many females feel excessive pressure to be as thin as some “ideal” perceived by the media in magazines and on television. Some suggest that a certain biological factor linked to clinical depression may contribute to the development of anorexia and bulimia. In fact 50 – 75 % of anorexics and bulimics are prone to depression, as are many of their relatives. Anorexia and bulimia may be triggered by an inability to cope with a life situation, puberty, first sexual contact, ridicule over weight, and death of a loved one or separation from family.

Several approaches are usually used to treat both disorders, including motivating the patient, enlisting family support and providing nutritional counseling and psychotherapy. A realistic body-image concept is a pre-condition for recovery from anorexia nervosa. Considering the anorexic’s tenacious denial of being too thin or eating too little, convincing them that they need to gain weight is no small task. Bulimics usually cooperate with medical staff and may even seek treatment voluntarily. Behavior modification therapy and drug therapy may be used. Hospitalization may be required for patients who have life threatening complications or extreme psychological problems. If the patient’s life is not in danger, treatment for either disorder is usually on an outpatient basis. Treatment may take a year or more. Approximately 80% of patients with bulimia respond to antidepressant drug therapy within three to four weeks. For anorexics, however, it should be noted that the benefits of antidepressants must be regarded as tentative and that precautions should be taken to determine whether the patient’s undernourished body can handle the drugs.

Psychotherapy may be in many forms. In individual sessions, the patient explores attitudes about weight, food and body image. Then as she/he becomes aware of the problems in relating to others and dealing with stress, the attention is centered on feelings that they may have about self-esteem, guilt, anxiety, depression, or helplessness.

Behavior modification therapy focuses on eliminating self-defeating behaviors. Patients may improve their stress management by learning skills in relaxation, biofeedback and assertiveness. Family therapy is designed to improve overall family functioning.

Places to seek help in finding a therapist include the psychiatry department of a nearby medical school, local hospitals, family physician, church leader, county or state mental health or social services departments and private welfare agencies. Self-help or support groups are an adjunct to primary treatment.
EYE INJURIES/EYE INFECTION
Note: DO NOT allow student to rub eye. DO NOT stick any solid object (tweezers, finger etc.) in the eye to remove a foreign body. Wash hands before touching the student’s face or eye.

Intervention:
• Cuts and Puncture of Eye or Eyelid:
  1. Loosely bandage eye. Use a paper cup over injured eye if an object is protruding or when pressure on the eye is undesirable.
  2. DO NOT apply pressure.
• “Speck” in the eye:
  1. Encourage student to blink and tear.
  2. Gently pull lashes so that upper lid comes down and away from the eyeball.
  3. Have student look down. Release lid after 3 - 5 seconds.
  4. Gently pull lower lid down and away from eyeball. If object is seen and does NOT appear embedded, gently rinse with tap water or eye wash. If object cannot be removed after one or two attempts of the above methods, follow procedure for notifying parent.
• Chemicals in Eye:
  1. Tilt head with affected eye down, so that chemical does not trickle into other eye.
  2. Rinse face, eyelid and eye with cool tap water for at least 15 minutes. Let water run from the inner corner of the eye to the outer edge.
  4. Do not bandage.
  5. Do not stop irrigation until emergency personnel arrive.
• Trauma to Eye/Hematoma
  1. Check pupils for reaction to light, size and equality.
  2. Apply ice pack.
  3. Call 9-1-1 for any changes in level of consciousness.

STYE
A sty is a tiny abscess on the edge of the eyelid that may have slight redness.

Intervention:
• Call parent/guardian and inquire if they are aware of the problem and if any treatment has been initiated.
• Instruct student not to rub or touch the eyes.
• Teach student in proper hand washing techniques.
• May apply warm compress.
• Send student back to class.
• Call parent/guardian if discomfort persists.
CONJUNCTIVITIS (PINKEYE)
Conjunctivitis is an inflammation of the mucous membranes that line the eyelids and cover the white part of the eyeball. It is most often caused by a virus, but is occasionally caused by bacteria or allergies. With this inflammation, the white part of the eye becomes pink and the eye produces large amounts of tears and discharge. In the morning, discharge may make the eyelids stick together.

Transmission:
Organisms that cause conjunctivitis are transmitted by direct contact with discharge from the conjunctivae (mucous membranes that line the eyes) or upper respiratory tracts of infected people. The organisms are also transmitted from contaminated fingers, clothing, or other articles (e.g., shared eye makeup, washcloths, towels or paper towels). Children under 5 are most often affected. The incubation period is usually 24 to 72 hours.

Diagnosis:
Conjunctivitis is diagnosed by the typical appearance of the eye(s). However, it is often difficult to tell if the cause is bacterial or viral.

Treatment:
Parents of students who have symptoms of conjunctivitis and staff who have symptoms of conjunctivitis should be advised to contact their health care provider to decide if medication is needed.

Period of Communicability: Conjunctivitis is transmissible during the course of infection.

May Return To School: When asymptomatic or until antibiotic treatment has been ongoing for 24 hours.

FAINTING
Signs and symptoms:
Pale skin, sweating, dizziness, numb or tingling hands and feet, nausea and disturbance of vision.

Intervention:
• Assist student to a lying down position
• Loosen garments
• Maintain open airway
• If the student fell, try to determine if an injury occurred. If no history is available, do not move the child.
• Bathe face with cool wet cloth.
• Notify Parent/Guardian and Principal.
• If recovery or consciousness is not IMMEDIATE (2 - 3 minutes), notify Principal and call 9-1-1.
FIFTH DISEASE
Fifth disease is a viral illness which is also called “slapped cheek syndrome.” It is generally mild but may cause a mild fever and fatigue until the rash appears. The rash generally involves the flushed appearance of the cheeks and sometimes a lacy rash on arms, legs and/or trunk. It may or may not itch. In adults, the joints may ache for days or months. It is spread through direct contact with an infected person before that person develops the rash. Hand washing is effective in limiting the spread. Children may attend school if no fever and feeling well. Pregnant women who have been exposed to it should contact their obstetrician.

