

UNIT I - STUDENT EMERGENCIES

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UNIT I - STUDENT EMERGENCIES

INTRODUCTION

Part of your responsibility as a school bus driver requires you to be prepared to act appropriately in emergency and crash situations. Your actions in these situations can mean the difference between life and death for one or more of the students on your bus. Contact your employer for a copy of your school district's guidelines and procedures for handling student emergencies.

CONTAINED IN THIS UNIT ARE ONLY GENERAL GUIDELINES. YOU MUST FOLLOW YOUR LOCAL SCHOOL DISTRICT PROCEDURES AND GUIDELINES REGARDING RECEIVING FIRST AID TRAINING AND ADMINISTERING FIRST AID ON YOUR SCHOOL BUS.

FIRST AID AND EMERGENCY CARE ARE ONLY TEMPORARY STEPS TAKEN UNTIL MORE ADVANCED TREATMENT CAN BE OBTAINED, EITHER AT THE SCENE OF AN INCIDENT OR AT A HOSPITAL.

You are not expected to be a paramedic; however, your company or district may require you to take First Aid courses, when available. Regardless, it is your responsibility to check the First-Aid Kit and Body Fluid Clean-Up Kit on a regular basis to assure it is present and sealed. Make sure to familiarize yourself with its contents and how each item is used. If you feel the medical emergency is beyond your knowledge, immediately call for emergency assistance.

First Aid is defined by the American National Red Cross as the immediate and temporary care given to the victims of crashes and sudden illness until the services of a physician can be obtained.

Emergency care is a process involving assessment, priority setting and continual reassessment. Other important aspects of emergency care include clearly describing what happened and knowing how to use the supplies and equipment used in performing this care.

Your top priority in the event of a crash or sudden illness is to keep the situation from getting worse until help arrives. You must perform only those emergency procedures for which you are properly trained, but remember your most important responsibility is to manage the overall scene until help arrives. In some situations, the time it takes for help to arrive may allow you to maintain the scene and provide emergency care to one or more injured persons. However, do not become so involved in specific problems you are unable to manage the entire scene. You need to learn procedures that will enable you to do the following:

- Control hazards at the scene;
- Evaluate injuries or illnesses;
- Enlist the help of others;
- Contact the emergency medical services system in your area;
- Maintain control of non-injured students during the crisis; and
- Control access to your students. Release students only to authorized persons. Keep students at the scene until evaluated.

While this unit provides a basic overview of emergency care procedures, local guidelines and procedures should always be followed.

MEDICAL LIABILITY

THE GOOD SAMARITAN ACT

Anyone who gives First Aid should be concerned about their liability when emergency care is necessary. The basic legal principle, which most directly applies to you as a bus driver is the Good Samaritan concept. In Pennsylvania and many other states, specific legislation has been passed to provide first-aiders with an exclusion from civil liability. A copy of Pennsylvania's Good Samaritan Act is reprinted here for your reference.

Figure I-1. Pennsylvania Good Samaritan Act

**PENNSYLVANIA GOOD SAMARITAN ACT
PUBLIC LAW 697, NUMBER 122**

Section 8332, Nonmedical good Samaritan civil immunity.

- a) General Rule – Any person who renders emergency care, first aid or rescue at the scene of an emergency, or moves the person receiving such care, first aid and rescue to a hospital or other place of medical care shall not be liable to such person for any civil damages as a result of any acts or omissions in rendering the emergency care, first aid or rescue, or moving the person receiving the same to a hospital or other place of medical care, except any acts or omissions intentionally designed to harm or any grossly negligent acts or omissions which result in harm to the person receiving the emergency care, first aid or rescue or being moved to a hospital other place of medical care.
- b) Exceptions –
 - 1) This section shall not relieve a driver of an ambulance or other emergency or rescue vehicle from liability arising from operation or use of such vehicle.
 - 2) In order for any person to receive the benefit of the exemption from civil liability provided for in subsection (a), he shall be, at the time of rendering the emergency care, first aid or rescue or moving the person receiving emergency care, first aid or rescue to a hospital or other place of medical care, the holder of a current certificate evidencing the successful completion of a course in first aid, advanced life saving or basic life support sponsored by the American National Red Cross or the American Heart Association or an equivalent course of instruction approved by the Department of Health in consultation with a technical committee of the Pennsylvania Emergency Health Services Council and must be performing techniques and employing procedures consistent with the nature and level of the training for which the certificate has been issued.

