

Guidelines for the Nurse in the School Setting

3rd Edition: 2017



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Assessment and Triage

Assessment Is a Lifesaving Tool

Your importance as a health care provider for the students in your school cannot be overstated. On a daily basis, you may treat 5–10% of the total student population for problems ranging from mild stomach aches or minor lacerations to life-threatening asthma or traumatic brain injury. During the course of a typical school nurse career, you will alleviate pain and prevent suffering on a daily basis, and you will most likely save lives.

When a student experiences emergent illness or injury, your actions can make the difference between permanent disability and full recovery. It is essential to assess the student's condition swiftly and accurately, without overlooking important physical and historical findings. These findings provide the basis for selecting and prioritizing interventions, evaluating the student's response, and determining disposition. A systematic, consistent approach is the key to this process.

Components of a Systematic Assessment

Four major activities

A systematic assessment can be categorized into four major activities, each of which has a specific role in emergency nursing care.

Scene safety assessment

Ensure that it is safe to approach the injured student. Call for backup assistance if necessary.

Across-the-room assessment

Use the Pediatric Assessment Triangle (PAT) (see Figure 1) for your across-the-room assessment. Immediately activate EMS if the situation is obviously emergent.

Primary assessment

Use the C-ABCDE (see Table 1) protocol to identify and treat problems that threaten life, limb, or vision. The primary assessment includes the following components: control hemorrhage/perform CPR, assess airway, breathing, circulation, disability, and expose the injured area briefly for examination.

Secondary assessment

The secondary assessment always follows the primary assessment. Use the FGHI mnemonic (see Table 3) to guide your examination of the student. The secondary assessment includes the following components: measure and record full set of vital signs, give comfort measures/pain assessment, obtain the history and perform a head-to-toe or focused physical exam, and provide interventions as applicable. Inspect, auscultate, percuss, and palpate affected areas to identify or investigate additional problems, and perform ongoing reassessment.

These activities can be adapted to virtually any situation you may face at any time, thereby providing a clear, safe, and consistent basis for clinical decision-making and nursing interventions. The systematic assessment culminates in an accurate triage decision, appropriate interventions, and optimum final disposition.

NOTE You will perform these four components almost simultaneously during an actual emergency, in far less time than it takes to describe them.

Three Additional Actions

Once the emergency is over, the following three activities must be performed:

- Document the incident and collect data
- Evaluate the incident and follow-up the student's disposition and recovery
- Plan for future incidents and prevent reoccurring incidents

This section provides an overview of the steps needed to complete each of these components, including assessment, triage, and post-incident activities. Additional details and examples of how these tools are used in specific situations are the focus of subsequent chapters. Your own experience and common sense integrate the steps into a congruent whole.

Key Points of a Successful Assessment

Three of the techniques that foster a successful approach to assessment are briefly discussed below. You may find it helpful to keep them in mind as you visualize how to apply these steps in your own practice.

Use developmentally appropriate language

KEY POINT

Remember to use developmentally appropriate language when addressing students, especially for younger children.

It is important to talk with the student throughout the assessment process; explain your actions and provide reassurance. Be sure to use developmentally appropriate language and techniques as you interact and communicate with the student. You must also attune yourself to the ways a child could interpret your meaning. For example, if you say "I'm going to take your blood pressure," a child could interpret this to mean that you will literally take away something related to their blood. To prevent misunderstandings, say "I'm going to measure your blood pressure," or "I'm going to give your arm a hug," for younger students.

NOTE Language, culture, technology, and environment may affect the way you implement the assessment process. Enlist special resources as needed to help you communicate effectively with all students.

Gather health history information throughout the process

KEY POINT

If possible, gather focused health history information as you perform each step of the assessment.

As you talk to the student and explain what you are doing, ask questions about the injury or illness you are assessing. Use this technique to gather as much focused health history information as possible while you perform the primary assessment and provide interventions, because this will help you to evaluate your findings more accurately. If the student is unable to respond to your questions, query others who were present when the incident occurred.

Treat significant problems as they are encountered

KEY POINT

It is essential to perform any necessary actions as they are encountered before moving on to the next step of the assessment.

As you progress through the assessment components, it is essential to perform any necessary actions **before** moving on to the next step. Immediately treat life-threatening problems such as uncontrolled hemorrhage, airway obstruction, or inadequate ventilation. These actions will ensure optimal outcome. Be aware that although triage is discussed here as the end result of a complete assessment, in practice you will activate EMS at the **earliest** sign of an emergent situation.

Scene Safety Assessment

Hazards

Before providing aid, you must ensure the safety of yourself, the student, and others who are present. Maintain a constant awareness of circumstances that could affect your own safety or that of others, even when inside the health care office. To determine whether you can safely approach a student after accident or injury, look for the following hazards:

Substances

These include blood or other body fluids, noxious fumes, and toxic chemicals.

