

First Aid Guide



FOR SCHOOL EMERGENCIES

First Aid Guide for School Emergencies

This flipchart is a quick reference guide for administering emergency care to an injured or ill individual. It contains practical, step-by-step instructions that describe what to do when caring for an injured or ill person. It replaces a previous addition published in 1998.

Who Should Use this Flipchart

This flipchart is designed for use by teachers, school nurses, clinic aides, and other staff members responsible for the health and safety of students and others in the school setting. Do not use treatment methods beyond your skill level or your scope of practice. When in doubt, call 911.

How to Use This Flipchart

This flipchart should be posted in a place that is easily accessible to all staff members. It is recommended that **all** staff become familiar with the contents of this flipchart **prior** to the necessity for handling an emergency situation.

This flipchart is designed to help the user handle emergency situations:

- ◆ The first section, **Topical Index**, is an alphabetical listing of all topics contained in this flipchart.
- ◆ The second section, **General Emergency Guidelines**, provides general guidance and information on the administration of emergency assistance to individuals who are ill or injured prior to the arrival of emergency medical personnel.
- ◆ The third section, **Standard Precautions**, provides an overview of handling blood and body fluids in the school setting.
- ◆ The fourth section, **First Aid Procedures**, describes specific procedures for treating an ill or injured individual.
 - ◇ This section lists first aid procedures in alphabetical order.
 - ◇ A procedure may refer to related first aid procedures. The related procedure is in **bold** type.
 - ◇ A procedure also recommends when to call **911** or **Poison Center**. **Parents** always should be notified of a first aid emergency. (The term "parent" refers to the student's parent or legal guardian or the designated emergency contact person.)
- ◆ The fourth section, **Poisonings**, gives detailed instructions for handling an individual who has ingested or, in some way, come into contact with a poison or other hazardous substance.
- ◆ The fifth section, **Chemical, Biological, Radiologic, Nuclear, or Explosive Events**, gives instructions for who to contact in these emergencies.
- ◆ The sixth and final section, **Emergency Care Procedures**, describes procedures for handling emergency and life-threatening crisis medical situations including:
 - ◇ Cardiopulmonary Resuscitation (CPR)
 - ◇ Choking

TOPICAL INDEX

GENERAL EMERGENCY GUIDELINES

STANDARD PRECAUTIONS

FIRST AID PROCEDURES

ABDOMINAL INJURY

General Wounds
Protruding Wounds

ABDOMINAL PAIN

Non Severe/Stomach Ache
Severe/ With or Without Vomiting

ALLERGIC REACTION

Anaphylactic
Hives (Rash)/Itching
Swelling
Wheezing

AMPUTATION

ASTHMA

BEE/WASP STINGS

BITES

Animal
Human
Spider
Tick

BLEEDING

Internal
Severe Bleeding From a Wound

BLISTERS

BROKEN BONES

Casts
Dislocation
Closed Fracture
Open Fracture

BRUISES

BURNS

Chemical
Electrical
First Degree Thermal/Heat
Second Degree Thermal/Heat
Third Degree Thermal/Heat

CHEST PAIN

General
Cardiac Arrest

DENTAL PROBLEMS

Baby Teeth/Tooth Loss
Broken Braces and Wires
Broken/Displaced Tooth
Knocked Out/ Permanent Tooth
Toothache
Wedged Objects Between Teeth

DIABETES

Hyperglycemia
Hypoglycemia (Conscious)
Hypoglycemia (Unconscious)

EAR

Bug/Insect in Ear
Earache
Foreign Object

ELECTRICAL SHOCK

EYES

Chemical Burns
Discharge
Foreign Object

EYE INJURIES

Bruises/Blows
Penetrating

FAINTING

FEVER

FINGER INJURIES

General
Torn Fingernail/Toenail

FROSTBITE

GENITAL INJURY

Scrotal or Penile
Vaginal

HEADACHE

HEAD INJURY

HEAT EMERGENCIES

Heat Cramps
Heat Exhaustion
Heat Stroke

HYPERVENTILATION

MOUTH/JAW INJURIES

NOSE

Nose Bleeds
Foreign Objects

SEIZURE

SHOCK

SPINAL INJURY

SPLINTERS

SPRAINS/STRAINS

VOMITING

WOUNDS

Cuts/Superficial Abrasions
Deep/Extensive Lacerations
Puncture

POISONINGS

INGESTED/SWALLOWED

INHALATION OF GAS VAPORS

OCULAR (EYE) EXPOSURE

SKIN EXPOSURE

CHEMICAL, BIOLOGICAL, RADIOLOGIC, NUCLEAR, OR EXPLOSIVE EVENTS

EMERGENCY CARE PROCEDURES

CPR

Adult or Child CPR (8 and older)
Child CPR (1-8)
Infant CPR (under 1)

CHOKING

Conscious Child or Adult
Unconscious Child or Adult
Conscious Infant
Unconscious Infant

GENERAL EMERGENCY GUIDELINES

1. Remain calm and communicate a calm, supportive attitude to the ill or injured individual.
2. Never leave an ill or injured individual unattended. Have someone else call 911 and the parent.
3. **Do not** move an injured individual or allow the person to walk (bring help and supplies to the individual). Other school staff or responsible adults should be enlisted to help clear the area of students who may congregate following an injury or other emergency situation.
4. If trained and if necessary, institute CPR.
5. Have 911 called immediately for:
 - ◆ Anaphylactic reaction
 - ◆ Amputation
 - ◆ Bleeding (severe)
 - ◆ Breathing difficulty (persistent)
 - ◆ Broken bone
 - ◆ Burns (chemical, electrical, third degree)
 - ◆ Chest pain (severe)
 - ◆ Choking
 - ◆ Electrical shock
 - ◆ Frostbite
 - ◆ Head, neck, or back injury (severe)
 - ◆ Heat stroke
 - ◆ Poisoning
 - ◆ Seizure (if no history of seizures)
 - ◆ Shock
 - ◆ Unconsciousness
 - ◆ Wound (deep/extensive)
6. **Do not** use treatment methods beyond your skill level or your scope of practice. When in doubt, call 911. All persons working with students are encouraged to obtain training in CPR/First Aid through an authorized community agency.

STANDARD PRECAUTIONS: FOR HANDLING BLOOD/BODY FLUIDS IN SCHOOL

- ◆ Anticipating potential contact with infectious materials in routine and emergency situations is the most important step in preventing exposure to and transmission of infections.
- ◆ Use Standard Precautions and infection control techniques in **all** situations that may present the hazard of infection.
- ◆ Precautions should be observed and appropriate protection used when caring for bleeding injuries or handling other body fluids in emergency situations. Body fluids include blood, drainage from cuts, scabs, skin lesions, urine, feces, vomitus, nasal discharge, and saliva. The body fluids of all persons should be considered to be potentially hazardous.
- ◆ Avoid direct contact with body fluids. Caregivers who anticipate assisting in first aid when body fluids are present (e.g., cleaning cuts and scrapes, treating a bloody nose) should use disposable gloves.
- ◆ Caregivers should use protective eyewear and masks in certain situations.
- ◆ If unanticipated skin contact occurs, hands and all other affected skin should be washed with soap and running water as soon as possible. The local procedures for blood and body fluid exposure should be followed.
- ◆ Diligent and proper hand washing, the use of barriers (e.g., gloves), appropriate disposal of waste products and needles, and proper care of spills are essential techniques of infection control.
- ◆ If it is necessary to perform CPR, a one-way mask or other infection control barrier should be used. However, CPR should not be delayed while such a device is located.

HAND WASHING PROCEDURE

1. Wash hands vigorously with soap under a stream of warm running water for at least 20 seconds.
2. Wash all surfaces including backs of hands, wrists, between fingers, and under nails.
3. Rinse hands well with running water and thoroughly dry with paper towels.
4. If soap and water are unavailable, an alcohol-based hand rub may be used.

GLOVES

1. Gloves must be worn when direct care may involve contact with any type of body fluid.
2. Disposable, single-use, waterproof gloves (e.g., latex or vinyl) should be used. (Vinyl gloves should be used with individuals who have a latex allergy or a high potential for developing a latex allergy, e.g., individuals with spina bifida.)
3. Discard gloves in the appropriate container after each use.
4. Hands should be washed immediately after glove removal.

DISPOSAL OF INFECTIOUS WASTE

1. All used or contaminated supplies (e.g., gloves and other barriers, sanitary napkins, bandages) except syringes, needles, and other sharp implements should be placed into a plastic bag and sealed. This bag can be thrown into the garbage out of reach of children or animals.
2. Needles, syringes, and other sharp objects should be placed **immediately** after use in a puncture-proof container that is leak proof on the bottom and sides. To reduce the risk of a cut or accidental puncture by a needle, **NEEDLES SHOULD NOT BE RECAPPED, BENT, OR**

REMOVED FROM THE SYRINGE BEFORE DISPOSAL. Once the container is full, it should be sealed, bagged, and kept out of the reach of children or animals until it can be disposed of properly.

3. Body waste (e.g., urine, vomitus, feces) should be disposed of in the toilet. If body fluids (e.g., urine, vomitus) are spilled, the body fluids should be covered with an absorbent sanitary material, gently swept up, and discarded in plastic bags.

CLEAN-UP: Spills of blood and body fluids

1. Spills of blood and body fluids should be cleaned up immediately with an approved disinfectant cleaner.
2. Wear gloves.
3. Mop up spill with absorbent material.
4. Wash the area well, using the disinfectant cleaner supplied in the clinic or a 1:10 water/bleach solution. (Mix 1 part household bleach in 10 parts of water. Replace solution daily.)
5. Dispose of gloves, soiled towels, and other waste in sealed plastic bags and place in garbage, as already indicated.

CLEAN-UP: Routine environmental clean-up

1. When clinics and bathrooms become contaminated with blood or body fluids, use the procedures outlined above.
2. Regular cleaning of non-contaminated surfaces, (e.g., toilet seats, tabletops) can be done with standard cleaning solutions or the 1:10 water/bleach solution described above. Regular cleaning of obvious soil is more effective than extraordinary attempts to disinfect or sterilize surfaces.
3. Brooms and dustpans must be rinsed with disinfectant. Mops must be soaked in disinfectant, washed, and thoroughly rinsed. The disinfectant solution should be disposed of promptly down the drain.

Please refer to:

- ◆ The Occupational Safety and Health Administration (OSHA) Final Bloodborne Pathogens Standards for the most recent requirements.