FOREIGN BODY IN EAR
Student complains of “something in my ear” usually no pain.

Intervention:
• DO NOT try to flush out object with water or oil (including earwax).
• DO NOT try to remove a foreign body unless it can be easily seen and grasped with finger. When in doubt, do not attempt to remove.
• Call Parent/Guardian and notify Principal.
• Recommend the Parent/Guardian seek immediate medical care.

HAND-FOOT-AND-MOUTH DISEASE

Signs and Symptoms:
Signs and symptoms include: fever, sores in mouth and rash on hands and feet. The fever is usually gone in 3 or 4 days. The mouth ulcers usually resolve in 7 days, but the rash on the hands and feet can last up to 10 days. This disease mainly occurs in children 6 months to 4 years of age.

Cause:
Enterovirus, especially Coxsackie A 16.

Incubation Period:
The time from contact to the development of signs and symptoms ranges from 3-6 days.

Transmission:
The illness is transmitted through respiratory droplets or direct contact with nasal or throat secretions of infected persons or fecal-oral route.

Treatment:
Parent/guardian should be advised to take a child with the above symptoms to a physician to be diagnosed.

Prevention:
Hand washing, as always, is important to prevent the spread of the virus with emphasis on hand washing after toileting. Proper cough etiquette should also be emphasized.

Complications:
The most frequent complication is dehydration from refusing fluids due to mouth ulcers.
School Action:
For re-entry to school: If rash is present, a physician statement of diagnosis and "not contagious" must accompany the student. Student is to remain at home until at least 24 hours after there is no longer a fever (without the use of a fever-reducing medicine).

HEADACHE
Intervention:
• Give no medication unless child has own supply and written parent permission.
• Check for fever (headaches are commonly associated with fevers).
• Determine contributing factors: lack of water, food or sleep, vision problems, cold/sinus problems or injury to head.
• Drink large glass/cup of water.
• Student may rest with a cool cloth or ice pack on forehead.
• Call the Parent/Guardian if the student is too ill to return to class.
• Refer to physician if child has chronic headaches.

Some indications that a headache may be more serious are: frequent recurrences, loss of consciousness, vomiting (especially in the absence of fever or when associated with a history of injury), bizarre or unusual behavior, neck stiffness, pain and fever. Neck stiffness associated with pain and difficulty in extending head up to the ceiling and down to the chest and fever, may suggest meningitis and requires immediate medical care. Chronic headaches may also occur with visual changes and eye strain. Nurse should check vision if headaches are chronic.

HEADACHES (MIGRAINES)
Migraines are a neurological condition causing blood flow changes in the brain resulting in a throbbing pain in the head. Triggers such as foods, environment and hormones can cause overreaction of the blood vessels in the brain. Migraine headaches are often accompanied by extreme sensitivity to light and sound causing nausea, vomiting, fatigue, dizziness, and vision problems. Sinus problems, dental problems, heat, trauma, hypertension, eye strain, and brain tumors can also be predisposing factors in causing migraines. Drug therapy, biofeedback, and removal of triggers are the most common methods of preventing and controlling migraines.

HEAD INJURY
Intervention:
• Determine the cause of the injury and whether or not there might be a neck injury.
• If there is a suspected neck injury:
  1. DO NOT move the student.
  2. Arrange rolled up blankets or clothing on both sides of trunk, head, and neck for immobilization.
  3. Call 9-1-1.
  4. If CPR is necessary, the lower jaw should be pulled forward gently to open airway. The head tilt should be minimal and CPR MUST be performed by a TRAINED individual.
• Determine the level of consciousness: awake and alert, dazed, semi-conscious or unconscious.

• Observe unconscious student for breathing and any other body injuries. If choking is a concern, gently roll the student onto one side, turning all body parts at one time while supporting the student’s neck and head.

• For bleeding, gently hold gauze over wound. Apply ice packs to bruises.

• Notify Parent/Guardian and Principal. Advise immediate medical attention or call 9-1-1 for any student who has:
  1. Lost consciousness, even if consciousness is regained.
  2. Vomiting following a blow to the head.
  3. Inability to move a limb or limbs.
  4. Oozing of blood or watery fluid from ears or nose.
  5. Severe headache lasting longer than one hour.
  6. Sleepiness or dazed demeanor following a blow to the head.
  7. Unequal pupils.
  8. Pale skin color that does not return to normal in a short time.

HEAT EXHAUSTION/STROKE
Heat exhaustion usually results from exercising in a warm environment. Individuals with a chronic illness (diabetes, cystic fibrosis, severe asthma, etc.), obese individuals, and the very young or elderly are especially susceptible.

Prevention involves increased intake of fluids on hot days, especially if heavy exercise is planned; gradual acclimatization (such as slowly working up to a full exercise schedule over a period of days during hot weather); and short “rest periods” in an air-conditioned atmosphere when discomfort is obvious.

**Signs and symptoms:**
perspiration, dizziness, nausea, faintness, headache, cool and pale skin, rapid pulse and breathing.

**Intervention:**
• Have student lie down in cool or shaded area or move to air-conditioned environment if available.
• Loosen clothing. Give plenty of fluids if student can drink and is not vomiting or dazed. Cool (not cold) liquids
• Take student’s temperature (never take an oral temperature if the student is not fully alert). If the temperature is greater than 101°F, cool the student with a sponge or cloth soaked with cool water. Observe him/her closely and seek medical attention.
• Call 9-1-1 or seek other IMMEDIATE medical help if ANY of the following occur (signs of a HEAT STROKE):
  1. Rapid rise in body temperature, with hot and dry skin
2. Loss of consciousness/shock
3. Seizure
   • AS SOON AS POSSIBLE, notify the principal and parent

HEPATITIS B

**Signs and Symptoms:**
Gradually developing loss of appetite, abdominal discomfort, nausea, and vomiting. Sometimes joint pain and rash. Often jaundice (yellowish tint of eyes and skin) appears later. Fever may or may not be present. Seriousness of illness varies.