Situational dangers

These include an armed perpetrator, hostages, and weapons.

Environmental dangers

These include unstable structures, fires, electrical hazards, or other potential mechanisms of injury.

KEY POINT

Never place yourself in danger. If you cannot control a hazard, do not approach the student.

Never place yourself in danger. If you cannot control hazards, **do not** approach the student—call 911 or your local emergency number to activate backup assistance.

Resources

If the situation does not appear hazardous, you may find it useful to consider briefly whether you have the equipment and resources you need to manage the incident. For example, you might call for

- Additional personnel to help you with interventions or to manage bystanders
- Personal protective gear or specialized equipment that is not in your portable emergency kit, such as an automated external defibrillator (AED), backboard, cold packs, or splints

NOTE Always be prepared for unexpected emergencies. Carry disposable gloves and a resuscitation mask at all times, and make sure these items are available in key locations for anyone who might need them.

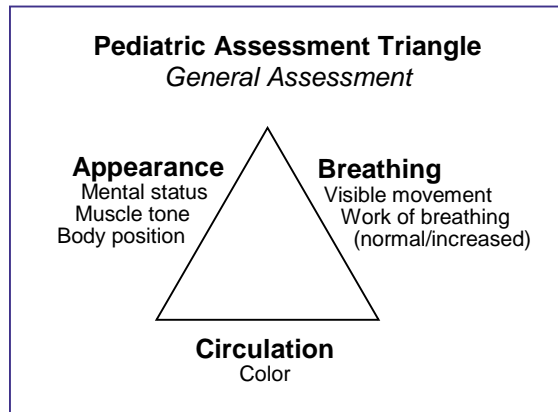
Across-the-Room Assessment

Quickly Evaluate the Student's Condition

KEY POINT

The across-the-room assessment is a quick overall appraisal of the student's condition based on appearance, breathing, and circulation.

FIGURE 1. PEDIATRIC ASSESSMENT TRIANGLE



Reprinted with permission from Tunik et al. (2006) *Teaching resource for instructors in prehospital pediatrics—Basic life support* (2nd ed.).

Across the room assessment is a natural continuation of the scene safety assessment while also focusing your attention on the student. You will briefly evaluate the student for appearance, breathing, and circulation using the pediatric assessment triangle (PAT) as illustrated in Figure 1. The PAT allows you to rapidly decide how quickly you must proceed with further assessments and interventions.

During the subsequent primary assessment, you will perform a hands-on evaluation of the student's appearance, breathing, and circulation, and undertake any necessary interventions. The most crucial action during the primary assessment is to form an overall impression of vital functions.

Appearance

Appearance refers to mental status, muscle tone, and body position. Mental status is based on the student's level of consciousness and interactions with others. Appearance can be assessed using the mnemonic TICLS (pronounced as "tickles"), which stands for tone, interactiveness, consolability, look, and speech. Ask yourself the following questions:

- **Tone:** Is there evidence of normal muscle tone (e.g., sitting or standing upright, ability to walk), or does the student appear limp?
- **Interactiveness:** Does the student seem appropriately responsive to others (e.g., looking around, responding to questions), or does the student appear to be dull and apathetic?
- **Consolability:** Is the student hysterical? Can the student be consoled?
- **Look:** Does the student make eye contact? Or do they appear to stare off vacantly?
- **Speech:** Is the student speaking clearly? Is there a vocal change such as a hoarse or muffled tone?

Breathing

Breathing refers to the presence or absence of visible movement at the chest or abdomen and work of breathing.

- Can you confirm at a glance if the student is breathing?
- Is there evidence that the student is working hard to maintain adequate ventilation (e.g., flaring nostrils, retractions, or difficulty speaking)?

Circulation

Circulation refers to visible skin color, which is an indication of perfusion to vital organs.

- Does the student's skin color appear normal?
- If not, does the skin color appear pallid, dusky, mottled, cyanotic, or flushed?

Assessment Conclusions

Combine the evidence of your observations with your experience and intuition to form a first impression of the student's level of distress. Compared with baseline, does this student look well, ill, or seriously ill? Take into account any clearly visible signs and symptoms of illness or injury, such as emesis, bleeding, deformities, or expressions of pain.

Next Steps

If the student's condition is clearly emergent—for example, the student is struggling to breathe, turning dusky or cyanotic, exhibiting seizure activity, or bleeding profusely—activate EMS immediately, then approach the student and proceed with the primary assessment and interventions.

Primary Assessment

C-ABCDE Assessment

The C-ABCDE assessment focuses on airway, breathing, circulation, disability (neurological status), and a brief physical exposure to examine parts of the body directly related to the chief complaint. The first C step is a reprioritization by the American Heart Association to control hemorrhage and begin CPR as indicated before beginning the assessment. An overview of the C-ABCDE assessment is presented in Table 1.