As you can see, the legal protection provided by Pennsylvania's Good Samaritan Act requires you to be currently certified in emergency care by the American National Red Cross, the American Heart Association or, in a similar course, approved by the Pennsylvania Department of Health.

This unit is intended only to present some basic guidelines concerning your actions in a medical emergency; **IT IS NOT A FIRST-AID COURSE.** To meet the criteria described in the Good Samaritan Act, you need to successfully complete a course approved by the Pennsylvania Department of Health in consultation with the Pennsylvania Emergency Health Services Council (PEHSC) for Layperson and Good Samaritan.

The following organizations offer approved courses:

- American Academy of Pediatrics
- American Red Cross
- American Safety and Health Institute
- Carey Program
- Coyne First Aid, Inc.
- EMS Safety Services
- Emergency First Care Program
- Hart Fitness Consulting
- Life Emergency Safety Training
- Medic First Aid
- National Safety Council of Western PA
- National Ski Patrol
- US Army, Department of Combat Medic
- Western PA Safety Council

It is recommended that you also refer to Pennsylvania Department of Health EMS Information Bulletin #051.

This bulletin may be accessed via the following link:

http://www.dsf.health.state.pa.us/health/lib/health/ems/bulletin/emsib_51_state_recognized_cpr_programs.pdf

FIRST AID PROCEDURES

This section describes priority setting and procedures in emergency situations.

SETTING PRIORITIES

First Aid and emergency care are techniques applied to one or more victims of a crash or illness. As a school bus driver, you cannot focus all of your attention solely on the ill or injured student(s). You must consider many other factors including:

- Hazards that could make the situation worse;
- Obtaining emergency medical assistance, if necessary;
- The seriousness of the injuries or illnesses;
- The safety of all healthy passengers; and
- Your own safety.

Hazard Control

In Unit H (Crash and Emergency Procedures), you learned about many situations, which could affect the health and safety of everyone on your bus. Prevention and prompt action are the key elements in keeping minor emergencies from developing into serious problems. Remember what you have already learned about safely parking and evacuating the bus (if there is no other option), fire control and safety in maneuvering the bus.

Specific Hazards in an Emergency

Be aware of these hazards:

- **Existing or Imminent Fire** – Few crashes result in fire or explosion, but you must always be alert to the presence of combustible fuel and ignition sources. Electrical fires may also start in the engine compartment due to faulty wiring or conditions other than a crash;
- **Hazardous Materials** – Identify any chemicals, vapors or other toxic substances, which present a danger to you and the others involved. Refer to Unit E on Preventive Maintenance, which identify a few of these materials found in the engine compartment;
- **Unsafe Site** – If an injury or crash occurs, be sure to park the bus in the safest position possible to avoid another crash. If at all possible, get the bus off of the roadway; and
- **Distractions** – If other circumstances don't prevent it, keep all passengers on the bus to make it easier to control them.

Obtaining Emergency Medical Assistance

Once hazards have been identified and controlled to the best extent, you need to get an idea of the nature of the crash, a rough estimate of how many students or others are injured, and the relative seriousness of their injuries. You should do this quickly and call for help, so it can get to the scene as soon as possible. Just about every school bus should be equipped with a two-way radio, and most likely there will be a cellular phone in your bus (your own or a student's). You may need to use these to call for ambulance, rescue, fire, or police services.