FIRST AID PROCEDURES

ABDOMINAL INJURY

GENERAL WOUNDS

TREATMENT

1. Determine cause of injury.
2. Call **911**.
3. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
4. Carefully position individual on back.
5. If movement of the legs does not cause pain, place a pillow under knees to help relax the abdominal muscles.
6. If movement of the legs causes pain, leave individual lying flat.
7. Control bleeding with a bulky dressing.
8. **Do not** give food or drink.
9. **Do not** give medication.
10. Call parent.

PROTRUDING WOUNDS

NOTE: A protruding abdominal wound is an injury to the abdomen causing internal organs to be exposed or protrude through the wound.

TREATMENT

1. Determine cause of injury.
2. Call **911**.
3. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
4. Carefully position individual on back.
5. If movement of the legs does not cause pain, place a pillow under knees to help relax the abdominal muscles.
6. If movement of the legs causes pain, leave individual lying flat.
7. **Do not** apply any pressure to the protruding organs.
8. **Do not** attempt to push protruding organs back into the abdomen.
9. Remove any clothing from around wound.
10. Cover wound with clean cloth (preferably sterile).
11. If there is a delay in medical assistance:
 - Loosely drape sterile dressings or a clean cloth over the wound.
 - Use sterile saline to moisten the dressings.
 - Hold dressing in place with bulky bandage.
12. Treat for Shock (see **Shock**).
13. **Do not** give food or drink.
14. **Do not** give medication.
15. Call parent.

ABDOMINAL PAIN

NON SEVERE/ STOMACH ACHE

TREATMENT

1. Take temperature.
2. Have individual rest 15-30 minutes.
3. If temperature is greater than 100 °F and/or pain intensifies, call parent and recommend contact with health provider.

SEVERE/ WITH OR WITHOUT VOMITING

TREATMENT

1. Call **911**.
2. **Do not** give anything to eat or drink.
3. **Do not** give medication.
4. Take temperature.
5. Call parent.

ALLERGIC REACTION

ANAPHYLACTIC

NOTE: An anaphylactic reaction (**shock**) is a severe, and sudden generalized reaction that is **potentially life threatening**. Symptoms include respiratory distress or shock.

SIGNS AND SYMPTOMS

- ◆ Apprehension
- ◆ Rash (particularly on face)
- ◆ Swelling of affected areas (particularly on face, tongue, and neck)
- ◆ Breathing difficulty, wheezing, gurgling, high-pitched sounds
- ◆ Skin is flushed and dry or pale, cool, and clammy
- ◆ Increased heart rate, weak pulse

TREATMENT

1. Call **911**.
2. If individual is known to have allergies, consult the written emergency action plan on file and proceed with physician's recommendations (for example, EpiPen).
3. Check individual's pulse and respiration. Be alert for breathing and pulse being slower or faster than usual.
4. If necessary, cover with blankets to keep warm.
5. If necessary, certified personnel start CPR (see **CPR** and **Shock**).
6. Call parent.

HIVES (RASH)/ITCHING

NOTE: Hives are eruptions of the skin caused by contact with or ingestion of an allergic substance or food. Hives appear as raised blotches on the skin, pale in the middle, with reddened border, often accompanied by itching. Hives involving mouth, eyelids and tongue are **potentially life threatening**.

TREATMENT

1. If hives involve eyelids, lips, mouth, or tongue, call **911**.
2. If individual is known to have allergies, consult the written emergency action plan on file and proceed with physician's recommendations (for example, EpiPen).
3. Apply cold compress.
4. Give reassurance.
5. If individual is too uncomfortable to do school work, send home.
6. Call parent.

SWELLING

NOTE: An allergic reaction that causes swelling is **potentially life threatening**.

TREATMENT

1. If there is face, mouth, and neck swelling, call **911**.
2. Apply cold compresses.
3. Give reassurance.
4. Call parent.

WHEEZING

NOTE: Wheezing is an abnormally high-pitched noise resulting from a partially obstructed airway. Check for Asthma Emergency Care Plan and initiate treatment as directed. Airway obstruction is **potentially life threatening**.

TREATMENT

1. If breathing problem is severe, prolonged, or occurs with hives and/or swelling, call **911**.
2. Place individual in comfortable position, usually sitting.
3. If necessary, certified personnel start CPR (see **CPR**).
4. Call parent.

AMPUTATION

NOTE: Amputation is the severing (all or part) of a limb or digit of the body.

TREATMENT

1. Call **911** immediately.
2. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
3. Control bleeding by placing a clean dressing (preferably sterile) over the wound and apply pressure on a nearby artery.
4. Never complete the amputation.
5. Treat for Shock (see **Shock**).
6. If complete amputation:
 - Place direct pressure on wound site.
 - Place indirect pressure on nearby arteries.
 - Locate severed body part.
 - **Do not** wash severed part.
 - Wrap part in clean (preferably sterile) dressing.
 - Place part in plastic airtight bag and lay bag in pan of water kept cool with ice packs. **Do not** put part directly on ice.
 - Give part to EMS personnel.
7. Call parent.

ASTHMA

NOTE: Asthma is a lung disease that causes repeated episodes of breathing problems. Symptoms of asthma can be mild, severe, or fatal. Asthma is **potentially life threatening**.

SIGNS AND SYMPTOMS

- ◆ Breathing problems
- ◆ Wheezing (high-pitched, whistling sound)
- ◆ Coughing
- ◆ Tightness in chest
- ◆ Shortness of breath

TREATMENT

1. Place individual in comfortable position, usually sitting, leaning forward.
2. Remain calm.
3. If individual is known to school personnel as having asthma, refer to the written emergency action plan on file and proceed with physician's recommendations.
4. If any of the following conditions exist, **call 911**:
 - Difficulty breathing (significant use of neck and chest muscles for breathing or poor air movement).
 - Shortness of breath or inability to speak more than 3-5 word sentences.
 - Breathing rate of less than 12 or greater than 30 times a minute.
 - Individual with decreased level of consciousness.
 - Bluish lips or nail beds.
5. Call parent.

BEE and WASP STINGS

NOTE: Individuals with known allergy should have an Emergency Care Plan.

SIGNS AND SYMPTOMS

- ◆ Local Reaction
 - Intense pain
 - A whitish bump with a red dot in its center
 - Swelling **at the site** of the sting
- ◆ Anaphylactic Reaction (see **Allergic Reaction**)
 - Apprehension
 - Rash (particularly on face)
 - Swelling of face and tongue
 - Difficulty breathing, wheezing, gurgling, high pitched sounds
 - Skin feels moist and or appears flushed, pale or bluish
 - Rapid, weak pulse

TREATMENT

1. If necessary, call **911** (see **Allergic Reaction**).
2. If individual is known to have allergies to bee/wasp stings, consult the written emergency action plan on file and proceed with physician's recommendations.
3. If necessary, certified personnel start CPR (see **CPR**).
4. Remove stinger as quickly as possible.
5. Apply cold compress to reduce pain and swelling.
6. If the sting is on the arm or leg, keep extremity below the level of the heart.
7. **Call Poison Center** for additional treatment advice.
8. Call parent.

BITES

NOTE: For all bites, if there is any history of allergic reaction or if any of the following signs and symptoms are present, call **911**.

SIGNS AND SYMPTOMS OF ALLERGIC REACTION

- ◆ Hives (raised blotches on the skin)
- ◆ Itching and swelling involving skin, nose, or eyes
- ◆ Throat tightness, swelling inside the mouth, metallic taste, and hoarseness
- ◆ Wheezing (high-pitched, whistling sound), difficulty breathing, chest tightness
- ◆ Person appears in shock
- ◆ Weakness, dizziness, headache, fainting
- ◆ Altered state of consciousness
- ◆ Nausea and vomiting
- ◆ Chills
- ◆ Fever
- ◆ Muscle cramps, joint pain
- ◆ Rapid pulse

ANIMAL BITE

TREATMENT

1. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
2. Remove rings and bracelets from bitten extremity.
3. Cleanse wound thoroughly with soap and water for 5 minutes.
4. Cover wound with clean bandage (preferably sterile).
5. Determine individual's tetanus immunization status.
6. If injury not severe, call parent and recommend contact with health provider.
7. Call Animal Control.
8. Report all animal bites to the local health department.

HUMAN BITE

TREATMENT

1. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
2. Remove rings and bracelets from bitten extremity.
3. Cleanse wound thoroughly with soap and water for 5 minutes.
4. Cover wound with clean bandage (preferably sterile).
5. Determine individual's tetanus immunization status.
6. Assess Hepatitis B vaccination status of involved individual.
7. Call parent and recommend contact with health provider.

SPIDER: BLACK WIDOW and/OR BROWN RECLUSE BITE

NOTE: Bites from black widow spiders and brown recluse spiders are **potentially life threatening**.

SIGNS AND SYMPTOMS – Black Widow

- ◆ Pain at site of bite
- ◆ Pain, muscle spasm, and paralysis at distant site
- ◆ Nausea and vomiting
- ◆ Abdominal cramps
- ◆ Chest tightness
- ◆ Difficulty breathing
- ◆ Dizziness
- ◆ Sweating
- ◆ Signs of shock (see **Shock**)

SIGNS AND SYMPTOMS – Brown Recluse

- ◆ Red lesion at bite site
- ◆ Lesion blisters and may become painful ulceration
- ◆ Fever
- ◆ Nausea
- ◆ Body rash

TREATMENT

1. Lower affected part below the level of the heart.
2. Remove rings and bracelets from bitten extremity.
3. Cleanse area with soap and water.
4. Apply cold compresses.
5. Keep bitten extremity immobilized.
6. If signs and symptoms of allergic reaction occur (see **Allergic Reaction**), call **911**.
7. Call parent and recommend contact with health provider.

TICK BITE

TREATMENT

1. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
2. Using tweezers, remove tick as follows:
 - Grasp tick as close to the skin as possible.
 - Gently, but firmly pull tick straight out.
 - Avoid any twisting or jerking motion that may break off the mouth parts in the skin.
3. **Do not** remove tick using nail polish, petroleum jelly, alcohol, or a hot match.
4. After the tick has been removed, cleanse area thoroughly with soap and water.
5. If signs and symptoms of allergic reaction occur (see **Allergic Reaction**), call **911**.
6. Call parent and recommend contact with health provider.