Consider that many factors in addition to illness or injury can contribute to deviations from the norm as you interpret your assessment findings. It is important to be aware of these factors so that you can take them into account. For example, consider the following:

- Certain medications can cause the breathing rate and heart rate to be fast or slow
- A cold ambient temperature can delay capillary refill and affect other skin findings
- Fear, fever, and pain typically increase the respiratory rate and heart rate
- Students with certain chronic conditions may have baseline vital signs that fall outside the normal range for their age

Children's vital signs vary by age; therefore, subtle abnormalities can be overlooked. During the primary assessment, you are looking primarily for overt discrepancies that are consistent with emergent and urgent conditions. If none are present, you will have time to subsequently assess less obvious signs during the secondary assessment and focused physical examination.

KEY POINT

The goal of the primary assessment is to identify and treat life- and limb-threatening emergencies. Activate EMS as soon as the need becomes evident.

The goal of the primary assessment is to identify and treat life- and limb-threatening emergencies. As you progress through the assessment, provide interventions as necessary to maintain the airway, breathing, and circulation before continuing to the next step. If at any time the student cannot maintain airway patency, adequate ventilation, or adequate perfusion, or there is evidence of uncontrolled hemorrhage, immediately activate EMS. Notify the parent/guardian as soon as you are able to do so.

TABLE 1. PRIMARY C-ABCDE ASSESSMENT

	Assessment	Interventions
C	<i>Control hemorrhage and perform CPR as indicated</i>	In cases where obvious hemorrhage is occurring or if the student is pulseless, the priority of assessment changes. Control the bleeding before proceeding with primary assessment. If no obvious bleeding is observed, continue the ABCDE assessment. If the student is pulseless, begin compressions and follow the CAB sequence.
A	Airway <i>Observe position, sounds, and possible obstruction.</i>	Restrict the motion of the cervical spine if trauma is suspected or mechanism of injury is unknown. Open airway if necessary; use jaw-thrust or chin-lift procedures as appropriate. Position student to maintain airway patency. Look and listen for signs of obstruction. Perform airway-clearing maneuvers as indicated.
B	Breathing <i>Observe rate, depth, pattern, symmetry, sounds, work of breathing, odors, and possible injuries.</i>	If student is breathing spontaneously, allow the student to remain in a position of comfort that promotes the best ventilation. Give oxygen as tolerated if available. Provide mouth-to-mask ventilation if needed.
C	Circulation <i>Observe heart rate, pulse quality, capillary refill time, skin color, temperature, moisture, and possible bleeding.</i>	Continue CPR as needed. Control uncontrolled external bleeding with direct pressure or pressure dressings. If bleeding occurs in an extremity, elevate the affected limb. If uncontrolled external bleeding is noted at any point during the assessment, controlling the bleeding takes priority over other interventions.
D	Disability (neurological status) <i>Determine level of consciousness using the alert, verbal, painful, unresponsive (AVPU) scale; observe pupillary response.</i>	Provide reassurance, position to maintain comfort, and give oxygen if available.
E	Exposure with environmental control to prevent heat loss <i>Observe and inspect for additional emergent problems.</i>	Treat wounds or other findings as appropriate. Treat as necessary to maintain normothermia. Cover student with blankets after initial exposure.

NOTE Always observe standard precautions to prevent exposure to body fluids during a physical examination.

Spinal Motion Restriction

If there is any possibility of injury to the head or spine, provide manual motion restriction of the cervical spine before you begin the airway assessment. Maintain spinal motion restriction until EMS personnel arrive.

Airway

Assess the student's airway for patency by considering the questions below. Remember to restrict the motion of the neck if the student suffered a traumatic injury or if the mechanism of injury is unknown.

- Can the student vocalize?
- Are there secretions or material obstructing the airway?
- Is edema present?

Open the student's mouth and inspect for sources of airway obstruction. Manually open the airway using a head-tilt chin-lift or jaw-thrust if needed. The jaw-thrust is the preferred technique to open the airway if trauma is suspected. Maintain cervical spine motion restriction for any student with suspected trauma or unknown mechanism of injury.

Interpreting your findings

Consider the following possible causes as you interpret your findings:

- Drooling or inability to talk may indicate upper airway edema from infection or anaphylaxis
- Stridor (a crowing sound on inspiration) indicates upper airway obstruction
- Facial injuries can compromise the airway

Breathing

- Assess the respiratory rate (e.g., normal, fast, slow, or apnea), the depth and pattern of breathing (e.g., shallow, gasping, or irregular), and the bilateral symmetry of chest movement
- Listen for adventitious breath sounds such as wheezing or grunting
- Watch for signs that indicate increased work of breathing (e.g., retractions, nasal flaring, or difficulty speaking)
- Assess any unusual breath odors (e.g., fruity, or reminiscent of petroleum products, tobacco, or alcohol)
- Evaluate chest wall integrity, and note any obvious injuries