**Cause:**
Hepatitis B virus (HBV)

**Incubation Period:**
Usually 45-180 days, average 60-90 days.

**Transmission:**
- The virus is passed either directly from those who are already infected or indirectly from their body fluids. The virus can live on a surface for up to 30 days.
- The most common ways of getting the disease are:
  1. Through needle stick or needle sharing.
  2. Through breaks in the skin by way of cuts or scrapes and exposure to blood or other body fluids. Through exposure to blood or other body fluids via the eyes or mouth.
  3. Through sexual contact.
  4. Through body piercing or tattooing.

**Treatment:**
Studies with antiviral drugs are in progress.

**Complications:**
Acute hepatic necrosis (liver tissue death), cirrhosis of the liver, liver cancer, chronic hepatitis, with or without symptoms, or death.

**Immunization:**
Hepatitis B vaccine is routine for infants and adolescents and is also indicated for persons with high risk of exposure to hepatitis. Immunoglobulin (IG or HBig) is used to immunize known contacts of persons with hepatitis.

**School Action:**
Utilize standard precautions in handling body fluids and items contaminated with body fluids. All known or suspected cases should be reported immediately to the school RN and the School Health office (904-253-1580). Emphasize good personal hygiene, particularly hand washing, to all students and staff members.
HERPES SIMPLEX (Fever blisters)
Virus is spread by direct contact with lesions of an infected person.

*Incubation Period:* 2 to 12 days.

*Period of Communicability:* Generally 2 weeks, but may be as long as 7 weeks.

**May Return To School:** Students with herpes simplex should not be excluded from school.

**HYPERVENTILATION**
Abnormally prolonged and rapid breathing often associated with acute anxiety or emotional tension.

The student may complain of one or more of the following:
- Pounding heart
- Dizziness
- Tingling sensation in lips and extremities
- Stomach discomfort
- Sensation of smothering

Health room personnel may notice an unsteadiness, decreased alertness and/or fainting.

**Intervention:**
- Allow the student to sit in a quiet place.
- Reassure student. Make direct eye contact and speak clearly and slowly. Stay with the student.
- Have the student focus on slowing his/her breathing. Have student do the following exercise:
  1. Take slow deep breaths through the nose counting to four while inhaling.
  2. Exhale slowly through closed lips (like blowing through a straw) to a count of four.
- If the breathing exercise does not help, it may be helpful to have the student breathe into cupped hands over face or into a paper bag.
- If symptoms continue for more than several minutes or student passes out, call 9-1-1.
- Notify the Parent/Guardian and the Principal.

**HYPERTENSION**
Hypertension in children (and adults) has risen significantly over the past two decades. The increase is thought to be linked to increased weights, diets high in fat and cholesterol and sedentary lifestyles. Hypertension increases the risk of developing type-2 diabetes, stroke, and heart disease. Two types of hypertension exist: essential (no identifiable cause) and secondary (due to another disorder). Most causes in children are due to other diseases, but essential hypertension is on the rise. Few symptoms are apparent but over time the elevated blood pressure may cause frequent headaches, dizziness, visual disturbances and even seizures.
Treatment may include pharmacologic and non-pharmacologic treatments including dietary management and an exercise program.

Remember, when checking a student’s blood pressure, using the correct size BP cuff is very important.

**New Blood Pressure Guidelines**

In 2003, the National Heart, Lung and Blood Institute revised the blood pressure guidelines.

The following guidelines are observed for adults:

<table>
<thead>
<tr>
<th>Category</th>
<th>Systolic (mm Hg)</th>
<th>Diastolic (mm Hg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal blood pressure:</td>
<td>&lt; 120 AND</td>
<td>&lt; 80</td>
</tr>
<tr>
<td>Pre-hypertension:</td>
<td>120-139 OR</td>
<td>80-89</td>
</tr>
<tr>
<td>Stage 1 hypertension:</td>
<td>140-159 OR</td>
<td>90-99</td>
</tr>
<tr>
<td>Stage 2 hypertension:</td>
<td>&gt; 160 OR</td>
<td>&gt; 100</td>
</tr>
</tbody>
</table>

Adults whose readings fall in the “pre-hypertensive” range are instructed to make appropriate lifestyle changes. In addition, many doctors recommend conducting a sleep history due to the association of high blood pressure and “sleep apnea.” Adults with stage 1 and stage 2 hypertension frequently are treated with medications AND lifestyle modifications.

**The following guidelines are observed for children:**

**Pre-hypertension:** blood pressures between the 90th and 95th percentiles for age/sex/height.

**Hypertension:** blood pressures beyond the 95th percentile for age/sex/height. Children whose BP readings consistently fall in the “pre-hypertensive” range are encouraged to make lifestyle changes – like adults with pre-hypertension. In children, medication is reserved for those whose blood pressure remains elevated despite modifications in lifestyle. In children, BP guidelines are based on sex, age, and height. Blood pressure normally rises with age in childhood. A child's sex, age, and height are used to determine age-, sex- and height-specific systolic and diastolic blood pressure percentiles. This approach provides information that lets researchers consider different levels of growth in evaluating blood pressure. It also demonstrates the blood pressure standards that are based on sex, age and height and allows a more precise classification of blood pressure according to body size. More importantly, the approach avoids misclassifying children at the extremes of normal growth.