BLEEDING

INTERNAL

NOTE: Internal bleeding is **potentially life threatening**.

SIGNS AND SYMPTOMS

- ◆ Bruising, swelling, or pain over a vital organ
- ◆ Painful, swollen extremity
- ◆ Bleeding from mouth, vagina, rectum, or other opening
- ◆ Tender, rigid, distended abdomen
- ◆ Signs of shock (see **Shock**)

TREATMENT

1. Determine cause of injury.
2. Call **911**.
3. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
4. Maintain open airway. If necessary, certified personnel start CPR (see **CPR**).
5. Control bleeding by applying pressure.
6. Monitor for signs and symptoms of shock (see **Shock**).
7. If vomiting, lay individual on side.
8. Keep individual warm, comfortable, and calm.
9. Call parent.

SEVERE BLEEDING FROM A WOUND

TREATMENT

1. Determine cause of injury.
2. Call **911**.
3. Wear gloves, mask, and protective eyewear. Use Standard Precautions (see **Standard Precautions**).
4. Control bleeding by placing a clean covering (preferably sterile) over wound and applying direct pressure.
5. If injury does not appear to involve broken bone, elevate injured area above the level of the heart.
6. If necessary, add more dressings. **Do not** remove previous dressing. Secure dressing in place.
7. In case of amputation, see **Amputation**.
8. Treat for shock (see **Shock**).
9. If necessary, certified personnel should start CPR (see **CPR**).
10. Call parent.

BLISTERS

TREATMENT

1. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
2. Cleanse area with soap and water. Avoid breaking blister.
3. Apply a dry bandage.
4. If blister is broken, wash with soap and water and apply dry bandage.
5. If blistered area is red, swollen, and/or painful, call parent and recommend follow-up medical care.

BROKEN BONES

CASTS

NOTE: Swelling of extremity may occur when a cast is used. This may cause a restriction in blood flow and is **potentially life threatening**.

SIGNS AND SYMPTOMS

- ◆ Complaints of pain, tingling, and numbness
- ◆ Feelings of cold
- ◆ Swelling
- ◆ Discoloration

TREATMENT

1. Elevate casted extremity.
2. Call parent and recommend follow-up medical care.

DISLOCATION

NOTE: A dislocation is the movement of a bone from its normal joint position.

SIGNS AND SYMPTOMS

- ◆ Inability to move the affected part normally
- ◆ A bump, ridge, or hollow that does not normally exist in a nonfunctioning joint
- ◆ Pain
- ◆ Bruising
- ◆ Swelling

TREATMENT

1. Determine cause of injury.
2. Keep individual quiet and warm.
3. **Do not** attempt to put part back in place.
4. Support extremity with pillows, blankets, broomstick, uninjured limb, etc., to reduce pain.
5. Call parent and recommend follow-up medical care.

CLOSED FRACTURE

NOTE: A closed fracture is a complete break, chip, or crack in a bone in which the skin is not broken. Fractures are **potentially life threatening** when the break involves a large bone (e.g., thigh), severs an artery, or affects breathing.

SIGNS AND SYMPTOMS

- ◆ Possible deformity or angulation
- ◆ Pain and tenderness
- ◆ Bruising
- ◆ Swelling
- ◆ Inability to use the affected part normally
- ◆ Injured area is cold and numb

TREATMENT

1. Determine cause of the injury.
2. If fracture is suspected or obvious, call **911**.

3. Keep individual quiet, still, and warm.
4. Unless there is danger to life, **do not** move from place of accident until affected part has been properly supported or immobilized.
5. Immobilize extremity by supporting joints on either side of injury with pillows, blankets, broomstick, uninjured limb, etc., to reduce pain.
6. Assess and treat for shock (see **Shock**).
7. If necessary, certified personnel start CPR (see **CPR**).
8. Apply ice/cold pack for 15 minutes. (**Do not** apply ice directly to skin.)
9. Call parent.

OPEN FRACTURE

NOTE: An open fracture is the complete break, crack, or chip in a bone in which the skin is broken. There is the risk of infection and severe bleeding with open fractures. Fractures may be **potentially life threatening**.

SIGNS AND SYMPTOMS

- ◆ Possible deformity or angulation
- ◆ Pain and tenderness
- ◆ Bone fragments sticking out of the wound
- ◆ Inability to use the affected part normally
- ◆ Bleeding
- ◆ Injured area is cold and numb

TREATMENT

1. Determine cause of injury.
2. Call **911**.
3. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
4. Keep individual quiet, still, and warm.
5. Control bleeding by placing a clean cloth (preferably sterile) over the wound and applying pressure on a nearby artery.
6. Assess and treat for shock (see **Shock**).
7. If necessary, certified personnel start CPR (see **CPR**).
8. Unless there is danger to life, **do not** move from place of accident until affected limb has been properly supported or immobilized.
9. Immobilize extremity to reduce pain. Support with pillows, blankets, broomstick, uninjured limb, etc.
10. Apply ice/cold pack for 15 minutes. (**Do not** apply ice directly to skin.)
11. Call parent.

BRUISES

SIGNS AND SYMPTOMS

- ◆ Skin appears deep red, purple, and/or bluish
- ◆ Swelling
- ◆ Pain

TREATMENT

1. Rest affected part.
2. If skin is broken, wear gloves. Use Standard Precautions (see **Standard Precautions** and **Wounds**).
3. Apply cold compresses or ice/cold packs immediately. (**Do not** apply ice directly to skin.)
4. If there is swelling or severe pain, call parent and recommend contact with health provider.

BURNS

CHEMICAL

NOTE: Treatment will vary with the nature of the chemical and the extent of the burn.

TREATMENT

1. Call **911** immediately.
2. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
3. If the chemical is in a dry or powder form, carefully brush it off the skin before flushing with water.
4. Flush skin or eye immediately with large amounts of cool water.
5. Continue flushing 30 minutes or until EMS arrives.
6. If possible, remove outer clothing while burn is being flushed.
7. If available, follow directions on chemical container.
8. Call **Poison Center**.
9. Call parent.
10. If available, send chemical container with the individual.

ELECTRICAL

NOTE: Electrical burns, including lightning burns, may be more serious than initial appearance. The entrance wound may be small, but the electricity continues to burn as it penetrates deeper. Electrical burns are often accompanied by respiratory or cardiac arrest. Respiratory arrest usually occurs first and is later complicated by cardiac arrest.

TREATMENT

1. Call **911**.
2. **Do not** attempt to remove individual from the source of electricity. Never go near an individual who may have been injured by electricity until you are sure power source has been turned off.
3. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
4. If necessary, and only after contact is broken with electrical source, certified personnel start CPR (see **CPR**).
5. Cover the burned area with a dry (preferably sterile) non-stick dressing.
6. Look for a second burned area where the electricity left the body.
7. Treat for shock (see **Shock**).
8. Call parent.

FIRST DEGREE THERMAL/HEAT

NOTE: Involves only the top layer of the skin. Includes sunburn.

SIGNS AND SYMPTOMS

- ◆ Skin is red and dry
- ◆ Burn is usually painful
- ◆ Area may swell

TREATMENT

1. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
2. If burned on face or smoke inhaled, anticipate need for CPR (see **CPR**). Call **911**.

3. Maintain open airway.
4. If necessary, certified personnel start CPR (see **CPR**).
5. Cool burn area with cool compresses or water for 10-15 minutes. (**Do not** use ice.)
6. **Do not** apply any grease, salves, or lotions.
7. If necessary, bandage lightly with sterile gauze to protect the area and to decrease pain.
8. If possible, elevate burned arm or leg.
9. If necessary, treat for shock (see **Shock**).
10. Call parent and recommend contact with health provider.

SECOND DEGREE THERMAL/HEAT

NOTE: Involves the top layers of skin.

SIGNS AND SYMPTOMS

- ◆ Skin is red and blistered
- ◆ Blisters may open and weep clear fluid
- ◆ Skin may appear blotchy
- ◆ Burn is usually painful
- ◆ Area may swell

TREATMENT

1. Follow guidelines for first degree burns unless extensive area (greater than the size of palm) is involved. In this instance, follow procedure for treatment of third degree burns.
2. If difficulty breathing, call **911** immediately.
3. If necessary, certified personnel start CPR (see **CPR**).

THIRD DEGREE THERMAL/HEAT

NOTE: Destroys all layers of skin and any or all of the underlying structures—fat, muscles, bones, and nerves. Third degree burns are **potentially life threatening**.

SIGNS AND SYMPTOMS

- ◆ Skin appears brown or black (charred) with tissues underneath sometimes appearing white.
- ◆ May be extremely painful or painless if burn destroys nerve endings.

TREATMENT

1. Call **911** immediately.
2. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
3. Maintain open airway.
4. If necessary, certified personnel start CPR (see **CPR**).
5. If possible, elevate burned area.
6. **Do not** apply moist compresses, grease, salves, or lotions.
7. Keep individual quiet, comfortable and warm.
8. Cover area with clean (preferably sterile) cloth.
9. Remove clothing only if not stuck to burned area, contaminated, or on fire.
10. Treat for shock (see **Shock**).
11. Call parent.

CHEST PAIN

GENERAL

NOTE: Any chest pain that is severe, or persists during rest (particularly in adults) requires immediate medical care. This is **potentially life threatening**.

SIGNS AND SYMPTOMS

- ◆ Persistent pain or pressure in the chest that is not relieved by resting, changing position, or prescribed oral medication
- ◆ Pain ranges from discomfort to unbearable crushing pain behind breastbone described as dull, penetrating, pressure, or squeezing
- ◆ Pain sometimes radiating down left arm, both arms, or jaw
- ◆ Difficulty breathing
- ◆ Agitation and apprehension
- ◆ Nausea or indigestion
- ◆ Pulse faster or slower than normal or irregular
- ◆ Cold sweat

TREATMENT

1. Call **911** immediately and request **Advanced Life Support**.
2. Remain with individual until emergency personnel arrive.
3. Place the individual in a comfortable position, usually sitting up, particularly if there is shortness of breath.
4. Loosen tight clothing.
5. Provide reassurance.
6. If individual has "heart medicine" with him in the clinic, assist him take it. (For a child, consult the written emergency action plan on file and proceed with the physician's recommendations.)
7. **Do not** give food, drink, or "pills" to an unconscious individual.
8. **Do not** attempt to transport individual. This will add additional strain.
9. If necessary, certified personnel start CPR (see **CPR**).
10. Call parent (or emergency contact person for non-student).