If you don't have one of these in your bus or if they have been damaged in a crash, or if you are in a "dead spot" with no service, calling for help can be more difficult. Who is going to make the call? Where will the call be made and what will be said? Since you should avoid leaving the bus and its passengers, you may need to identify a responsible bystander to make a call for assistance. Sometimes it's a good idea to send two bystanders to call the emergency services system. This increases the chance an accurate call will be made. Sometimes the second person may provide a calming influence.

It may be helpful to use your cell phone to call 911 for help so that emergency personnel can pinpoint your location using GPS. When calling for help, give specific instructions concerning the items below. The following is a priority listing:

1. The exact location or precise directions to your location;
2. The exact nature of the problem, illness or injury (to the extent possible);
3. The number of people injured; and
4. A description of the type of vehicles involved (in the case of a crash).

Use Responsible Helpers

It should be clear by now you have many areas of concern in an emergency situation. Adult bystanders and responsible students can be very important resources you may need to use. Knowing your passengers can be a big advantage, if you find yourself in a situation requiring immediate assistance. Make it a point to know the students on your bus. Selecting the right helper in an emergency is always difficult, but the more you know about your students, the better your chances are of making a good choice. **You should follow local School District procedures and guidelines when using student helpers in emergency situations. This is especially important when making the decision to send students to get assistance in an emergency. Do so only if local procedures and guidelines permit and the situation warrants it. Only in EXTREME EMERGENCIES should older responsible students be sent for help.**

Never send an elementary school student. You should also consider sending two students, rather than just one. This will increase their safety and security, they can support each other, and the chances of accurate information being passed on are increased. Ambulance crews often need the help of bystanders, so it is reasonable to think you might need help, too.

Treatment Priorities

Once help has been summoned, assess the injuries or illnesses of each student. **YOU MUST FOLLOW YOUR LOCAL SCHOOL DISTRICT PROCEDURES AND GUIDELINES REGARDING RECEIVING FIRST AID TRAINING AND ADMINISTERING FIRST AID ON YOUR SCHOOL BUS.** Keep in mind, provisions of the **Good Samaritan Act may not apply if you are not** certified through one of the previously mentioned courses.

You will find two situations where it is necessary to help set treatment priorities:

- When you have one student with more than one injury, the injury treated first may be important; and
- When you have more than one student injured, you must select the order in which you can begin to help everyone in need. You must be organized and do one thing at a time.

Performing Triage

In either case, you need to evaluate all injuries or illnesses quickly to determine where help is needed most. This process is called triage and is necessary in evaluating multiple problems in one individual or in evaluating multiple injured/ill persons. After a brief evaluation of each injury or illness, you can decide what to do first.

While performing triage, it is important you do not treat any injury until you have found all problems requiring help. If more than two or three students are injured, you should spend no more than 15 or 20 seconds in the evaluation of each injured person.

DON'T FORGET TO CALL YOUR SUPERVISOR/DISPATCHER TO REPORT ALL INCIDENTS. Use your best judgment when following local school district procedures and guidelines. In general, if injuries are minor, treat them yourself; when in doubt, call. If they are major, get emergency medical help. The following procedures should help you recognize issues and provide you with some basic procedures to follow. Remember, reporting incidents is important from a liability point of view as well.

TREATMENT PROCEDURES

Contact your employer for a copy of your school district's policies and procedures for handling student emergencies and your role in treatment. WHAT IS CONTAINED IN THE FOLLOWING SECTION ARE ONLY GENERAL GUIDELINES. YOU MUST FOLLOW YOUR LOCAL SCHOOL DISTRICT PROCEDURES AND GUIDELINES REGARDING RECEIVING FIRST AID TRAINING AND ADMINISTERING FIRST AID ON YOUR SCHOOL BUS.

Seizures

Seizures often are a symptom of a variety of central nervous system problems including epilepsy. There are several levels of seizure activity, but the type of seizure most important to you is when the student becomes unconscious. In addition to losing consciousness, the muscles of the person experiencing the seizure alternately flex and contract. This creates the jerking, sometimes violent, motion often described as "fits."