To use the tables, the height percentile is determined from the standard growth charts. The child's measured systolic and diastolic blood pressure (BP) is compared with the numbers provided in the table (boys or girls) for age and height percentile. The child is normotensive if the BP is below the 90th percentile. If the child's BP (systolic or diastolic) is at or above the 95th percentile, the child may be hypertensive. BP measurements between the 90th and 95th percentiles are prehypertensive. In general, the goal of antihypertensive maintenance therapy is blood pressure below the 95th percentile for otherwise healthy children and below the 90th percentile for children with any other organ involvement.
IMPETIGO (Pus pimples, sand sores)
Impetigo is spread by contact with drainage from sore or nasal secretions.

**Incubation Period:** Variable and indefinite, commonly 4 to 10 days

**Period of Communicability:** While sores are draining.

**May Return To School:** Students with impetigo should be excluded from school for 24 hours after initiation of treatment.

INFECTIOUS HEPATITIS (Hepatitis A)

**Signs and Symptoms:**
Fever, loss of appetite, vomiting, abdominal discomfort, indefinite feeling of being ill. Dark urine (coffee color) with light stools may be noticed. Yellow (jaundice) color of the skin and the whites of the eyes follow this in a few days. Severity increases with age. Children are more apt to have mild cases, frequently without jaundice.

**Cause:**
Hepatitis virus, Type A

**Incubation Period:**
Time from contact until the development of signs and symptoms 15-50 days, average of 28-30 days.

**Transmission:**
The virus is present in intestinal contents of infected persons and is passed in bowel movements. Where sanitation is poor, the virus can be transferred from sewage to drinking water, milk, vegetables, and seafood. Close person-to-person contact, the use of contaminated articles, and failing to wash hands thoroughly after handling contaminated objects can be sources of transmission. Person becomes infectious to others approximately two weeks before jaundice appears and remains infectious for about one week following evidence of jaundice.

**Treatment:**
A physician should see all cases of suspected hepatitis. Severity of cases can vary from illness of 1 to 2 weeks to an occasionally disabling disease of several months. Bed rest and careful observation are recommended until signs and symptoms have subsided.

**Complications:**
Severity tends to increase with age, but complete recovery is the rule.

**Immunization:**
There is a vaccine against Type A Hepatitis. Close contacts of confirmed hepatitis cases such as household members, persons exposed in day care centers or other group living situations, or persons known to be exposed to contaminated food or water should receive immune globulin as soon after exposure as possible. Immune globulin provides protection for about two months.

**Prevention:**
It is better to avoid this disease by good personal and household hygiene, sanitary disposal of body wastes, training children in good toilet habits and HANDWASHING.

**School Action:**
All known or suspected cases should be reported immediately to the school RN and the School Health office (904-253-1580). Emphasize good personal hygiene, particularly hand washing, to all students and staff members.

**INFLUENZA**
Influenza (commonly referred to as the “flu”) is a viral disease of the respiratory tract. There are two main types of influenza virus: type A and B and one uncommon type: type C. Type A includes different subtypes that commonly, but not always, change each year. Type A is usually the strain associated with widespread epidemics and pandemics. Type B is infrequently associated with regional or widespread epidemics. Type C has been associated with sporadic cases and minor localized outbreaks.

**Signs and Symptoms:**
Illness is usually characterized by the sudden onset of high fever or chills, headache, congestion, muscle aches, and a dry cough. The clinical picture may be indistinguishable from other respiratory tract infections such as the common cold, croup, bronchiolitis, viral pneumonia, etc. Nausea, vomiting, and/or diarrhea are rarely seen with influenza. Most people are ill with the “flu” for a week or less. Individuals with lung disease, heart disease, cancer, emphysema, diabetes, or those with weakened immune systems may have more serious illness and at times, may need to be hospitalized. Influenza occurs most often in the late fall and winter months.

**Transmission:**
The viruses that cause influenza are highly communicable - the organisms are readily transmitted from one individual to another through contact with droplets from the nose and throat of an infected person during coughing and sneezing, particularly in confined spaces such as school buses and small classrooms. The incubation period for influenza is short, usually 1 to 3 days. Individuals are most infectious in the 24 hours before the onset of symptoms and during the period of peak symptoms. The virus is spread in the secretions for up to 3 - 5 days after the onset of symptoms, but young children may pass the virus for more than 7 days. Individuals with weakened immune systems may have a more prolonged course of infection. The virus that causes influenza frequently changes, thus infection with the “flu” does not make a person immune.

**Diagnosis:**
Diagnosis is generally made presumptively based on symptoms. However, laboratory tests can be obtained to confirm this diagnosis.

**Treatment:**
While anti-viral drugs are available for the treatment of influenza, these drugs are ONLY an adjunct to control influenza and should not substitute for vaccination. The mainstay of influenza control and prevention is vaccination. In general, healthcare providers advise otherwise healthy individuals with influenza to drink plenty of fluids and get plenty of rest. Prescription antiviral medications are available and may be used by your healthcare provider to treat influenza.

**School Exclusion Guidelines**
Young children may transmit influenza virus for more than 7 days. Adults probably transmit the virus for 3 to 5 days. School exclusion is not indicated as long as a student or staff member feels well enough to attend school and is fever-free (without fever reducing medicines) for 24 hours.

High-risk populations should be vaccinated on an annual basis. If an outbreak of influenza is identified in the school or community, high-risk individuals should consult with their healthcare provider regarding possible prophylaxis.

**Reporting Requirements**
Influenza is not a reportable disease. Florida participates in the annual sentinel physician surveillance program of the Centers for Disease Control and Prevention. These physicians report "influenza-like" illnesses and take cultures for influenza typing.