CARDIAC ARREST

NOTE: The absence of signs of circulation (breathing, coughing, or movement) is the main signal of cardiac arrest. Cardiac emergencies are **life threatening**.

SIGNS AND SYMPTOMS

- ◆ No sign of circulation (breathing, coughing, or movement).

TREATMENT

1. For cardiac arrest (heart stops beating/no signs of circulation), call **911** immediately. Certified personnel start CPR (see **CPR**).
2. Call parent (or emergency contact person for non-student).

DENTAL PROBLEMS

BABY TEETH/ TOOTH LOSS

(No injury) age 6-11

TREATMENT

1. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
2. Rinse mouth with warm water.
3. If bleeding, have individual bite on gauze for several minutes.
4. Send tooth home with individual in sealed container (e.g., envelope or plastic bag).
5. Call parent.

BROKEN BRACES and WIRES

TREATMENT

1. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
2. Cover ends of broken braces and wires with wax or a piece of gauze.
3. If wire becomes stuck in the cheek or gum tissues, **do not** attempt to remove it.
4. If appliance is loose or breaks, save any broken pieces.
5. Call parent and recommend follow-up dental care.

BROKEN/DISPLACED TOOTH

TREATMENT

1. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
2. Gently clean dirt from the injured area with warm water.
3. Apply ice/cold pack for 15 minutes on the face, over the injured area. (**Do not** apply ice directly to skin.)
4. If tooth has a sharp edge, cover with gauze to prevent cutting lips or cheek.
5. Save any broken tooth fragments.
6. If tooth is displaced or has been pushed up into the gum, **do not** attempt to pull it into position or move it.
7. Call parent and recommend immediate dental care.

KNOCKED OUT/ PERMANENT TOOTH

TREATMENT

1. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
2. Try to locate tooth.
3. Hold tooth by its crown (white portion)—not the root.
4. Rinse tooth gently in water. **Do not** scrub.
5. Place tooth in a container of cool milk or water.
6. Control bleeding by applying gentle pressure.
7. Apply ice/cold pack for 15 minutes on the face, over the injured area. (**Do not** apply ice directly to skin.)
8. Call parent and recommend immediate dental care.

TOOTHACHE

TREATMENT

1. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
2. Rinse the mouth with warm water.
3. If available, individual may use dental floss to dislodge any trapped food.
4. If swelling is present, apply ice/cold pack for 15 minutes on the face over the affected part. (**Do not** apply ice directly to skin.)
5. Use ice chips for pain caused by an incoming permanent tooth.
6. Call parent and recommend dental follow-up care.

WEDGED OBJECT BETWEEN TEETH

TREATMENT

1. Wear gloves. Use Standard Precautions. (See **Standard Precautions**.)
2. If available, individual may try to remove the object with dental floss.
3. **Do not** try to remove the object with sharp or pointed instrument.
4. If unsuccessful, call parent and recommend follow-up dental care.

DIABETES

NOTE: The diabetic reaction may be in response to blood sugar that is too low (hypoglycemia) or blood sugar that is too high (hyperglycemia). The immediate effects of low blood sugar can be more serious than those of high blood sugar. **When the first aid care provider is uncertain of the type of diabetic reaction, treat for the symptoms of hypoglycemia (low blood sugar).** If the individual is known to school personnel as having diabetes, **consult the written emergency action plan** on file and proceed as directed in the physician's action plan.

HYPERGLYCEMIA

NOTE: The onset of symptoms of hyperglycemia (high blood sugar) is usually gradual. If untreated, this condition is **potentially life threatening**.

SIGNS AND SYMPTOMS

- ◆ Dry, warm, and flushed skin
- ◆ Drowsiness
- ◆ Increased thirst
- ◆ Increased urination
- ◆ Hunger
- ◆ Fruity breath odor
- ◆ Nausea/vomiting
- ◆ Changes in vision
- ◆ Heavy, rapid breathing
- ◆ Eventual stupor and unconsciousness

TREATMENT

1. If available, use glucose monitor and finger stick test.
2. Determine if individual is hyperglycemic.
3. If individual is known to have diabetes, consult the written emergency action plan on file and proceed with physician's recommendations.
4. Encourage individual to drink large quantities of sugar-free fluids.
5. If signs and symptoms persist, call **911**.
6. Call parent.

HYPOGLYCEMIA (IF THE INDIVIDUAL IS CONSCIOUS)

NOTE: The onset of hypoglycemia (low blood sugar) is usually sudden. If left untreated, this condition **can quickly become life threatening.**

SIGNS AND SYMPTOMS

- ◆ Headache
- ◆ Shakiness
- ◆ Sweaty, pale skin
- ◆ Drowsiness
- ◆ Staggering
- ◆ Poor coordination
- ◆ Bad temper/anger
- ◆ Confusion
- ◆ Disorientation
- ◆ Eventual stupor or unconsciousness

TREATMENT

1. If individual can swallow, give:
 - ◆ 2-4 glucose tablets or 3 teaspoons of sugar.
 - ◆ 4-6 ounces 100% orange or other juice.
 - ◆ 6-8 ounces regular (non-diet) soft drink.
2. If low blood sugar is the problem, recovery will usually occur in 10-15 minutes. If symptoms persist after 10-15 minutes, repeat step 1. If improving, repeat step 1 every 10-15 minutes until symptoms subside or blood sugar is above 80.
3. If the individual is known to have diabetes, consult the written emergency action plan on file and proceed with physician's recommendations.
4. If treatment is not effective and individual's condition worsens, call **911**.
5. Call parent.
6. If individual improves and next meal is more than 30 minutes away, give protein and complex carbohydrate such as cheese and crackers.

HYPOGLYCEMIA (IF THE INDIVIDUAL BECOMES UNCONSCIOUS)

TREATMENT

1. Call **911** immediately.
2. Maintain open airway.
3. Place individual on side, ensuring drainage of secretions or vomiting.
4. If the individual is known to have diabetes, consult the written emergency action plan on file and proceed with physician's recommendations.
5. If individual awakens and is able to swallow, give sips of regular (non-diet) soft drink. Give no more than 3-6 ounces.
6. If unable to swallow, massage cake gel between cheek and gum.
7. Call parent.

EAR

BUG/INSECT IN EAR

TREATMENT

1. Place a few drops of oil in the ear to quiet the insect.
2. Call parent and recommend follow-up medical care.

EARACHE

TREATMENT

1. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
2. If discharge is present, wipe from outer ear only.
3. Allow free drainage.
4. Call parent and recommend contact with health provider.

FOREIGN OBJECT

TREATMENT

1. **Do not** attempt to remove object at school.
2. Call parent and recommend contact with health provider.

ELECTRICAL SHOCK

NOTE: Electrical shock resulting from the passage of electric current through any part of the body is **potentially life threatening**.

SIGNS AND SYMPTOMS

- ◆ Burns
- ◆ Weak, rapid pulse
- ◆ Cold, clammy skin
- ◆ Restlessness
- ◆ Confusion
- ◆ Unresponsive/unable to answer questions
- ◆ Skin over knees, hands, and feet may appear blotchy
- ◆ Face may be pale or blue
- ◆ Mucous membranes inside mouth and eyelids may be blue
- ◆ Eyes dull, pupils dilated
- ◆ Fainting
- ◆ Sweating
- ◆ Vomiting
- ◆ Breathing may be rapid, irregular, gasping, shallow, or labored

TREATMENT

1. Call **911**.
2. **Do not go near an individual who may have been injured by electricity until you are sure power source has been turned off.**
3. If a power line is down, wait for the fire department/power company before approaching.
4. If applicable, turn off source of electrical current.
5. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
6. Check breathing and pulse. If necessary, certified personnel start CPR (see **CPR**).
7. If necessary, treat for Shock (see **Shock**).
8. Check individual for other injuries and consult appropriate procedures.
9. **Do not** move individual.
10. Cover electrical burn with dry, sterile dressing. **Do not** cool burn (see **Burns/Electrical**).
11. If there are no signs and symptoms of electrical shock, continue to observe individual.
12. Call parent.

EYES

CHEMICAL BURNS

TREATMENT

1. Determine type of chemical.
2. Call **911**.
3. If dry chemical, carefully brush off as much as possible, avoiding additional skin contact.
4. Immediately flush eye with large quantities of cool water. Turn head to the side and pour water from nose outward. **Do not** allow chemical to wash into unaffected eye.
5. Call **Poison Center** for further instructions (see **Poisonings**).
6. Call parent.

DISCHARGE

SIGNS AND SYMPTOMS

- ◆ Red, watery, swollen eyes
- ◆ Thick yellow discharge

TREATMENT

1. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
2. **Do not** put a patch over a possible eye infection.
3. Exclude individual from school until condition has cleared up or individual has been authorized to return to school by a health care provider.
4. Call parent and recommend contact with health provider.

FOREIGN OBJECT

SIGNS AND SYMPTOMS

- ◆ Pain
- ◆ Tearing
- ◆ Redness
- ◆ Scratchy feeling in eye
- ◆ Vision changes

TREATMENT

1. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
2. Urge individual to avoid rubbing affected eye.
3. Flush with lukewarm water. Turn head to the side and pour water from nose outward.
4. If particle seems imbedded, **do not** attempt to remove it.
5. If object remains, cover both eyes loosely with gauze or cloth to restrict eye movement.
6. Call parent and recommend immediate follow-up medical care.

EYE INJURIES

BRUISES/BLOWS

TREATMENT

1. Determine cause of the injury.
2. If minor trauma and no referral needed, apply ice/cold pack for 15 minutes to eye. (**Do not** apply ice directly to skin.)
3. Call parent, patch both eyes to minimize eye movement, and refer for immediate medical care if:
 - ◆ Iris (colored part of the eye) appears brown on blue-eyed individual or reddish on brown-eyed individual
 - ◆ Laceration to lid or eyeball
 - ◆ Visible trauma to lid or eyeball
 - ◆ Change in vision
 - ◆ Painful eye
 - ◆ Feels like foreign body in eye for over 1 hour
 - ◆ Experiences flashing light or floaters in field of vision
 - ◆ Vision seems cloudy or shady

PENETRATING INJURY

TREATMENT

1. Determine cause of the injury.
2. Call **911**.
3. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
4. **Do not** attempt to remove object or wash eye.
5. Cover both eyes loosely with gauze or cloth. Do not touch object.
6. Keep individual calm and quiet.
7. Call parent.