Your main concern is to maintain an open airway so the student can breathe and to protect the student from injuring themselves or others around them. If a student has a seizure, allow it to run its course and perform the following steps:

1. Lay the student down if they are not already on the floor;
2. Protect them from injury as much as possible by moving any possible objects the student could injure themselves on, and cushion their head;
3. Monitor their airway and position their body to permit the adequate exchange of air; and
4. Do not put fingers or other objects in the student's mouth during a seizure.

Most seizures are brief and may only last a minute or two. After the seizure is over, check their breathing if they are still unconscious.

When consciousness returns after a seizure, the student may be quite confused and disoriented. Be very considerate of their emotional state by providing as quiet and private a recovery environment as possible, given the circumstances. It is important to manage the other students around them.

After the seizure, always call your dispatcher. They will help determine whether further medical treatment is necessary. If the student has a history of seizures, they may be quite familiar with their own seizures and post seizure behaviors and may be able to help you.

Fractures

Any break or crack in a bone is defined as a fracture. While fractures may cause other complications like bleeding and shock, any fracture by itself is not a life threatening emergency. The location of a fractured bone may complicate other important body functions like breathing. When any part of the spine is fractured, there is a danger of paralysis as a result of associated spinal cord damage.

If you see any of the following signs or symptoms, suspect the underlying bone might be fractured:

- Pain at the site of injury;
- Pain on movement;
- Swelling;
- Discoloration; and
- Crooked or misaligned bones.

Remember, even if someone can walk on an injured ankle or move an injured arm, a bone may still be fractured. The only sure way to determine if a bone is fractured is to X-ray the area of injury and to have the X-ray and the injury evaluated by a physician.

If you suspect a fracture of a bone, which makes it difficult or impossible for the individual to move, always call your dispatcher and 911 for emergency medical help. Without proper training and splint materials, your options are limited until further help arrives.

Since fractures are not generally life threatening, you have time to take control of the situation and to keep it from worsening. The basic objective of fracture care is to prevent the movement of joints above and below a fracture site. In most cases, you don't need splint materials to accomplish this, as long as you do not have to move the injured person. If help is on the way and the injured person is in a safe location, there is no immediate threat to life and no reason to move them.

If there is great urgency to move an injured student, as in the case of a fire, drag them along the long axis of their body. Pull the student by their outstretched hands or shoulders. If possible, place the injured person on a coat or blanket to make dragging him or her easier.

Allergic Reaction: Bites and Stings

Bites and stings are treated as ingested poisons and can result in allergic reactions. Snakes, bees, spiders and wasps are some of the creatures that can bite or sting a student. These bites and stings can sometimes cause violent reactions in some students who may be allergic to them.

1. Signs and symptoms:

- Puncture marks;
- Anxiety;
- Pale, cool skin with progressive onset of sweating;
- Rapid, weak pulse;
- Rapid, shallow breathing or breathing difficulties;
- Difficulty swallowing and speaking;
- Blurred vision;
- Abdominal pain;
- Nausea and/or vomiting;
- Headache;
- Intense pain at site of bite; and
- Localized redness and swelling.

2. Care and treatment:

- Apply direct pressure over bitten area;
- Find out if the student has any allergies to stings or bites; and
- Use cold compress, if available, to reduce swelling.

Allergic Reaction: Anaphylactic Shock

There are many types of shock, caused by a variety of circumstances ranging from emotional crisis to massive blood loss. One of the most unusual and fast-acting types of shock is the type occurring after an extremely allergic reaction. This type of shock is called anaphylactic shock and is commonly caused by bee stings.

If a student experiences an allergic reaction of any kind, it may quickly turn into a life threatening emergency. Anaphylactic shock can cause, within minutes, swelling in the airway to a degree an individual will not be able to breathe. The only way this condition can be corrected is through medication. Many seriously allergic people always carry their own medication with them. If this medication is not present, you must do everything possible to see the allergic person immediately gets to an emergency department or to paramedics. A few minutes may mean the difference between life and death. Learn local procedures and guidelines regarding what to do in the case of allergic reactions.