Interpreting your findings

- Increased work of breathing and audible breath sounds indicate respiratory compromise
- Fast breathing is an early compensatory mechanism for hypoxia; breathing slows as hypoxia worsens
- Decreased, absent, or unequal breath sounds may indicate airway obstruction, a pneumothorax, hemothorax, or atelectasis
- Grunting is a late sign of severe respiratory distress that is worsening into respiratory failure

Circulation

During the circulation assessment, you will

- Assess heart rate and quality of pulses
- Evaluate perfusion by assessing
 - Capillary refill time (normally less than 2 seconds)
 - Skin color (e.g., normal, pallid, dusky, mottled, cyanotic, or flushed)
 - Skin temperature and moisture (e.g., warm, dry, cool, or clammy)
- Look for active bleeding (e.g., none, minor, moderate, profuse, controlled, or uncontrolled)

Heart rate and quality of pulses

Measure heart rate by palpating the central and peripheral pulses. Evaluate the pulse quality and note discrepancies between the central and peripheral pulses. The pulse points are shown in Figure 2. You will not measure the student's blood pressure until the secondary assessment.

Perfusion

Capillary refill time

Assess capillary refill at distal extremities with the limb positioned so that it is level with the heart. Firmly press and release the skin to blanch the underlying capillary bed. Color should return in less than 2 seconds.

Color

Inspect the skin color at the lips and tongue. Note whether the skin color seems normal, pale, flushed, mottled, or cyanotic.

NOTE To assess skin color in students with dark skin pigmentation, check the nail beds, palms, or mucous membranes.

Temperature

Feel skin temperature at the extremities and compare with skin temperature at the central body regions. If skin is either unusually hot or cold, this is a significant finding.

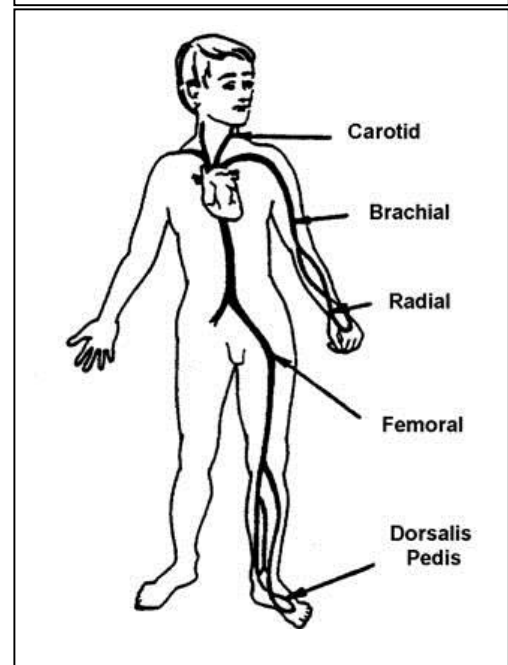
Moisture and quality

Assess the skin for signs of unusual dryness or clamminess. Pinch the skin gently to check for normal elasticity.

Bleeding

Look for profuse external bleeding. If found, control hemorrhage before resuming assessment.

FIGURE 2. PULSE POINTS



[Interpreting your findings](#)

- Tachycardia is usually the earliest sign of developing shock in children; tachycardia combined with a fast respiratory rate is a strong indicator of compensated shock (further details are presented in Chapter 6: Shock)
- Thready or weak pulses, cool or clammy extremities, and delayed capillary refill time are associated with shock
- A discrepancy between the quality of central and peripheral pulses may be an early sign of decreasing stroke volume
- Hypotension with bradycardia is a late, ominous sign of decompensated shock
- Skin that is inelastic and prone to tenting usually signifies dehydration

Disability

The disability assessment is a brief evaluation of neurological function. First assess the level of consciousness using the alert, verbal, painful, and unresponsive (AVPU) scale (Table 2), and then evaluate pupil size and reactivity.

TABLE 2. AVPU SCALE

	Mnemonic / Topic	Associated Findings
A	Alert	The student is awake and able to speak or interact spontaneously.
V	Verbal	A verbal stimulus elicits some response; for example, the student's eyes may open when you call loudly, or agitation may lessen in response to a command.
P	Painful	The student responds to a painful stimulus by moaning, crying, or withdrawing from pain.
U	Unresponsive	The student shows no response to verbal or painful stimuli.

[Interpreting your findings](#)

The level of consciousness is an important indicator of adequate perfusion. A significant reduction in responsiveness is an ominous sign in a student with an illness or injury that may cause respiratory compromise or shock.

Exposure

Remove clothing as needed to briefly assess specific factors related to the presenting problem, such as injuries, rashes, bites, or stings. Watch for signs of internal hemorrhage. Control ambient temperature if possible or drape the student with coverings as necessary to prevent heat loss. Replace clothing as soon as you are able to do so.