FAINTING

SIGNS AND SYMPTOMS

- ◆ Blurred vision
- ◆ Light-headedness
- ◆ Nausea
- ◆ Sweating
- ◆ Loss of consciousness

TREATMENT

1. Position individual on back on a flat surface.
 2. If other injuries are present, see appropriate procedures.
 3. If no injuries, elevate legs 8-12 inches.
 4. Loosen clothing around neck and waist.
 5. Apply cool, damp cloth to head.
 6. Continue to observe carefully.
 7. If recovery is not complete in 2 minutes, call **911**.
 8. If breathing stops, certified personnel start CPR (see **CPR**).
1. Call parent.

FEVER

NOTE: Fever may indicate a contagious illness and child may need to be excluded from school.

SIGNS AND SYMPTOMS

- ◆ Oral temperature 100°F or greater may be associated with:
 - ◆ Headache
 - ◆ Watery, red, eyes and nose
 - ◆ Cough
 - ◆ Skin rash
 - ◆ Sore throat
 - ◆ Vomiting
 - ◆ Diarrhea

TREATMENT

1. Take temperature. If fever is present (100 °F or greater), check for other symptoms of illness.
2. Allow individual to lie down.
3. Apply cool compress to forehead.
4. Isolate individual for the benefit of others.
5. Call parent and recommend contact with health provider.

FINGER INJURIES

GENERAL

TREATMENT

1. Determine cause of injury.
2. For minor injury, such as shutting door on finger, apply ice/cold pack for 15 minutes. (**Do not** apply ice directly to skin.)
3. Call parent.

TORN FINGERNAIL/TOENAIL

TREATMENT

1. If there is bleeding, wear gloves. Use Standard Precautions (see **Standard Precautions**).
2. If torn into nail bed, clean with soap and water and apply dressing.
3. Use gentle pressure to stop bleeding.
4. Apply ice/cold pack for 15 minutes to reduce swelling and pain. (**Do not** apply ice directly to skin.)
5. Call parent and recommend contact health provider.

FROSTBITE

NOTE: Severity of frostbite depends on air temperature, length of exposure, and the wind. Frostbite can cause loss of fingers, hands, arms, toes, feet, and legs. If freezing is deeper than the skin, tissue damage is severe. Gangrene may result. This condition is **potentially life threatening**.

SIGNS AND SYMPTOMS

- ◆ Lack of feeling in the affected area
- ◆ Skin appears white and waxy
- ◆ Skin is cold to the touch
- ◆ Skin may become discolored—flushed, white, yellow or, blue

TREATMENT

1. Call **911** immediately.
2. Bring individual indoors.
3. Keep individual warm.
4. **Do not** rub skin. **Do not** overheat. **Do not** use hot water bottles or heat lamps.
5. If blisters appear, **do not** break. Wear gloves. Use Standard Precautions (see **Standard Precautions**). Cover blister loosely with clean dressing.
6. If feet are frostbitten, **do not** allow individual to walk.
7. Call parent.

GENITAL INJURY

SCROTAL OR PENILE

SIGNS AND SYMPTOMS

- ◆ Bleeding
- ◆ Redness
- ◆ Pain

TREATMENT

1. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
2. If possible, have another adult present when examining an individual's genital area.
3. Determine cause of the injury.
4. Apply ice/cold pack for 15 minutes. (**Do not** apply ice directly to skin)
5. Call parent and recommend contact with health provider.

VAGINAL

SIGNS AND SYMPTOMS

- ◆ Bleeding
- ◆ Redness
- ◆ Pain
- ◆ Swelling

TREATMENT

1. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
2. If possible, have another adult present when examining an individual's genital area.
3. Determine cause of the injury.
4. Apply sanitary napkin and direct pressure.
5. Maintain individual in a reclining position with knees and legs together.
6. Call parent and recommend contact with health provider.

HEADACHE

NOTE: Headaches should receive emergency care if they are severe; persistent; severe with sudden onset; or accompanied by changes in vision or speech, numbness, vomiting, seizure, or alteration in consciousness.

TREATMENT

1. If there has been a head injury, call **911** (see **Head Injury**).
2. If there has been no trauma to the head, have individual lie down for 20-30 minutes in darkened area.
3. Check temperature.
4. Place a cool cloth on the forehead to promote relaxation.
5. If headache persists, call parent for follow-up medical care.

HEAD INJURY

NOTE: All head injuries are **potentially life threatening** and may need to be referred for immediate medical care. Suspect neck injury with all serious head injuries and treat head and neck as one unit.

SIGNS AND SYMPTOMS

- ◆ Projectile vomiting
- ◆ Personality changes
- ◆ Drowsiness
- ◆ Disorientation, confusion, memory loss
- ◆ Dizziness
- ◆ Severe headache
- ◆ Loss of consciousness at any time
- ◆ Bleeding from ears and/or nose
- ◆ Clear fluids from ears and/or nose
- ◆ Irregular breathing
- ◆ Increasing pain
- ◆ Slurring of speech
- ◆ Marked swelling
- ◆ Blurred or double vision
- ◆ Unequal pupils
- ◆ Numbness or tingling in extremities
- ◆ Seizure

TREATMENT

1. Determine cause of injury.
2. If individual has any of the symptoms listed above, call **911**.
3. Keep individual lying down and quiet.
4. If individual is unconscious and neck injury is **not** suspected, support head and gently turn entire body to one side (log roll) so secretions drain from mouth. **Do not** turn head if neck injury is suspected.
5. Loosen clothing around neck.
6. Check for airway obstruction. If necessary, certified personnel start CPR (see **CPR**).
7. **Do not** insert anything into the individual's mouth.
8. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
9. Control extensive bleeding by applying direct pressure to injury site.
10. **Do not** wash head wounds if suspect skull fracture.
11. Small cuts on face or scalp may bleed extensively. Control bleeding of this kind by applying clean dressings (preferably sterile) directly on the wound.
12. If dressings become blood soaked, add more dressings. **Do not** remove original dressing.
13. For blows to the head not accompanied by any of the above symptoms, treat for headache (see **Headache**).
14. If any of the above signs and symptoms occur at a later time, call **911** and parent.

HEAT EMERGENCIES

HEAT CRAMPS

NOTE: Heat cramps are often the first signal that the body is having trouble with its ability to regulate heat.

SIGN AND SYMPTOMS

- ◆ Painful muscle spasm, usually occurring in the legs and abdomen in hot weather

TREATMENT

1. Have individual rest in a cool place.
2. Give cool water or commercial sports drink.
3. Apply moist towels over cramped muscles.
4. Lightly stretch muscles and gently massage.
5. **Do not** give individual salt tablets or salt water.
6. When cramps stop, have individual drink plenty of fluids.
7. Watch individual for further signals of heat-related illness.
8. Individual may resume normal activity.
9. Call parent and recommend contact with health provider if no improvement.

HEAT EXHAUSTION

NOTE: Heat exhaustion is a more severe condition than heat cramps. Often affects athletes and those wearing heavy clothing in a hot, humid environment.

SIGNS AND SYMPTOMS

- ◆ Cool, moist, pale, or flushed skin
- ◆ Rapid, shallow breathing
- ◆ Weak pulse
- ◆ Heavy perspiration
- ◆ Dizziness
- ◆ Weakness
- ◆ Exhaustion

TREATMENT

1. Remove to cool area.
2. Keep individual lying down and elevate feet 8-12 inches.
3. Loosen clothing and remove the outer layers.
4. Cool by fanning.
5. If fully conscious, give sips of water.
6. If individual becomes drowsy, unconscious or vomits, call **911**.
7. If necessary, certified personnel start CPR (see **CPR**).
8. Call parent.

HEAT STROKE

NOTE: Heat stroke is the most severe heat emergency and is **potentially life threatening**.

SIGNS AND SYMPTOMS

- ◆ Hot, dry skin
- ◆ No perspiration
- ◆ Changes in consciousness, unconsciousness
- ◆ Weakness
- ◆ Rapid pulse
- ◆ Shallow breathing
- ◆ High body temperature (106°-110°F)
- ◆ Pupils dilated

TREATMENT

1. Remove individual to a cool area.
2. Call **911**.
3. Loosen clothing and remove outer layer.
4. Attempt to cool quickly. Apply cool packs to neck, groin, armpits, and fan aggressively.
5. Keep skin wet.
6. **Do not** apply rubbing alcohol.
7. If individual is conscious, give cool water to drink. **Do not** let individual drink too quickly. Give about 4 ounces of water every 15 minutes.
8. Let individual rest in a comfortable position.
9. Watch for changes in individual's condition and level of consciousness.
10. If individual vomits, wear gloves. Use Standard Precautions (see **Standard Precautions**). Stop giving fluids and position on side.
11. If breathing difficulty develops, certified personnel start CPR (see **CPR**).
12. If necessary, treat individual for shock (see **Shock**).
13. Call parent.

HYPERVENTILATION

SIGNS AND SYMPTOMS

- ◆ Rapid, shallow breathing
- ◆ Profuse sweating
- ◆ Pale skin
- ◆ Nausea
- ◆ Tingling of hands, face, and feet

TREATMENT

1. Calm and reassure individual.
2. Encourage individual to breathe slowly and deeply.
3. **Do not** have individual breathe into a paper bag.
4. If individual does not respond and condition worsens, call **911**.
5. Call parent.

MOUTH/JAW INJURIES

NOTE: Bleeding and fracture injuries of the mouth, jaw, lips, tongue, teeth, or inner cheek can create breathing difficulties. These injuries are **potentially life threatening**.

SIGNS AND SYMPTOMS

- ◆ Bleeding from mouth, lip, jaw, teeth
- ◆ Swelling
- ◆ Difficulty breathing
- ◆ Choking
- ◆ Pain

TREATMENT

1. Determine cause of injury.
2. Call **911**.
3. Maintain open airway. If necessary, certified personnel start CPR (see **CPR**).
4. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
5. If individual is conscious, bleeding from the mouth, and no neck injuries are suspected, prop individual up—leaning forward—to allow blood to drain.
6. If sitting position is not possible, place individual on side to allow blood to drain from the mouth.
7. If lip is penetrated, place a rolled dressing between the lip and gum and another dressing on the outer surface of the lip. Apply ice/cold pack for 15 minutes to reduce swelling and decrease pain. (**Do not** apply ice directly to lip.)
8. If tongue is bleeding, apply a dressing with gentle pressure. Rinse mouth with cold water for 15 minutes to reduce swelling and decrease pain. (**Do not** apply ice directly to tongue.)
9. If tooth has been knocked out, control bleeding and save tooth or tooth fragments. (See **Dental Problems**)
10. If bleeding is external, apply dressing (preferably sterile) with gentle pressure.
11. If bleeding is not severe or injury is not extreme, call parent and recommend follow-up medical care.