One method of treating anaphylaxis is injection of epinephrine using an autoinjector. Each school district and employer should have their own procedures and guidelines on your role in the use of an autoinjector – if you don't know your district/employer's procedures and guidelines, ask. What you CAN do is the following:

- Know all appropriate emergency numbers to call and request an Advanced Life Support Unit, if a reaction occurs;
- Use those numbers as quickly as possible, if you have not been trained on the use of an autoinjector or it is not within your district's procedures and guidelines for drivers to use them;
- Consider having the food-allergic child sit near the driver;
- Enforce the "no food on the bus" policy;
- If you have received training, know which children carry an autoinjector and where they carry it; and
- Consider working with your school district to implement an epinephrine hand-off system. Some parents pass the epinephrine to the driver who gives it to the school nurse once the bus arrives at school. The process is reversed for the ride home in the afternoon. CAUTION NOTE: Due to the number of hand-offs and people involved in this process, there is a greater risk of leaving the epinephrine either at school or on the bus.

Anaphylactic shock is somewhat unusual as compared to most other shock conditions you may encounter. Most shock conditions are more gradual in their onset and should be anticipated in all injuries. Listen to your students, if they warn you of an onset of symptoms. By being aware shock may develop; you may be able to prevent it before you see clear signs or symptoms. In summary:

1. Signs and symptoms:

- Itching;
- Red, raised, blotchy skin (hives);
- Wheezing;
- Confusion;
- Weakness;
- Pale color;
- Unconsciousness;
- Unable to speak more than one or two words;
- Sitting straight up or with hands on knees;
- Gasping for breath;
- Pursing lips to breathe; and
- Using neck muscles to take breaths.

2. Care and treatment:

- Call your dispatcher and report the situation;
- Call 911 immediately; and
- If your district procedures and guidelines allow, you are qualified and you have received training administer epinephrine.

Asthma

Asthma is a respiratory condition in which the student suffers constricted passages in the lower airway and it becomes progressively more difficult to breathe. Asthma can be a life threatening condition that may develop suddenly, or over several days.

Students with asthma are subject to unexpected severe attacks. Minor respiratory infections such as colds, flu and seasonal changes can cause the condition to worsen.

1. Signs and symptoms:

- Pale, cool, clammy skin;
- Shortness of breath, using all the chest and diaphragm muscles to breathe;
- Wheezing-a high pitched raspy sound when breathing;
- Anxiety, exhaustion, a rapid or weak pulse; and
- Severe asthma attack-collapse, leading to eventual respiratory arrest.

2. Care and treatment:

- Call your dispatcher and report the situation;
- Sit the student comfortably upright;
- Be calm and reassuring;
- Assist the student with locating their inhaler and allow them to use inhaler, if they are able; and
- Know and follow your school district procedures and guidelines!

Bites

Bites from other children are one of the most common First-Aid problems on a bus. For care and treatment:

1. Clean bite with antiseptic wipe and place a band aid on the bite; and
2. Report biting incident to your supervisor.

External Bleeding

After a serious incident like a crash, there are several types of bleeding that can occur. External bleeding is associated with wounds caused by cutting, perforating or tearing the skin. Serious wounds involve damage to blood vessels.

1. Types of wounds:

- **An incision** – is the type of wound made by “slicing” with a sharp knife or sharp piece of metal;
- **A laceration** – is a deep wound with associated loss of tissue;
- **An abrasion** – is a wound where the skin layers have been scraped off;
- **Puncture sore** – wounds are perforations, and may be due to an object like a pencil; and
- **Amputation** – is the loss of a limb by trauma.

2. Care and treatment:

- Make sure you have called your dispatcher and emergency medical personnel for serious wounds;
- Use universal precautions to protect yourself from bloodborne pathogens;
- Apply pressure to the wound to stop bleeding by using a sterile bandage; and
- Raise and support the injured part above the level of the heart. Elevation of an injured limb forces the blood to flow to the heart and keeps the blood from pooling in the lower part of the affected limb.