**Notification Requirements**
None usually indicated unless an outbreak occurs in the school. If an outbreak of influenza occurs within the school population, the school nurse should notify the Department of Health in Duval County. The health department, in consultation with school administrators, will determine whether some or all parents should be notified.

**Prevention Guidelines**
Annual influenza vaccination is strongly recommended for any person > 6 months old who, because of age or underlying medical condition, is at increased risk for complications of influenza. The following groups are targeted to receive the influenza vaccine yearly:

**Persons at Increased Risk for Complications**
- Adults and children with chronic disorders of the pulmonary or cardiovascular systems, including asthma.
- Adults and children who required regular medical follow-up or hospitalization during the preceding year because of chronic diseases (including diabetes), kidney dysfunction, certain blood disorders called hemoglobinopathies (including sickle cell disease) or immunosuppression (persons on medications such as prednisone or being treated for HIV infection).
- Children and teenagers (age 6 months - 18 years) who are receiving long-term aspirin therapy
- Females who will be in the second or third trimester of pregnancy during the influenza season.
- All people 65 years of age and older
- Residents of nursing homes or other long-term chronic care facilities
- Persons who can transmit influenza to those at high risk, such as:
  1. Healthcare personnel
  2. Household contacts of high risk persons

**JUVENILE IDIOPATHIC ARTHRITIS**
Juvenile idiopathic arthritis, previously called Juvenile rheumatoid arthritis, is a general term for the most common types of arthritis in children. It is a long term disease resulting in joint pain and inflammation.

KIDNEY DISEASE
The kidneys are two bean-shaped organs located near the middle of the back, just below the rib cage. They are responsible for filtering water and waste products from the blood. There are multiple reasons for kidney failure in children, both acute and chronic. Some problems are resolved when treated. Others progress to chronic failure and may necessitate dialysis or transplant.

**Signs and Symptoms:**
Signs and symptoms are diverse and may include: fever, swelling especially of the feet, face, ankles and eyes, painful urination, changes in urine flow, hematuria, “accidents” in previously toilet trained children, high blood pressure and, especially in chronic disease, poor growth.

**Treatment:**
Children may be on various medications and may need to be out of school on a regular basis for dialysis.

LACERATION
A laceration is a wound that breaks the skin with either smooth or irregular edges and may bleed freely.

**Intervention:**
- Wear gloves.
- Control bleeding by applying direct pressure.
- Clean minor cuts with soap and water.
- Cover the wound with a sterile dressing.
- Recommend that parent/guardian contact licensed healthcare provider for further instruction if bleeding does not resolve with pressure or if sutures are indicated.
- Give the parent/guardian the date of the student’s last tetanus booster to take to the licensed healthcare provider.

MEASLES

**Signs and Symptoms:**
Fever, general malaise, conjunctivitis, runny nose, and a cough start three to four days before rash appears and continues for approximately 10 days. Rash appears first on face and neck and progresses down to involve trunk, arms, and legs. On the fifth day after the rash appears, it begins to fade. Some scaling of skin on trunk may occur.

**Cause:**
Measles (Rubeola) virus
Incubation Period:
Time from contact to development of disease is 7-18 days.

Transmission:
Airborne droplet or direct contact with nasal or throat secretions of infected persons.
Child is infectious from first signs of illness until 5 or 6 days after rash appears.

Treatment:
Physician or health department should be contacted so diagnosis can be confirmed.
Parent/guardian should seek assistance from physician in dealing with child's signs and symptoms.

Complications:
Most serious: encephalitis. Others: deafness, otitis media, croup, pneumonia, diarrhea.

Immunization:
Available. Should be administered starting at 12 months of age and again between 4-6 years of age. Usually given with rubella and mumps vaccines as MMR.

School Action:
All known or suspected cases should be reported immediately to the school RN and the School Health office (904-253-1580). Emphasize good personal hygiene, particularly hand washing, to all students and staff members.

MENINGITIS
Meningitis can be bacterial or viral. Bacterial meningitis is a serious infection of the spinal cord and brain. It has a rapid onset and causes severe illness in a short time with fever, headache and stiff neck, which are the most common symptoms. Viral Meningitis is usually less severe but may have similar symptoms of headache, fever or stiff neck.
Meningitis is spread through the exchange of respiratory and throat secretions through kissing and sharing eating utensils or drinks. People who are close contacts of those infected will be treated with antibiotics if the virus is bacterial meningitis. Good health habits including frequent hand washing and not eating or drinking after others including family, may help prevent the transmission of meningitis.

MOLLUSCUM CONTAGIOSUM

Signs and Symptoms:
Small, flesh colored bumps on the skin. The bumps are:
• Small
• May have a small indentation
• Are filled with white, waxy pus that contains the virus
• Can appear as a single bump, in groups, clusters or rows
• Most commonly found on chest, stomach, arms, legs, groin, genital area and face
**Cause:**
Molluscum contagiosum virus (MCV) which is a member of the poxvirus group

**Incubation Period:**
Incubation period: bumps usually appear 2-8 weeks after exposure

**Transmission:**
- Most commonly spread via direct skin to skin contact
- Touching objects that has virus on them (toys, clothing, towels and bedding)
- May be spread from scratching or rubbing bumps and touching other parts of body (Most often Molluscum Contagiosum bumps are spread to other areas of the affected child’s body, rather than to other children)

**Treatment:**
- In many cases, Molluscum Contagiosum resolves without treatment
- May be scraped, frozen (cryotherapy) or use of laser therapy by physician

**Complications:**
Molluscum Contagiosum generally cause no long-term problems.

**School Action:**
- Exclusion from school until diagnosis is confirmed by a healthcare professional.
- Bumps need to be covered

**Prevention**
- Wash hands
- Avoid touching bumps
- Cover bumps
- Don't share personal items

**MONONUCLEOSIS (MONO)**
Infectious mononucleosis sometimes called "mono" or "the kissing disease," is an infection usually caused by the Epstein-Barr virus (EBV), which may cause fever, sore throat, or swollen lymph nodes. It is spread through direct contact with the infected person’s saliva, such as by kissing, sharing a straw, a toothbrush, or an eating utensil.