NOSE

NOSE BLEEDS

SIGNS AND SYMPTOMS

- ◆ Bleeding
- ◆ Swelling
- ◆ Bruising
- ◆ Choking

TREATMENT

1. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
2. If bleeding is from trauma, see **Head Injury**.
3. If bleeding is not related to trauma, keep individual slightly leaning forward and breathing through the mouth.
4. Loosen anything tight around the neck.
5. Pinch the sides of the nose against the septum (bone in center of nose) for at least 5-10 minutes to allow a clot to form.
6. Tell individual not to blow nose or sniff for 1-2 hours in order to prevent dislodging the clot.
7. If bleeding does not stop in 5-10 minutes or individual has frequent episodes, repeat pressure to septum (#5).
8. Call parent and recommend contact with health provider.

FOREIGN OBJECTS

SIGNS AND SYMPTOMS

- ◆ Pain
- ◆ Swelling
- ◆ Foul odor

TREATMENT

1. **Do not** attempt to remove object.
2. Call parent and recommend follow-up medical care.

SEIZURE

NOTE: Remain calm. A seizure cannot be stopped once it starts. Call **911** unless individual is known to have a seizure disorder (epilepsy) **and** there is a written emergency action plan on file at the school. Parent should be called immediately.

SIGNS AND SYMPTOMS

- ◆ Aura - may experience unusual sensation or feeling immediately preceding seizure, such as:
 - Visual hallucination
 - Bright lights
 - Strange sound
 - Strange smell
 - Strange behavior
 - Daydreaming
- ◆ Loss of consciousness followed by stiffening of entire body for a few seconds followed by a period of jerking.

TREATMENT

1. Call **911** (unless individual has a seizure disorder, then follow written emergency action plan).
2. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
3. If individual is standing or sitting, gently lower to ground to avoid a fall.
4. **Do not** place anything in individual's mouth. Place on side to prevent choking on secretions and blockage of airway by the tongue.
5. Loosen restrictive clothing.
6. If possible, place a cushion or blanket under individual's head.
7. **Do not** hold or restrain individual.
8. Clear area around the individual to prevent injury from sharp objects.
9. **Do not** give food, drink, or medications during a seizure.
10. Remain with individual during the seizure to monitor progress.
11. Observe all of the individual's activity during the seizure, including:
 - ◆ Time the seizure began.
 - ◆ Area of the body where seizure began.
 - ◆ Any movement of the seizure from one area of the body to the other.
 - ◆ Type of movements of the head, face, and arms that occur during the seizure.
12. When the seizure is over:
 - ◆ If necessary, clear secretions from mouth. Turn individual onto side to allow for drainage of secretions.
 - ◆ Monitor breathing.
 - ◆ Determine level of awareness.
 - ◆ Determine individual's ability to move arms and legs.
 - ◆ Provide privacy.
 - ◆ Check for loss of control of urine and stool.
 - ◆ Check for injuries. See appropriate procedures for treatment.
 - ◆ If individual remains unconscious after seizure is over, maintain open airway and continue to assess breathing. If necessary, certified personnel start CPR (see **CPR**).
 - ◆ Keep individual comfortable.
 - ◆ Allow individual to sleep as needed. (May last from 30 minutes to several hours.)
 - ◆ Record the length of the seizure and activity during and after the seizure.

- ◆ If **911** not called, call parent and recommend contact with health provider.

SHOCK

NOTE: Shock occurs when there is inadequate blood flow and oxygen to critical organs including the brain. Causes of shock may be significant blood loss, hypoglycemia (low blood sugar), failure in cardiac output, anaphylaxis, or severe infection. First aid for shock attempts to preserve blood flow to critical organs until EMS arrives. Shock is **life-threatening**.

SIGNS AND SYMPTOMS

- ◆ Altered consciousness (weakness, confusion, drowsiness)
- ◆ Restlessness, anxiety, combativeness
- ◆ Pale, cool, clammy skin
- ◆ Nausea, occasional vomiting
- ◆ Rapid weak pulse (greater than 100 beats per minute)
- ◆ Rapid shallow breathing
- ◆ Extreme thirst
- ◆ Late stage: skin, lips, and area around eyes appear blue

TREATMENT

1. Call **911** immediately.
2. Remain calm.
3. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
4. Control all obvious bleeding by placing firm pressure at site of bleeding.
5. Keep individual warm by covering with blanket to avoid heat loss.
6. If necessary, certified personnel start CPR (see **CPR**).
7. If vomiting occurs, turn individual onto side, rolling body and head as one unit. Clear material from the mouth. **If neck injury is suspected, do not turn individual.**
8. Unless injuries make this inadvisable, lay individual flat with legs elevated 12 inches. **Do not** elevate legs if head and neck injuries are suspected.
9. Individual in shock because of heart attack or with lung disease, may find it easier to breathe sitting up or in a semi-sitting position.
10. Darken room. Avoid rough and excessive handling of individual.
11. **Do not** give anything to eat or drink.
12. Give first aid for any identified cause of shock (e.g., bleeding, burns). See appropriate procedure.
13. Call parent.

SPINAL INJURY

BACK INJURY/NECK INJURY

NOTE: Injuries to the head, neck, or spine can cause paralysis, speech or memory problems, or other disabling conditions. This is **potentially life threatening**.

SIGNS AND SYMPTOMS

- ◆ Severe pain in head, neck, or back
- ◆ Tingling or loss of sensation in hands, fingers, feet, and toes
- ◆ Partial or complete loss of movement of any body part
- ◆ Unusual bumps or depressions on head or spine
- ◆ Difficulty breathing

TREATMENT

1. Determine cause of injury. Spinal injuries should be suspected in all falls, collisions, and impact injuries (e.g., contact sports).
2. Call **911** immediately.
3. **Do not** move individual.
4. If it is necessary to move the individual due to an immediate danger, support the head and move in the direction of the long axis without bending the spine. **Do not** drag sideways.
5. Keep individual warm and comfortable.
6. If bleeding or drainage, wear gloves. Use Standard Precautions (see **Standard Precautions**).
7. If necessary, treat for shock (see **Shock**).
8. If necessary, certified personnel start CPR (see **CPR**).
9. Call parent.

SPLINTERS

SIGNS AND SYMPTOMS

- ◆ Redness or other discoloration
- ◆ Swelling
- ◆ Pain

TREATMENT

1. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
2. Cleanse thoroughly with soap and water.
3. Inspect to determine depth.
4. If protruding from skin, grasp portion protruding above the skin and attempt to gently remove with tweezers. **Do not** probe under the skin with tweezers or other object.
5. Determine individual's tetanus immunization status from school record.
6. If lodged beyond superficial layer of skin, call parent and recommend follow-up medical care.

SPRAINS/STRAINS

SIGNS AND SYMPTOMS

- ◆ Swelling
- ◆ Tenderness
- ◆ Pain upon motion
- ◆ Discoloration

TREATMENT

1. Determine cause of injury.
2. Keep individual warm and comfortable.
3. Immobilize extremity. Support with pillows, blankets, broomstick, uninjured limb, etc.
4. Apply ice/cold pack for 15 minutes to the area. (**Do not** apply ice directly to skin.)
5. If movement does not cause pain, elevate affected part.
6. Call parent and recommend contact with health provider.

VOMITING

TREATMENT

1. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
2. **Do not** give anything to eat or drink.
3. When vomiting stops, position individual comfortably.
4. Call parent and recommend contact with health provider.

WOUNDS

CUTS/SUPERFICIAL ABRASION

TREATMENT

1. Determine cause of injury.
2. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
3. Cleanse thoroughly with soap and water. **Do not** use hydrogen peroxide, alcohol, or other disinfectant.
4. Apply dry dressing (preferably sterile).
5. Determine individual's tetanus immunization status from school record.
6. Call parent and recommend contact with health provider.

DEEP/EXTENSIVE LACERATION

TREATMENT

1. Determine cause of injury.
2. Call **911**.
3. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
4. Control bleeding by covering with gauze dressing (preferably sterile) and applying direct pressure.
5. If necessary, apply more dressings. **Do not** remove original dressing.
6. **Do not** move individual unnecessarily.
7. In case of amputation, see **Amputation**.
8. If no fracture is suspected, elevate the extremity above the level of the heart to help stop bleeding.
9. Determine individual's tetanus immunization status from school record.
10. Call parent.

PUNCTURE

TREATMENT

1. Determine cause of injury.
2. Call **911**.
3. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
4. Use direct pressure to control bleeding.
5. Cleanse thoroughly with soap and water.
6. Apply gauze dressing (preferably sterile).
7. Determine tetanus immunization status from school record.
8. Call parent.

POISONINGS

In cases of poisonings, **contact the regional Poison Center:**

- ◆ **Virginia Poison Center (VCU/MCV Health System): 1-800-222-1222.**
- ◆ **Blue Ridge Poison Center (UVA Health System): 1-800-222-1222.**
- ◆ **National Capitol Poison Center (Washington, DC): 1-800-222-1222.**

The poison center's nurses will assess the situation, determine if there is any risk to the individual, and recommend appropriate care. They can also advise the first aid provider on the need for the individual to be seen by a physician. **Most** cases of accidental poisoning can be managed without referral to a health care facility.

INGESTED/SWALLOWED

NOTE: Ingested poisoning can occur from drug overdoses, medication errors, household and industrial chemicals, and improperly prepared foods. **Call Poison Center.**

TREATMENT

1. If individual is unconscious, in severe respiratory distress, or if directed by **Poison Center**, call **911**.
2. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
3. If necessary, certified personnel start CPR. Avoid direct mouth-to-mouth contact (see **CPR**).
4. If necessary, treat for Shock (see **Shock**).
5. If a potentially caustic or corrosive liquid chemical has been swallowed and individual is not vomiting blood, have individual rinse mouth with water and spit it out several times before giving **only** 4 ounces (1/2 cup) of water to drink. This is the **only** situation in which an individual can have something to drink before calling **Poison Center**.
6. If individual is in no apparent life threatening distress, allow individual to rest.
7. **Do not** give any medication, food, or liquid until told to do so by the **Poison Center**.
8. Call **Poison Center** for additional treatment. Provide following information:
 - ◆ Substance ingested
 - ◆ When ingested
 - ◆ Quantity ingested
 - ◆ Individual's estimated weight
 - ◆ Current symptoms (nausea, vomiting, abdominal pain, etc.)
9. When medical personnel are notified provide them with:
 - ◆ All containers, food, drinking glasses, bottles, etc. found near the individual.
 - ◆ Container of known poison.
 - ◆ Any information known regarding prescription medicine the individual is taking.
10. Call parent.