Internal Bleeding

Internal bleeding can be visible or concealed, and may occur after a crash. If there is no evidence of bleeding, this can be very serious and medical attention is required immediately.

- Visible internal bleeding: Self evident;
- Bleeding in the lungs: Frothy, bright red blood coughed up by the student; and
- Bleeding in the stomach: May look like dark coffee grounds or red blood in vomit.

1. Signs and symptoms (if none of the above are present):

- Pale, cool, clammy skin;
- Thirst;
- Rapid, weak pulse;
- Rapid, shallow breathing;
- Guarding of the abdomen, in fetal position;
- Pain or discomfort;
- Nausea and/or vomiting; and
- Swelling.

2. Care and treatment:

- Get expert medical help.
- If you can, position the student on his/her back; elevate legs, if possible;
- Give nothing by mouth.

Choking

Younger children often put things in their mouth, which may result in choking. The first sign may be coughing. Coughing with an object in the airway will generally dislodge it. **If you have a student who is choking, do not slap them on the back.**

1. Signs and symptoms:

- Difficulty or absence of breathing;
- Inability to speak or cough;
- Agitation and distress – grabbing the throat and eventual collapse.

2. Care and treatment:

- Check mouth and clear any obstructions that may have come loose.
- Stand behind the student and wrap your arms around the student's waist.
- Make a fist with one hand.
- Place the thumb side of the fist against the student's abdomen in the midline and slightly above the navel.
- Grasp the fist with the other hand and press the fist into the student's abdomen with a quick upward thrust.
- Each new abdominal thrust should be a separate and distinct movement.
- Repeat thrusts until student expels the obstruction.

Dehydration

Dehydration is a condition caused by the loss of fluids from perspiration and prolonged exposure to heat and humidity. Sometimes a student may be dehydrated on your bus, especially in your afternoon runs when students are returning home and/or returning from field trips. When fluid loss exceeds input through drinking, dehydration occurs. Prolonged dehydration will lead to shock and could be fatal.

1. Signs and symptoms:

- Pale, cool, clammy skin;
- Rapid breathing;
- Profuse and prolonged sweating;
- Thirst;
- Loss of skin elasticity;
- Sunken eyes in children.

2. Care and treatment:

- Give cool water to drink, if available.

Diabetes

Diabetes is a condition caused by an imbalance of sugar or glucose in the blood. Because all human cells require sugars as food, the body takes in complex sugars in a normal diet. So the body's cells can use these sugars, the body, through an organ called the pancreas, secretes a protein hormone called insulin, which attaches to the sugars. This allows the cells to recognize the sugars as food and absorb the necessary glucose. Unfortunately, this condition is becoming more and more prevalent among school-aged children. Students with Type 1 diabetes and some students with Type 2 diabetes require insulin to survive. It is not expected that you check students' blood glucose levels or administer insulin or glucagon, but you may be able to recognize students for symptoms of high and low blood glucose, and assist the student in an emergency.

Understand and be aware that although hypoglycemia normally occurs at the end of the day, it may happen at the beginning of the day, if the student has not eaten breakfast.

1. Signs and Symptoms:

- Hot, dry skin;
- Smell of acetone (nail polish remover) on the breath;
- Drowsiness or change in mood;
- Unconsciousness, progressing to coma;
- Profuse sweating;
- Grayish skin color;
- Hunger;
- Confused or aggressive behavior;
- Rapid pulse;
- May appear drunk;
- Seizures.