**Signs and Symptoms:**
Symptoms usually begin to appear 4 to 7 weeks after infection with the virus. Signs that you may have mono include:
- Constant fatigue
- Fever
- Sore throat
- Loss of appetite
• Swollen lymph nodes (commonly called glands, located in your neck, underarms, and groin)
• Headaches
• Sore muscles
• Larger-than-normal liver or spleen
• Skin rash
• Abdominal pain

**Treatment:**
There is no cure for mono. But the good news is that even if you do nothing, the illness will go away by itself, usually in 3 to 4 weeks. The best treatment is to get plenty of rest, especially during the beginning stages of the illness when your symptoms are the worst.

For the fever and aching muscles, try taking acetaminophen or ibuprofen. Prevention includes good hygiene practices including not sharing saliva of infected people.

**May Return To School:** Children may attend school if afebrile and feeling well. Parents should consult with their doctor if the child is easily fatigued or symptoms are prolonged.

**MUMPS**

**Signs and Symptoms:**
Fever, swelling and tenderness of one or more of the salivary glands.

**Cause:**
Paramyxovirus

**Incubation Period:**
Time from contact until the development of signs and symptoms is usually 14-21 days.

**Transmission:**
By droplet (coughing, sneezing, etc.) and by direct contact with saliva of infected person. Most infectious 24-48 hours before illness begins and can continue as long as 9 days after swelling is first observed.

**Treatment:**
Parent/guardian should seek assistance from physicians in dealing with signs and symptoms. Bed rest with observation of signs and symptoms is recommended.

**Complications:**
Hearing impairment (rare)

**Immunization:**
Available. Should be administered starting at 12 months of age. Usually given with measles and rubella vaccines as MMR.

**School Action:**
All known or suspected cases should be reported immediately to the school RN and the School Health office (904-253-1580). Emphasize good personal hygiene, particularly hand washing, to all students and staff members.

**NOSEBLEED**

*Intervention:*
- Place student in sitting position with the head slightly forward.
- Observe Universal Precautions!
- Apply firm pressure on both sides of the nose for five minutes. (Student can do this by him/herself.)
- If necessary, apply cold pack to the nose. Provide tissues.
- Reassure student.
- Keep student quiet for 10 - 15 minutes after the bleeding stops.
- If bleeding continues, notify Parent/Guardian.

**NOTE:** Nosebleeds may be caused by a blow to the nose or the head. If fracture is suspected, refer for medical attention. Students with repeated nosebleeds should be referred for medical evaluation.

**PINWORMS**
Pinworm infection is caused by a small white worm that lives in the rectum of the infected person. While that person sleeps, the females lay their eggs on the skin surrounding the rectum. This causes severe itching and disturbed sleep. Pinworms are common in school age children and preschoolers. You can become infected by swallowing eggs from the contaminated surfaces, including fingers.

Pinworms are treated with prescription or over the counter drugs. A doctor should be consulted if you are uncertain. Treatment involves two doses of the medicine given 2 weeks apart.

*Prevention:*
- Changing and washing underwear daily and after each treatment
- Frequent hand washing
- Keeping nails trimmed short and discouraging nail biting

**May Return To School:** Children may return to school after first dose of treatment and scrubbing nails and bathing.

**RASHES (Dermatitis)**
A rash is an area of irritated or swollen skin. It might be red and itchy, bumpy, scaly, crusty, or blistered. Rashes are a symptom of many different medical conditions. Diseases, irritating substances, allergies and heredity can cause rashes. There are two types of dermatitis – contact and atopic.
• Contact dermatitis is a rash that results from either repeated contact with irritants or contact with allergy-producing substances, such as poison ivy.

• Atopic dermatitis, more commonly known as eczema, is a chronic itchy rash that tends to come and go.

Some rashes develop immediately. Others form over several days. Scratching the rash might take it longer to heal. The treatment for a rash usually depends on its cause. Options include moisturizers, lotions, baths, and cortisone creams that relieve swelling, and antihistamines, which relieve itching. If a rash is oozing or suspected to be infectious, the child should be evaluated by a medical provider who will authorize the child’s return to school, and whether the rash should be covered (i.e., shingles).

RINGWORM
Ringworm is a common fungal infection causing patches of red, scaly skin. The lesions are generally circular and red with a scaly border. Ringworm can affect people and pets and is generally transmitted by close contact. It is treated with over-the-counter anti-fungal creams (ask the pharmacist) or prescription medications, especially if on the scalp.

May Return To School: Children may attend school if ringworm is being treated. If lesions are wet or oozing, they should be covered. If there are scalp lesions, the child must be seen by a physician for proper treatment before returning to school.

RUBELLA (German measles or Three Day Measles)

Signs and Symptoms:
A young child may have no signs and symptoms until rash appears; then low grade fever and tiredness. Older children and adults usually have symptoms one to five days before rash, along with joint pain and swollen lymph nodes. Swollen lymph glands behind the ears and at top of the back of head appear 5-10 days before the rash.

Rash:
Rash is pink in color and begins on face and neck and progresses downward to trunk, arms and legs. Lesions are usually discrete and begin to fade within 48 hours.

Cause:
Rubella virus
Incubation Period
Time from contact to development of signs and symptoms 14 - 21 days.

Transmission:
Transmission is by droplet (sneezing, coughing, etc.) or contact with infected persons. Period of infectiousness is from about one week prior to appearance of rash to about five days after it appears. Highly communicable.