INHALATION OF GAS VAPORS

NOTE: Inhalation poisoning can result from inhalation of gas vapors and sprays including carbon monoxide, chlorine gas, biological agents, and insect sprays. **Do not enter an unsafe area without protective equipment.**

TREATMENT

1. If individual stops breathing or is in severe respiratory distress, call **911**.
2. If necessary, certified personnel start CPR (see **CPR**).
3. If individual cannot be moved, the room in which the gas/vapor exposure occurred should be ventilated with open windows, fans, etc.
4. Check individual for other injuries. See appropriate procedure for treatment.
5. If there is no injury that indicates individual should not be moved, move to fresh air immediately.
6. Allow individual to rest.
7. Individuals with asthma or other respiratory disease may react to inhaled gas/vapors more severely than others. If an asthma episode occurs, see **Asthma**.
8. **Call Poison Center** for additional advice. Provide following information:
 - ◆ Substance inhaled
 - ◆ When inhaled
 - ◆ Quantity inhaled
 - ◆ Individual's estimated weight
 - ◆ Current symptoms (difficulty breathing, coughing, nausea, vomiting, etc.)
9. Call parent.

OCULAR (EYE) EXPOSURE

NOTE: Eye poisonings can result from exposure to chemical and other toxic substances.

TREATMENT

1. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
2. Immediately rinse out the eye(s) with a gentle, steady stream of tepid water for at least **20 minutes**. When only one eye is affected, position the head so that affected eye is lower than non-affected eye. Remove the poison quickly to prevent corneal injury.
3. Assist individual to keep eyes open while the rinsing is done.
4. **Call Poison Center** for additional treatment advice. Provide following information:
 - ◆ Substance in eye
 - ◆ When exposed
 - ◆ Quantity in eye
 - ◆ Individual's estimated weight
 - ◆ Current symptoms (visual changes, eye pain, etc.)
5. Call parent.

SKIN EXPOSURE

NOTE: Skin poisoning can result from exposure to chemical or biological substances slowly absorbed into blood and body tissues. Avoid touching contaminated area with bare skin.

TREATMENT

1. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
2. Remove any clothing that has become contaminated by the substance(s).
3. If poison is a dry substance, brush off as much as possible before rinsing. Avoid getting poison on your skin.
4. Rinse skin with a steady stream of tepid water for **20 minutes**.
5. If individual is in no apparent life threatening distress, allow individual to rest.
6. **Call Poison Center** for additional treatment advice. Provide following information:
 - ◆ Substance on skin
 - ◆ When exposed
 - ◆ Quantity
 - ◆ Individual's estimated weight
 - ◆ Current symptoms (pain, skin changes, nausea, vomiting, etc.)
7. Call parent.

LEAD PENCIL PUNCTURE WOUND

NOTE: Pencil lead is made of graphite, a carbon compound, and does not contain the metal lead. Graphite has no harmful effect other than staining the skin. Complete removal is difficult.

TREATMENT

1. Wear gloves. Use Standard Precautions (see **Standard Precautions**).
2. If lead is superficially lodged, remove with tweezers.
3. **Do not** push tweezers beneath the skin.
4. Wash with soap and water.
5. Determine individual's tetanus immunization status from the school record.
6. Call parent and recommend follow-up medical care.

CHEMICAL, BIOLOGICAL, RADIOLOGIC, NUCLEAR, OR EXPLOSIVE EVENTS

CHEMICAL, RADIOLOGIC, NUCLEAR, OR EXPLOSIVE EVENTS

Actions:

1. Call **911** immediately.
2. Follow school's Crisis Management Plan.

BIOLOGICAL EVENTS

Actions:

1. Call local health department immediately. They will call police and, if necessary, the FBI.
2. Follow school's Crisis Management Plan.
3. Minimize contact by moving the individual to a private or isolated section of the clinic.
4. If you suspect a communicable disease, wear a gown and gloves. If you suspect that respiratory transmission is possible, use the most efficient mask you have.
5. If the individual is wearing contaminated clothing, do not remove the clothing over the head to avoid contact with the mouth, nose, and eyes.
6. Put contaminated clothing in a sealed plastic bag and place the bag inside of another plastic bag.
7. Have the individual shower or rinse off affected areas. Use plain, clean water. If eyes are involved, flush for several minutes (see **EYES, Chemical Burns**).
8. After individual has removed clothing and rinsed affected areas, individual can dress in clothing that is not contaminated.
9. Obtain a complete listing of all individuals who are in the clinic. Make sure you have contact information for all of them.
10. Call **911**, if necessary.
11. Call parents.

Emergency Care Procedures

CARDIOPULMONARY RESUSCITATION (CPR)

ADULT CPR (for children 8 years old and older and adults)

NOTE: An individual (8 or older) who is not breathing and does not have signs of circulation needs CPR.

1. **Check to see if individual is responsive.**

- Gently shake individual and shout "Are you okay"?

2. **If unresponsive, call 911. If someone is with you, have them call 911.**

3. **Position individual on back.**

- If you suspect individual is injured, support the head and neck and roll as one unit onto back.

4. **Kneel near individual's head.**

5. **Use head tilt-chin lift to open the airway.**

- Tilt head back by lifting chin gently with 1 hand while pushing down on forehead with other hand.
- If individual has possible head or neck injury, use jaw thrust (lift angles of the jaw) to open airway.



6. **Check for breathing.**

- Keep airway open.
- **Place ear next to mouth and nose.**
- **Look** at chest, **listen** and **feel** for air movement to determine if individual is breathing.



7. **If not breathing normally, start rescue breathing:**

- Pinch nose shut.
- Take a deep breath, make a tight seal with your mouth around the individual's mouth.
- Continue head tilt-chin lift.
- Give **2** slow breaths (**2 seconds** each). Watch for chest rising to make sure breaths are going in. If not, retilt the head and try again. Use barrier device if available.

8. **Check for signs of circulation (breathing, coughing, or movement) in response to 2 rescue breaths.** If no response in 10 seconds, trained personnel start CPR.

9. **If individual has signs of circulation but is not breathing normally, continue rescue breathing (1 breath every 5 seconds).**

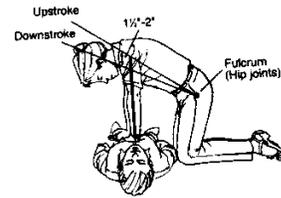
10. **If individual has no signs of circulation and is not breathing:**

- Place heel of one hand in center of chest between nipples.
- Place heel of other hand on top of the first hand. Do not press on tip of breastbone.
- Position your shoulders over your hands and keep elbows straight.



11. Perform **15 chest compressions**.

- A set of **15 compressions** should take about **10 seconds**.
- Compress the chest about **1 ½ - 2 inches**.
- Retilt the head and lift the chin.
- Give **2** slow breaths. (A cycle of **15 compressions** and **2 breaths** should take about **15 seconds**.)
- Do **4** continuous cycles of **15 compressions** and **2 breaths** taking about **1 minute**.



12. **Check for signs of circulation.** If there is still no response, continue sets of **15 compressions** and **2 breaths**. Recheck circulation and breathing every few minutes.

13. **When to stop CPR:**

- If individual is breathing and has signs of circulation. (If no injury, turn individual on side in recovery position)
- If another trained individual takes over CPR for you.
- If EMS arrives and takes over care of the individual.
- If you are exhausted and unable to continue.
- The scene becomes unsafe.

Illustrations reproduced with permission from *BLS Healthcare Providers* 1997 & 1999, American Heart Association.

CHILD CPR (for children ages 1 year to 8 years old)

NOTE: A child who is not breathing and does not have signs of circulation needs CPR.

1. **Check to see if the child is responsive.**

- Gently shake child and shout "Are you okay"?

2. **If alone, give CPR for 1 minute and then call 911. If someone is with you, have them call 911.**

3. **Position child on back.**

- If you suspect child is injured, support the head and neck and roll as one unit onto back.

4. **Kneel near child's head.**

5. **Use head tilt-chin lift to open the airway.**

- Tilt head back by lifting chin gently with 1 hand while pushing down on forehead with other hand.
- If child has possible head or neck injury, use jaw thrust (lift angles of the jaw) to open airway.

6. **Check for breathing.**

- Keep airway open.
- **Place ear next to mouth and nose.**
- **Look** at chest, **listen** and **feel** for air movement to determine if child breathing.

7. **If not breathing normally, start rescue breathing:**

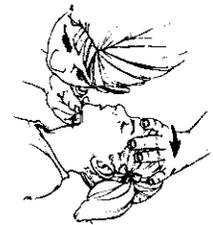
- Pinch nose shut with thumb and forefinger.
- Take a deep breath, make a tight seal with your mouth around the child's mouth.
- Continue head tilt-chin lift.
- Give **2** slow breaths (**1-1 ½ seconds** each). Watch for the chest rising to make sure breaths are going in. If not, retilt the head and try again. Use barrier device if available.

8. **Check for signs of circulation (breathing, coughing, or movement) in response to 2 rescue breaths.** If no response in 10 seconds, trained personnel start CPR.

9. **If child has signs of circulation but is not breathing normally, continue rescue breathing (1 breath every 3 seconds).**

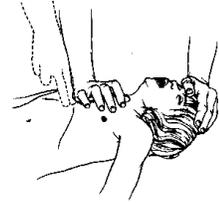
10. **If child has no signs of circulation and is not breathing:**

- Place heel of one hand in center of chest between nipples. Do not press on tip of breastbone.
- Keep other hand on forehead to maintain head tilt to keep airway open.
- When giving CPR to a child, compressions are performed with the heel of **1 hand only**.
- Position your shoulders over your hand and keep your elbow straight.