2. Care and treatment:

- If conscious, give sweet drink, if available (avoid diet sodas).
- Repeat, if student responds.
- Assist with medication and encourage ingestion of food high in carbohydrates.
- **DO NOT** attempt to give an insulin injection.
- At the beginning of the school year, identify any students on the bus who have diabetes, if possible.
- Sometimes you will be provided a copy of the student's Quick Reference Emergency Plan, which a parent or school nurse may have. This can contain important treatment information that can help a student in distress. Keep it on the bus in a known, yet secure, place, and work with your school district to make sure substitute drivers know about the plan.
- Be aware of where the students with diabetes normally keep their supplies.
- Treat the student with diabetes the same as other students, except to respond to medical needs and perhaps allowing them to eat snacks on the bus.
- Provide input to the student's school health team when requested.
- Communicate with the parents, school nurse and/or trained diabetes personnel regarding any concerns about the student.
- Respect the student's confidentiality and right to privacy.

Heatstroke

Heatstroke should not be confused with sunstroke. Sunstroke is a common ailment suffered by those who remain in the sun too long. Heatstroke is potentially fatal. The body's temperature regulation center in the brain has been rendered inoperable, and the temperature continually rises, causing eventual brain damage. Be aware of this on your bus runs in warmer weather, especially in the afternoon.

1. Signs and symptoms:

- Flushed, hot, dry skin;
- The student has stopped sweating;
- Rapid pulse, gradually weakening;
- Irrational or aggressive behavior;
- Staggering;
- Fatigue;
- Visual disturbances, headache, vomiting; and
- Collapse and seizures.

2. Care and treatment:

- Give fluids and water, if the person is conscious.
- Cool the student as much as possible.

Hyperventilation

Hyperventilation can be stress related or deliberate over-breathing. By deliberately over-breathing, the student causes the blood's carbon dioxide level to fall, resulting in distressing symptoms. There have been incidents of students hyperventilating on purpose for the "rush." Be aware of this behavior, and put a stop to it.

1. Signs and symptoms:

- Rapid respirations;
- Rapid pulse;
- Shortness of breath;
- Pressure, tightness or pain across the chest;
- Anxiety;
- Blurred vision;
- Tingling in fingers and toes;
- Hand and finger spasms;
- Fainting.

2. Care and treatment:

- Reassurance;
- Remove the cause of anxiety, if possible;
- If the student has fainted, lay the student down with their legs elevated.

Nose Bleeds

When a student's nose bleeds, there are some immediate things you can do to stop the bleeding: Keep the trunk of the body so it is higher than the heart, tilt the head forward, and compress the nostril for five to 10 minutes.

Traumatic Brain Injury or Concussion

Traumatic brain injury is characterized as either closed head injury or open head injury. Open head injuries occur when the skull has been fractured or the tissue around the brain has been pierced. Closed head injuries or concussions, which can be harder to detect, do not pierce the tissue around the brain or fracture the skull. Closed head injuries or concussions generally occur from an impact to the head.

Traumatic brain injuries or concussions can result from a sudden jarring or impact within the bus, regardless of whether or not the student strikes their head. However, it is of particular concern if a student hits his or her head during the jarring or impact. Any time a student hits his or her head, traumatic brain injury or a

concussion may occur, such as in a crash, or if the bus has run over a curb or large rock, or has been on an extra bumpy road and has been violently jarred.

Depending on the severity of the injury, damage to the brain can be mild, moderate or severe. A key point is that a person suffering from traumatic brain injury may show no symptoms at all, but if symptoms are present, they can vary and may include headache, slurred speech, dilated pupils, hearing loss, seizures, paralysis, loss of consciousness, memory loss, coma, nausea or vomiting, dizziness, confusion and blurred vision.

If the bus you are driving has been impacted or intensely jarred, it is important to stop the bus in a position of safety, ask the students if anyone was hurt and if anyone hit their head during the incident. Any time a student indicates to you or a fellow student that they hit their head on the bus, call for medical assistance. Do not move the student or your bus -- unless you need to move your bus to a safer location -- to prevent possible further injury to the student, as traumatic brain injury, no matter how slight, could have serious, life-altering effects. It is extremely important not to ignore instances where a student has hit his or her head while on your bus.