Secondary Assessment

After completing the primary assessment and addressing all immediate threats to life and limb, you will then move directly to the secondary assessment. The secondary assessment is guided by the FGHI mnemonic, which is presented in Table 3.

Full Set of Vital Signs

Your goal during the secondary assessment is simply to identify any clearly abnormal vital signs that suggest an emergent condition. Establishing baseline vital signs during the secondary assessment is essential for the triage determination (discussed in the following section) and ongoing reassessment. Baseline vital signs are important elements for the continuity of care if the student is referred for further medical evaluation and treatment. Normal vital signs vary with the student's age (Table 4).

Other factors that can affect normal vital signs include chronic medical conditions, physical disabilities, medications, environmental conditions, and the student's emotional state.

Measuring blood pressure

To accurately measure blood pressure (BP), use a cuff that is two-thirds as wide as the student's upper arm from the elbow to the axilla. If you do not have a table of normal blood pressure rates, you can use the following formula to approximate the lowest acceptable limit for systolic blood pressure for children older than 1 year:

$$\text{BP should be } > 70 + (2 \times \text{age in years})$$

TABLE 3. SECONDARY ASSESSMENT: FGHI MNEMONIC

Mnemonic / Assessment		Comments
F	Full set of vital signs	Measure and document baseline vital signs, including blood pressure, heart rate, respiratory rate, and temperature. If possible, measure and document weight and blood glucose level.
G	Give comfort measures/pain assessment	Complete a pain assessment. Perform interventions to alleviate pain, such as applying a cold pack, immobilizing a suspected fracture, or dressing a wound.
H	History Head-to-toe assessment/focused physical examination <i>Inspect, palpate, auscultate (can be partial or complete)</i>	Obtain history. Perform a head-to-toe examination or specialized focused assessment procedures as indicated, such as cranial nerve assessments, abdominal palpation, or range-of-motion assessments.
I	Isolate Injuries Additional Interventions	Assess the potential for communicable disease and isolate as indicated. If you find injuries at varying stages of healing, consider the possibility of child maltreatment. Provide additional interventions according to your findings.

TABLE 4. PEDIATRIC VITAL SIGNS BY AGE

Age	RR	HR	BP
Neonate (birth–30 days)	30–60	100–180	60–90
Infant (1–12 months)	24–50	100–160	70–100
Toddler (1–3 years)	24–40	90–150	70–105
Preschooler (3–5 years)	20–30	80–140	75–105
School-aged (5–12 years)	18–30	65–120	80–120
Adolescent (12 years and older)	12–20	60–100	90–128

RR, respiratory rate; HR, heart rate; BP, systolic blood pressure (mm Hg).

NOTE Do not rely solely on blood pressure to indicate the severity of the student's condition. Children can maintain normal blood pressure until decompensated shock is imminent.

Temperature and other measurements

Measure and record the student's temperature. If possible, also measure and record the student's weight and blood glucose levels.

Temperature conversion

Use the following formulas or Table 5 to convert temperatures between Fahrenheit and centigrade:

- To convert centigrade to Fahrenheit: $(1.8 \times ^\circ\text{C}) + 32 = ^\circ\text{F}$
- To convert Fahrenheit to centigrade: $(^\circ\text{F} - 32) \times 0.556 = ^\circ\text{C}$

Give Comfort Measures/ Pain**Assessment**

Pain has been referred to as the fifth vital sign because of its significance in assessing pathophysiology. The PQRST assessment tool (Table 6) outlines a detailed, systematic interview that can be used to identify clinically significant aspects of pain.

Severity may be the most challenging aspect of pain to assess because it is largely a subjective determination. Various assessment tools can help students quantify the severity of their pain; it is important to select a tool that is suitable for the student's age, cognitive development, and cultural background. For example, school-aged children with

average developmental abilities can often rate their pain using a simple numerical scale such as "On a scale of 0 to 10, if 0 is no pain at all and 10 is the worst pain you've ever felt, tell me how bad the pain is right now." For younger students (aged approximately 3 years and older), those who are less comfortable with numbers, and those who lack the cognitive skills to describe pain using a number scale, the Wong-Baker FACES Pain Rating Scale may be used (Figure 3). The FACES scale allows a student to point to a cartoon face with an expression that reflects the student's pain experience. For infants and those with developmental impairment or other impediments to verbal communication, pain may be assessed by observing behavioral cues (e.g., facial grimace) and physiologic parameters (e.g., heart rate).

Comfort measures should be provided for students in pain. These measures can include applying a cold pack, stabilizing suspected fractures, and dressing wounds.