11. Perform **5 chest compressions**.

- Each series of 5 chest compressions should take about **3 seconds**.
- Compress chest by pushing straight down approximately 1/3 to 1/2 depth of chest.
- After giving **5 compressions**, give **1** slow breath for about **1 1/2 seconds**.
- Repeat cycles of **5 compressions** and **1 breath** for about **1 minute (20 cycles)**.



12. **Check for signs of circulation (breathing, coughing, or movement).**

13. **If there is still no response**

- Leave the child and call 911 if no one has called them (or if the child is small and uninjured, carry the child with you).
- **Resume CPR** with sets of **5 compressions** and **1 breath**. Recheck circulation and breathing every few minutes.

14. **When to stop CPR:**

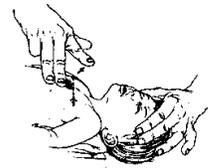
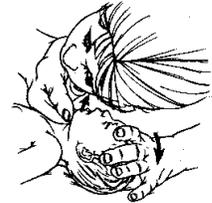
- If child is breathing and has signs of circulation. (If no injury, turn child on side in recovery position)
- If another trained individual takes over CPR for you.
- If EMS arrives and takes over care of the child.
- If you are exhausted and unable to continue.
- The scene becomes unsafe.

Illustrations reproduced with permission from *BLS Healthcare Providers* 1997 & 1999, American Heart Association.

INFANT CPR (under 1 year old)

NOTE: An infant who is not breathing and does not have signs of circulation needs CPR.

1. **Check to see if the infant is responsive.**
 - Gently shake infant and shout "Are you okay"?
2. **If no response (crying, noise) and you are alone, give CPR for 1 minute and then call 911. If someone is with you, have them call 911.**
3. **Position infant on back.**
 - If you suspect infant is injured, support the head and neck and roll as one unit onto back.
4. **Kneel near infant's head.**
5. **Use head tilt-chin lift to open the airway.**
 - Tilt head back by lifting chin gently with 1 hand while pushing down on forehead with other hand.
 - If infant has possible head or neck injury, use jaw thrust (lift angles of the jaw) to open airway.
6. **Check for breathing.**
 - Keep airway open.
 - **Place ear next to mouth and nose.**
 - **Look at chest, listen and feel** for air movement to determine if infant breathing.
7. **If not breathing normally, start rescue breathing:**
 - Take a deep breath, make a tight seal with your mouth around the infant's mouth and nose or hold infant's mouth closed and deliver rescue breaths through nose.
 - Continue head tilt-chin lift.
 - Give **2** slow breaths (**1-1 ½ seconds** each). Watch for the chest rising to make sure breaths are going in. If not, retilt the head and try again. Use barrier device if available.
8. **Check for signs of circulation (breathing, coughing, or movement) in response to 2 rescue breaths.** If no response in 10 seconds, trained personnel start CPR.
9. **If infant has signs of circulation but is not breathing normally, continue rescue breathing (1 breath every 3 seconds).**
10. **If infant has no signs of circulation and is not breathing:**
 - Place **2-3 fingers of one hand** on the center of chest between nipples and one fingerbreadth below nipples. Do not press on tip of breastbone.
 - Perform **5 chest compressions**.
 - Each series of 5 chest compressions should take about **3 seconds**.
 - Compress chest by pushing straight down approximately 1/3 to 1/2 depth of chest.
 - After giving **5 compressions**, give **1** slow breath for about **1 ½ seconds**.
 - Repeat cycles of **5 compressions** and **1 breath** for about **1 minute (20 cycles)**.
11. **Check for signs of circulation (breathing, coughing, or movement).**
12. **If there is still no response**
 - Leave the infant and call 911 if no one has called them (if infant is uninjured, carry the infant with you).
13. **Resume CPR** with sets of **5 compressions** and **1 breath**. Recheck circulation and breathing every few minutes.
14. **When to stop CPR:**



- If infant is breathing and has signs of circulation. (If no injury, turn infant on side in recovery position)
- If another trained individual takes over CPR for you.
- If EMS arrives and takes over care of the infant.
- If you are exhausted and unable to continue.
- The scene becomes unsafe.

Illustrations reproduced with permission from *BLS Healthcare Providers 1997 & 1999*, American Heart Association.

CHOKING

CHOKING - CONSCIOUS CHILD OR ADULT (Speaking, breathing coughing)

Child (ages 1-8) and Adult (age 8 and older)

1. If individual can breathe, cough, or speak, do not interfere.
2. Stay with the individual. Encourage to cough out the obstruction.
3. If individual cannot clear airway by coughing, is unable to speak, breathe, or cough, or if breathing and coughing become weaker and more difficult, call **911** and see **CHOKING CONSCIOUS CHILD OR ADULT: Unable to dislodge object**.



CHOKING - CONSCIOUS CHILD OR ADULT – UNABLE TO DISLODGE OBJECT (Difficulty breathing, weak/faint cough, difficulty speaking)

Child (ages 1-8) and Adult (age 8 and older)

1. **Universal sign of choking** – Individual clutching neck
2. **Ask individual “Are you choking?”**
3. **Perform Heimlich Maneuver if any of the following are present:**
 - Unable to speak;
 - Weak, ineffective cough;
 - High-pitched sound or no sound while inhaling;
 - Increasing difficulty breathing; or
 - Blue lips or skin
4. If someone is with you, have her call **911**.
5. **Heimlich Maneuver**
 - Stand behind individual.
 - Wrap arms around waist. Make a fist with one hand. Place thumb side of fist against middle of the abdomen, just above navel and well below lower tip of breastbone.
 - If individual is pregnant or obese, use chest thrusts instead of abdominal thrusts. Stand behind individual, wrap arms around chest, position hands (one in fist, the other grasping it) on center of breastbone, between nipples. Deliver set of 5 chest thrusts until object is expelled or victim becomes unresponsive.
 - Grasp your fist with your other hand.
 - Provide quick upward thrusts into individual's abdomen.
 - Repeat thrusts until the individual coughs up the object or becomes unresponsive.
6. **If individual coughs up object** and is coughing, breathing, and speaking normally, watch the individual to make sure he or she continues to breathe easily.
7. If a call has not been made, **call 911** now.
8. **If individual becomes unconscious, see CHOKING UNCONSCIOUS CHILD OR ADULT.**



Illustrations reproduced with permission from *BLS Healthcare Providers 1997 & 1999*, American Heart Association.

CHOKING - UNCONSCIOUS CHILD OR ADULT - UNABLE TO DISLODGE OBJECT

Child (ages 1-8) and Adult (age 8 and older)

1. If you are alone, **call 911**. If someone is with you, have him call 911.
2. **Begin CPR (see CPR).**
3. Every time you open airway to provide **rescue breaths**, open the mouth widely. Quickly **look for a foreign body**. If you see an object in the throat, remove it. **Do not perform a blind finger sweep.**
4. If you do not see an object, **continue CPR.**

Illustrations reproduced with permission from *BLS Healthcare Providers* 1997 & 1999, American Heart Association.

CHOKING - CONSCIOUS INFANT

Infant (up to 1 year old)

1. If an infant is coughing forcefully, allow the infant to continue to cough. Watch the infant carefully.
2. If the infant does not stop coughing in a few minutes or if the infant coughs weakly, makes a high pitched sound while coughing, or cannot cry, cough, or breathe, call **911**.
3. **Position the infant:**
 - Place the infant face down and head down on your arm with hand supporting the infant's head and jaw.
 - With other hand, give **up to 5 back blows** with the heel or your hand between infant's shoulder blades.
 - If object not expelled, turn the infant over.
 - Place **two or three fingers** in the center of the breastbone.
 - Give up to **5 chest thrusts**. Each thrust should be about 1/3 to 1/2 chest depth.
4. **Repeat** back blows and chest thrusts until object is coughed up and infant begins to breathe on own.
5. Continue to watch the infant until EMS arrives.
6. **If infant becomes unconscious,**
 - Open airway widely and **look for object**.
 - **Remove it** if you can see it. **Do not do blind finger sweep.**
 - **Begin CPR** (see CPR).



NOTE: Infants who have been treated for choking should always be examined by a physician.

Illustrations reproduced with permission from *BLS Healthcare Providers* 1997 & 1999, American Heart Association.

CHOKING - UNCONSCIOUS INFANT

Infant (up to 1 year old)

- 1. If infant becomes unconscious,**
 - Open airway widely and **look for object.**
 - **Remove it** if you can see it. **Do not do blind finger sweep.**
 - **Begin CPR (see CPR).**

Illustrations reproduced with permission from *BLS Healthcare Providers* 1997 & 1999, American Heart Association.

ACKNOWLEDGEMENTS

The 2003 edition of the flipchart updates information presented in earlier editions of the *First Aid Guide for School Emergencies*. Special recognition is given to the American Heart Association for permitting text and graphics from the publications *Heartsaver CPR: A Comprehensive Course for the Lay Responder* (American Heart Association, 2000) and *Fundamentals of Basic Life Support for Healthcare Providers* (American Heart Association, 1997 and 1999) to be reproduced for this flipchart. Recognition also is given to the Multnomah Education Service District, Portland, Oregon, for permitting information from "General Emergency Procedures," in their publication *MESD, School Health Services, School Emergencies Manual* (Bauer, 1990 and 1994), to be used in the original editions of this flipchart. Additional resources used to revise the flipchart include *Brady Emergency Care, 9th Edition* (Limmer, et. al., 2001), the *Instructor's Edition, Virginia Standard Curriculum for EMS First Responder Basic Program* (Virginia Department of Health, 1998, Rev.), and *Clinical Guidelines for School Nurses, 5th Edition* (School Health Alert, 2002).

A final word of thanks is extended to the expert reviewers for their assistance in developing and revising this document and other participants who provided comments and suggestions to help revise this edition of *First Aid Guide for School Emergencies*. Expert reviewers include Claire Cifaloglio, M.D., Leslie Elwood, M.D., Joanna P. Enoch, R.N., B.S.N.; and SueAnn Fitzpatrick, R.N., M.A. The editor was Carol Pollock, R.N., M.S.N., F.N.P.

This flipchart was developed by the Division of Child and Adolescent Health within the Virginia Department of Health. Major funding for the development and production of *First Aid Guide for School Emergencies* was provided by the Virginia Department of Health through the Maternal and Child Health Services Block Grant, Maternal and Child Health Bureau, Health Resources and Services Administration, Department of Health and Human Resources, U.S. Public Health Services.