Treatment:
Physician or public health department should be contacted so diagnosis can be confirmed. Possible contacts with pregnant women should be identified and their immunity status determined. Children with rubella should be treated according to symptoms.

**Complications:**
There are seldom complications in young children. Rubella can cause birth defects in the offspring of women who acquire the disease during pregnancy (especially if acquired during the first trimester).

**Immunization:**
Available. Should be administered starting at 12 months of age. Usually given with measles and mumps vaccines as MMR.

**School Action:**
All known or suspected cases should be reported immediately to the school RN and the School Health office (904-253-1580). Emphasize good personal hygiene, particularly hand washing, to all students and staff members.

**SCARLET FEVER**
Scarlet fever is a rash that sometimes occurs in people who have strep throat.

**Symptoms:**
The rash starts as tiny red bumps on the chest and abdomen and spreads to the rest of the body. It looks like sunburn and feels like sandpaper. It generally lasts 2 - 5 days. Sometimes, after the rash is gone, the skin on the tips of the fingers and toes peel. The throat is very red and sore. There is generally a fever and swollen glands.

**Treatment:**
If the throat culture is strep positive, antibiotics will be prescribed.

**May Return To School:** Children may return to school 24 hours after starting the antibiotic. The child must be fever-free (without the use of fever reducing medicines) for 24 hours.

**SEIZURE/EPILEPSY**
Note: Epilepsy is a medical condition in which a person has the likelihood to suffer repeated convulsions. Such individuals require medical diagnosis, management, and follow-up. A child with epilepsy should have an Emergency Information Card and cumulative folder clearly marked.

**Signs and Symptoms:**
Rigidity and/or jerking of body muscles, possible loss of consciousness and possible loss of bowel or bladder control. After the seizure, there may be a period of profound relaxation, exhaustion, and stupor.

**Call 9-1-1 when:**
- Seizures last more than five minutes
- Seizures in a child who has never experienced one before
• Rapid sequence of seizures
• There is doubt as to whether or not the student is continuing to seize
• There is an excessive number of seizures

Treatment:
• Prevent student from hurting him/herself by removing nearby objects and breaking fall, if possible.
• If vomiting occurs, turn the student onto his/her side with face to the side to allow drainage.
• Observe breathing. Resuscitate if necessary. (The need for resuscitation would be extremely rare.)
• DO NOT restrain student.
• DO NOT place your fingers or any object in mouth.
• If student is a known epileptic patient and this is normal seizure pattern, allow him/her to rest following seizure. Notify Parent/Guardian and Principal. Student may be allowed to return to class if he/she feels well enough and parent gives permission. If this is an abnormally prolonged seizure and Diastat is required, the student will usually be sent home.
• If student is NOT known to be epileptic, notify principal and call parent to transport child immediately (providing child is alert and oriented). If parent does NOT respond in a timely manner or child is listless, call 9-1-1 IMMEDIATELY!!!!

DIASTAT ADMINISTRATION

Purpose:
Diastat is a gel formula of Valium intended for rectal use in patients with a seizure disorder, who, despite a daily anti-seizure regimen, have bouts of increased seizure activity. It should be administered by caregivers who are able to recognize the need for the medication based on individual orders. The caregiver should be trained and periodically monitored in the administration of the drug and the need to call 9-1-1 if it is administered, or as physician orders indicate.

Procedure:
• Turn person to their side.
• Assemble all equipment.
  1. Diastat
  2. Gloves
  3. Lubricant
• Explain procedure to patient.
• Put gloves on.
• Provide privacy by using curtain; forming a human barrier around the child; having someone hold up a sheet to screen the child.
• Push up with your thumb and remove the cap from the syringe. Be sure the seal pin is removed
with the cap.
• Lubricate the tip with the lubricant provided.
• Facing the patient, bend the upper leg forward and separate the buttocks.
• Gently insert the syringe.
• Count to 3 while pushing the plunger until it stops.
• Count to 3 again before removing the syringe.
• Count to 3 while holding buttocks together.
• Do not reuse the syringe.
• Monitor the child until 9-1-1 personnel and/or parents arrive.
• Unless ordered otherwise, a child who receives Diastat in school should be transported home or to a medical facility for further monitoring. The most common side effect is drowsiness.

**NOTE:** Diastat Acudial must be properly dialed and locked before use. This should be done before leaving the pharmacy so the correct dose is received. A display window on the syringe indicates the dose and a green band at the base of the tip indicates it is ready for use.

**SHINGLES (SEE CHICKEN POX)**

**SICKLE CELL ANEMIA/DISEASE**

Sickle cell anemia is an inherited blood disorder where the red blood cells become sickle shaped (like a crescent moon) rather than round like a doughnut. Sickle cells cannot move easily through blood vessels and thus tend to clump and reduce blood flow to limbs and organs. Sickled cells also die faster than normal red blood cells, and the body is unable to make enough to replace the dying ones, leading to anemia. Reduced oxygen flow increases sickling and cell destruction and the cycle continues.

**Symptoms:**
Acute symptoms (“crisis”) include pain associated with blocked vessels, fever, swollen hands and feet. Anemia causes pallor, weakness, limited exercise tolerance, delayed growth, and other development problems.

**SORE THROAT**

**Intervention:**
• Take temperature to rule out fever.
• Gargling with warm salt water (1/4 tsp. in 8 oz. of water) may relieve discomfort.
• May check throat for redness with tongue blade.

*If temperature is elevated:*
• Call Parent/Guardian.
If temperature is not elevated:
• Send student back to class.

SPINA BIFIDA
Spina Bifida is a failure of the spinal column to fuse, leaving the enclosed spinal cord unprotected. This may occur anywhere from the neck to the tailbone, the most common location is the lower part of the spine just above the buttocks. The skin and the spinal cord do not develop properly and a pouch is present where the bones fail to fuse.