REPORT ALL INCIDENTS

It is critical to report all medical problems, which occur on your bus to the proper authorities as dictated by local procedures and guidelines. Reporting incidents is important from a liability point of view because students may fail to tell the school nurse or their parents of problems requiring attention. Know your students and any pre-existing problems, which they might have so you may be better prepared to deal with them. Careful observation of your students may indicate the presence of medical problems of which you have not been informed. While many parents will inform you of their child's medical problems, others wish to keep such information confidential. Follow local procedures and guidelines when trying to obtain information about student medical conditions. When possible, inform substitute drivers of any medical problems of students on your route, but keep confidentiality in mind. Work with your supervisor regarding the release of information.

FIRST-AID EQUIPMENT

First-aid supplies and equipment are important in providing the best care possible. Remember to follow your local school district procedures and guidelines regarding administering first aid on your school bus.

FIRST-AID KIT

The First-Aid Kit on your bus should be removable and supplied with anything you might need in an emergency. The contents of your First-Aid Kit may vary according to local procedures and guidelines; however, current state regulations (Section 171.52 of Title 67) require that the First-Aid Kit on a school bus must contain at least 10 items including:

1. Two, 1-inch x 2 1/2-yard rolls of non-latex adhesive tape;
2. 24 sterile gauze pads, 3 inches x 3 inches;
3. 100, 3/4 inch x 3 inches adhesive bandages;
4. Eight, 2-inch bandage compresses;
5. Ten, 3-inch bandage compresses;
6. Two, 2 inches x 6 yards sterile gauze roller bandages;
7. Two, non-sterile triangular bandages approximately 40 inches x 36 inches x 54 inches with two safety pins;



8. Three sterile gauze pads, 36 inches x 36 inches;
9. Three sterile eye pads;
10. One pair rounded end scissors.

In addition to the items above, the First Aid Kit or Body Fluid Clean-up Kit (discussed below) must contain:

1. One pair of non-latex surgical gloves;
2. One mouth barrier.

The kit should be mounted in accordance with manufacturer's instructions in full view and in an accessible place in the driver's compartment. Its location should be clearly marked, and you should check its contents often. The pre-trip inspection described in Unit E (Preventive Maintenance) calls for a daily check of the First Aid Kit. It is your responsibility to replace any of the contents immediately after you use them or after noticing something has been removed. Consult your supervisor about procedures for obtaining new First Aid supplies.

Figure I-3. Body Fluid Clean Up Kit



BODY FLUID CLEAN UP KIT

Every school bus is required to have a removable and moisture proof Body Fluid Clean Up Kit. It must be securely placed or mounted in an easily accessible location and labeled as a Body Fluid Clean Up Kit. Take all steps to protect yourself from exposure. Keep in mind that you are not automatically infected, if you are exposed to blood or other bodily fluids; the amount needs to be large enough to overcome your immune system. If you feel you have been exposed, consult a medical professional.

Cleaning Body Fluid Spills

Thorough hand washing is the best tool to prevent the spread of infectious diseases. When cleaning up body fluid spills, you need to do the following:

1. Always wear disposable gloves. You need to wear disposable gloves whenever you might come in contact with blood or potentially infectious materials. If gloves are not available, or unanticipated contact occurs, hands and other affected areas should be washed with soap and running warm water immediately after contact. If not possible, wipe your hands thoroughly with the germicidal wipe provided in the Body Fluid Clean Up Kit.
2. Small spills can be cleaned with paper towels or tissues. After the bodily fluid is removed, use clean paper towels, soap and water or disinfectant wash to clean the area. For larger spills you can use the packet of solution to solidify body fluids in your Body Fluid Clean Up Kit.
3. Remove gloves and place into the plastic bag with the waste and other cleaning materials. Upon returning to the bus garage, remove the plastic bag and dispose in accordance with school district procedures and guidelines.
4. The driver must wash their hands with soap and running warm water for at least 30 seconds.
5. It is always a good idea to carry hand sanitizer, extra gloves and band aids as long as they are properly secured in the bus.

WHEN HANDLING BODY FLUIDS, ALWAYS REMEMBER TO PROTECT YOURSELF!