TABLE 5. TEMPERATURE EQUIVALENTS

$^\circ\text{C}$	$^\circ\text{F}$	$^\circ\text{C}$	$^\circ\text{F}$
34.2	93.6	38.6	101.5
34.6	94.3	39.0	102.2
35.0	95.0	39.4	102.9
35.4	95.7	39.8	103.6
35.8	96.4	40.2	104.4
36.2	97.2	40.6	105.1
36.6	97.9	41.0	105.8
37.0	98.6	41.4	106.5
37.4	99.3	41.8	107.2
37.8	100.0	42.2	108.0
38.2	100.8	42.6	108.7

C, centigrade; F, Fahrenheit.

TABLE 6. PQRST PAIN ASSESSMENT

Assessment Points	
P	<ul style="list-style-type: none"> Problem: How does the student describe the chief complaint? Provoke: What makes the pain worse? Palliate: What makes the pain better?
Q	<ul style="list-style-type: none"> Quality: What is the quality or character of the pain?
R	<ul style="list-style-type: none"> Radiate: Does the pain or discomfort seem to travel or move?
S	<ul style="list-style-type: none"> Severity: Using a developmentally appropriate assessment tool (e.g., numerical or FACES^a scale), how does the student rate the severity of pain or discomfort? Signs: What clinical signs accompany the problem? Symptoms: What subjective problems does the student report?
T	<ul style="list-style-type: none"> Timing: When did the pain start? Was the onset sudden or gradual?

^a FACES is the Wong-Baker FACES Pain Rating Scale.

FIGURE 3. WONG-BAKER FACES PAIN RATING SCALE

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History and Head-to-Toe/Focused Physical Examination

History

Information gathered from the health history helps you form a care plan. You may already be familiar with the student's history from information supplied by the parent/guardian, primary health care provider, and school staff, or from previous interactions with the student. Ensure that you understand the student's current health issues, and obtain specific details relevant to the injury or illness.

NOTE For younger students, obtain the health history from the parent/guardian or from the student's health record.

Some useful mnemonics that will help you work through the health history assessment are SAMPLE, a health history tool (Table 7). CIAMPEDS (pronounced "see I am peds") is another useful history tool.

Head-to-toe/focused physical examination

The physical examination may be partial (focusing on the site of illness or injury) or complete (head-to-toe). The choice depends on the circumstances, the student's health status, and applicable protocols.

Isolate, Injuries, and Additional Interventions

Assess the potential for communicable disease and isolate as indicated. Provide appropriate and additional interventions according to your findings.

TABLE 7. SAMPLE HISTORY

	Mnemonic / Topic	Questions
S	Symptoms <i>Ask the student to describe current symptoms, particularly pain.</i>	<ul style="list-style-type: none"> What problem brings the student to the health office? How long has the problem persisted? If an injury, how and when did it occur? Does the student have pain, apprehension, or guarding? What are the location, quality, and duration of pain? Does repositioning make the pain better or worse? What strategies make other symptoms better or worse? What is the student's impression of his or her condition?
A	Allergies	<ul style="list-style-type: none"> Does the student have any known allergies to food, medications, latex, other materials, or environmental elements such as bee stings?
M	Medications <i>List medications the student takes regularly, including dosage regimen and time of the last dose.</i>	<ul style="list-style-type: none"> Is the student using any prescription, over-the-counter, home, herbal, or cultural remedies? For what reasons? When was the last dose taken? Did the student take any medications before coming to the health office? What was the result? Has the student used any illicit drugs? When?
P	Past health history <i>Note preexisting physical or psychological disabilities, previous trauma, and chronic conditions. Check immunization status, including tetanus prophylaxis.</i>	<ul style="list-style-type: none"> Does the student have a chronic illness (e.g., asthma, diabetes, hemophilia, or seizure disorder)? Does the student have special health care needs?^a Does the student rely on a medical device (e.g., oxygen, tracheostomy, nebulizer, central venous line, or gastrostomy tube)? Are immunizations up to date? Is isolation necessary (e.g., pediculosis, varicella exposure, or immunosuppression)? If a student is of child-bearing age or has experienced menarche, when was her last menstrual period? Is she pregnant, or is there a possibility of pregnancy?
L	Last meal <i>Document when and what the student last ate or drank.</i>	<ul style="list-style-type: none"> Is the student able to eat? When was the last meal? Has there been any nausea, vomiting, or diarrhea? Is bowel and bladder function normal?
E	Events <i>Ask the student to describe the events that led up to the illness or injury.</i>	<ul style="list-style-type: none"> When did the problem begin? Were there precipitating factors? If an injury occurred, were there witnesses? What did they report?

^a You may need to modify your evaluation of assessment findings for students with special needs, because their baseline findings may differ from accepted averages.

Triage

Principles of Triage

School nursing practice is unpredictable. There may be times when you have several students and staff or visitors waiting in the health office, some reporting for scheduled interventions, others presenting with unexpected problems. You also must respond to episodes of acute illness or injury arising elsewhere around the facility. Consequently, you must be able to determine quickly who needs immediate intervention and who can wait. You will not always treat your students and other health care consumers in the order of arrival. Instead, you must treat them according to the seriousness of the presenting illness or injury, and place those with critical conditions ahead of others. Triage (derived from the French word meaning to sort) provides an objective way to do this.