Treatment:
A typical Spinal Bifida child of school age will already have had back surgery to repair the skin defect, a shunt in the brain to prevent or arrest hydrocephalus, and braces or crutches for walking.

Limits:
In a typical case, the child has no control over bowel or bladder function. Usually both legs are completely paralyzed. Unless there are associated abnormalities of the brain, children with Spinal Bifida are emotionally or intellectually normal. With proper treatment and training they should be able to attend school. They have excellent potential for learning. Most can be mainstreamed into regular classes. Because of subtle cerebral defects, learning problems and fine motor control disturbances may occur in some children.

Management:
• Bowel Care – due to lack of muscular control of the anal opening, fecal soiling is often seen. Changes of diapers or other appropriate clothing must be kept at the school.
• Bladder Care – due to lack of nerve supply to the bladder, the urge to urinate does not exist. The bladder fills till it can hold no more, and eventually urine dribbles out of the urethra and keeps the clothes or diapers constantly wet. Since the bladder never empties, the remaining urine and bladder wall may become infected. Management requires that the bladder be emptied periodically to prevent infection. Most urologists’ feel that intermittent catheterization every four to six hours is the preferred method. It is usually performed once a day at school at about noon. Self-cauterization is encouraged to ensure self-sufficiency.
  • Safety issues specific to child’s activities.

SPINAL INJURIES – BACK OR NECK
If spinal cord injury is suspected, DO NOT MOVE student!

Description:
Damage to the spinal cord that protects the nerves of the spine; most often caused from motor vehicle or bicycle accidents, sports injuries or falls involving bending, twisting or jolting of the body. The pain is usually made worse by pressure or movement and may radiate to arm or leg; may have weakness, numbness or inability to move arm or leg.

Intervention:
• Call 9-1-1.
• Do not move the student.
• Do not bend, twist, or rotate the neck or body of the student.

**If the Student is Unconscious:**
• Check Airway, Breathing, and Circulation and initiate the steps in CPR as needed (use jaw thrust, not head tilt/chin lift, to open airway) - **ALWAYS CALL 9-1-1 immediately.**

Unless CPR is necessary or the student must be moved from fire or other life-threatening situation, **DO NOT MOVE THE STUDENT.**

**NOTE:** If you must move the student, be sure to support the head, neck, and body as one unit.
1. Minimize movement of the head, neck, and spine in the position found. Place rolled up clothing, blankets, towels, etc. around the head and sides. If necessary to place student on his/her back for CPR, roll the head, neck and spine as one unit.
2. Call parent/guardian and notify principal.
3. Document date, time, nature of injury, and interventions.

**If the Student Regains Consciousness:**
• Instruct the student not to move until help arrives.
• Minimize movement. **DO NOT MOVE THE HEAD OR NECK.**
• Ask the student what happened and where it hurts.
• Call 9-1-1 for assessment.
• Call Parent/Guardian and notify Principal.

**SPLINTERS/PENCIL “LEAD”**
Pencils no longer contain lead, but graphite.

**Intervention:**

*If the splinter/pencil lead is protruding above the surface of the skin:*
• Remove by grasping with tweezers and pulling out.
• Wash with soap and water.
• Cover with sterile bandage.
• Return student to class.

*If the splinter/pencil lead is imbedded:*
• **DO NOT** try to remove.
• Cover with bandage.
• Call Parent/Guardian or advise student to show to parent
UPPER RESPIRATORY INFECTIONS
Children frequently come to the health room complaining of stuffy/runny nose, coughing, congestion and other symptoms of the common cold. Children who are ill are not productive and are not learning. They will likely also infect other children in the class since the virus is transmitted through direct contact with nasal/oral secretions.

**Intervention:**
- Check the temperature-if equal to or greater than 100.4° oral, contact parent. If coughing is persistent, and disruptive to the class, the child should go home.
- If child has no fever but appears ill with red eyes, nose, periodic cough, lack of energy; or frequent thick nasal discharge-especially if other than clear-the parent should be encouraged to take the child home.

VOMITING
Nausea and vomiting are symptoms of an underlying disease and not a specific illness. Nausea is the sensation that the stomach wants to empty itself, while vomiting (emesis) or throwing up, is the act of forcible emptying of the stomach. Vomiting is a violent act in which the stomach has to overcome the pressures that are normally in place to keep food and secretions within the stomach.

There are numerous causes of nausea and vomiting. These symptoms may be due to the following:
- acute gastritis due to infections, stomach flu, food poisoning, gastro esophageal reflux disease (GERD), peptic ulcer disease, or other stomach irritants from medications
- Central causes (signals from the brain) such as headaches, inner ear problems, head injuries, and heat related illnesses
- Atypical symptom of another disease: Some illnesses will cause nausea and vomiting, even though there is no direct involvement of the stomach or gastrointestinal tract such as heart attacks, sepsis, bulimia
- Side effects from medications and medical treatments
- Mechanical obstruction of the bowel
- Pregnancy

If the student is vomiting at school, the parent should be called and the child taken home. The child may return to school when symptoms are gone and child is fever free (without fever reducing medicines) for 24 hours.

WHOOPING COUGH (PERTUSSIS)
Pertussis, commonly called whooping cough, is a bacterial infection of the throat and lungs. The cough can last for weeks or months. Most children are vaccinated against Pertussis with 4 or 5 doses before starting school. A booster dose of vaccine is recommended as well, with the required 7th grade immunizations, or with an adult tetanus booster.
Pertussis is diagnosed with a nasopharyngeal culture. If someone is diagnosed, other family members, especially children under the age of 7 that have not been vaccinated, should be vaccinated and/or treated with antibiotics. **Pertussis is a reportable disease.**

**May Return To School:** Children may return to school after being on antibiotics for 7 days.