Based on your primary assessment findings, you can classify students into emergent, urgent, or nonurgent categories according to whether the condition has the potential to threaten life, limb, or vision. Specific treatment priorities and dispositions are associated with each triage category. If the student's condition changes during ongoing monitoring and reassessment, the triage category may be changed as appropriate. It is better to overtriage than to undertriage, particularly if your intuition tells you that there could be a significant underlying problem. Experience also can help you decide if your triage determination should be upgraded. For example, if a student who has a history of severe asthma presents with mild dyspnea, you might immediately consider this student's condition emergent and activate EMS transport based on previous events during which the student rapidly developed respiratory distress.

KEY POINT

Do not delegate tasks related to the primary assessment and triage. Only an experienced registered nurse has the expertise to accurately categorize ill and injured students.

Although you may delegate tasks associated with ongoing health care, do not delegate tasks related to the primary assessment and triage. Only an experienced registered nurse has the requisite knowledge and expertise to quickly recognize and accurately categorize ill and injured students.

Performing Triage

Table 8 describes the three commonly recognized triage categories (emergent, urgent, and nonurgent) and presents examples of illnesses and injuries that fall within each category.

Ongoing Monitoring and Reassessment

Ongoing monitoring and reassessment are an essential part of nursing care. Your initial triage decision allows you to formulate a nursing diagnosis and develop the care plan. However, you may need to adjust the triage category and disposition after evaluating the student's response to interventions and determining whether health status has improved or worsened. This may determine the mode of transport, whether via EMS or by car with the parent/guardian. A student whose condition initially appeared nonurgent may abruptly deteriorate, which requires immediate attention. Therefore, it is crucial that you conduct frequent reevaluations and arrange for ongoing monitoring and observation while you are busy elsewhere. Follow applicable protocols regarding appropriate monitoring using assessment tools as outlined in this chapter.

Final Disposition

Once your assessment is complete, you will form a triage decision and come to a conclusion about the student's disposition. Disposition typically includes the following options:

- Student returns to class
- Observe the student in the school health office for a period of time
- Contact the parent/guardian to transport the student home, to their primary care provider's office, or to an emergency care facility
- Contact EMS to transport the student to an emergency care facility

TABLE 8. TRIAGE CATEGORIES, EXAMPLES, AND DISPOSITION

Category	Examples	Disposition
Emergent <i>Student requires immediate medical attention. Condition is acute and potentially threatens life, limb, or vision.</i>	<ul style="list-style-type: none"> ▪ Cardiopulmonary arrest ▪ Altered mental status ▪ Burns, severe or major ▪ Caustic chemical exposure ▪ Childbirth, imminent ▪ Head injury, history of loss of consciousness ▪ Pain, severe or significant location (e.g., chest) ▪ Poisoning or drug overdose ▪ Respiratory distress (severe) or respiratory failure ▪ Shock, any type ▪ Spinal cord injury, suspected ▪ Status epilepticus or first-time seizure ▪ Threatens harm to self or others ▪ Trauma, severe; trauma to limb, no distal pulse 	<ul style="list-style-type: none"> ▪ Monitor^a in health office ▪ Transport to emergency care facility via ground or air EMS
Urgent <i>Student requires additional medical intervention within 2 hours. Condition is acute but not severe or life-threatening.</i>	<ul style="list-style-type: none"> ▪ Burns, minor ▪ Deformity or suspected closed fracture without circulatory compromise ▪ Febrile illness (T exceeds 100°F/37.8°C) ▪ GI symptoms (e.g., nausea, vomiting, or diarrhea) ▪ Lacerations requiring sutures without excessive blood loss ▪ Pain, moderate, after abdominal trauma ▪ Seizure, atypical, in student with history of seizures ▪ Wheezing 	<ul style="list-style-type: none"> ▪ Monitor in health office ▪ Transport to emergency care facility via EMS, parent/guardian, or other adult as appropriate
Nonurgent <i>Student may require referral for routine medical care. Minor or nonacute condition.</i>	<ul style="list-style-type: none"> ▪ Essentially well; S/S of mild no communicable illness or URI ▪ Headache without fever or abnormal findings ▪ Injury, minor (e.g., abrasions, ecchymosis, muscle sprains, or muscle strains) ▪ Pain, mild (e.g., abdominal or menstrual pain, headache or toothache) 	<ul style="list-style-type: none"> ▪ Monitor in health office ▪ Contact parent/guardian ▪ Return student to class or send home as indicated

^a Monitoring should be performed by the school nurse. EMS, emergency medical services; F, Fahrenheit; C, centigrade; GI, gastrointestinal; S/S, signs/symptoms; T, temperature; URI, upper respiratory infection.

Completing the Process

Documentation and Data Collection

Document your assessment findings and triage category in the student's health record. List your interventions, the student's response, and record the final disposition. Transfer all relevant information to prehospital care providers such as permission to treat the student, allergies, medications, immunizations, and contact information. This information will be included in their report to emergency department personnel. Collect and analyze data to identify injury and illness patterns so that you can monitor and prevent recurrences.

Follow-Up

If possible, follow up any student health care incident with the student's primary health care provider, the emergency department physician, the prehospital care professionals, and the parent/guardian. Document the outcome in the student's health record and incident report as appropriate.

Prevention

Prevention should be considered the final component in any health care visit. You have an instrumental role in initiating and maintaining measures to minimize the effects of injury or illness and reduce the risk of inaccurate triage decisions. This includes the following actions:

- Establish written triage guidelines or protocols
- Designate experienced registered nurses to perform triage
- Maintain knowledge and practice requirements related to triage and decision-making skills
- Know which students have emergency care plans on file and review the necessary interventions with others who may be responsible for carrying them out
- Develop and maintain individualized health care plans and emergency care plans for students with special needs
- Ensure that crucial information from these guidelines, protocols, and care plans is shared with teachers, aides, coaches, and lunchroom or playground monitors as appropriate

NOTE Under the Family Educational Rights and Privacy Act, parent/guardian consent is not required before sharing student health records with school personnel provided they have a legitimate educational interest in the student or a need to know the information to protect the student's welfare.

Students with Special Needs

Although the pediatric assessment techniques outlined in this chapter are equally applicable to students who have special health care needs, you must adjust the techniques to accommodate the student's developmental age rather than their chronological age. Be aware that day-to-day baseline vital signs for a student with a chronic condition may be outside the range of same-age peers who do not have special needs.

As a school nurse, you observe the day-to-day variations among your school's students, and are often the first to notice changes in a student's condition. It is particularly important to become familiar with the baseline status of a special needs student so that you can identify when the student's condition has changed.

Use developmentally appropriate language, gestures, and techniques when communicating with a student who has cognitive impairment or developmental delay. When assessing students who depend

on the use of specialized devices and instruments, do not allow yourself to be distracted by the equipment. Your focus should always be directed toward the student.

Summary

One of your primary responsibilities as school nurse is to recognize severe illness or injury among the students in your school. It is best to do this using a systematic, consistent assessment schema. Your primary assessment findings give you a basis for determining the urgency of each student's condition through triage. Triage categories allow you to treat students according to their acuity of need. Written triage protocols and policies are important to facilitate this process.

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School Nurse Protocols

This section contains protocols to guide school nurses as they assess and manage students with emergency health issues in the school setting. However, the recommendations in this document are not intended to indicate an exclusive course of treatment or to be applicable in all circumstances.

We recommend that you use this document as a guide for developing local school policies and protocols.

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Systematic Assessment/Immediate Care

Every nursing encounter begins with a systematic assessment. The **four components** of a comprehensive systematic assessment are listed below. Suggested actions should be performed if indicated and in accordance with applicable protocols and available resources. **Provide any necessary interventions before progressing to the next step of the assessment.** These assessment components will be used for essentially every nursing encounter, and it is important to become completely familiar with each component. It will be useful to keep this information in an easily accessible location for continual reference. See Chapter 3: *Assessment and Triage* for a detailed review of the assessment process.

NOTE

Triage determination and EMS activation should occur as soon as the need becomes apparent.

SCENE SAFETY ASSESSMENT

Call for assistance as indicated before proceeding.

ACROSS-THE-ROOM ASSESSMENT

Use the Pediatric Assessment Triangle (PAT)

- **Appearance: TICLS** - **T**one, **I**nteractiveness, **C**onsolability, **L**ook, and **S**peech
- **Breathing:** Work of breathing (nasal flaring and retractions); abnormal airway sounds
- **Circulation:** Visible skin color

PRIMARY (C-ABCDE) ASSESSMENT/IMMEDIATE INTERVENTIONS

- Standard precautions
- Restrict motion of cervical spine
- Control obvious hemorrhage ▪ CPR as applicable
- **A**irway, positioning
- **B**reathing, O₂, mouth-to-mask
- **C**irculation, control bleeding ▪ CPR/AED
- **D**isability, **AVPU**, pupil check
- **E**xposure, brief inspection

SECONDARY (FGHI) ASSESSMENT

- Full set of vital signs, temperature, weight, and blood glucose
- Give comfort measures/pain assessment
 - **PQRST** pain assessment ▫ Numerical pain scale ▫ **FACES** visual pain scale
- **H**istory and **H**ead-to-toe/focused physical examination
 - **SAMPLE** history: **S**ymptoms, **A**llergies, **M**edications, **P**ast health history, **L**ast food/drink, **E**vents
 - Complete or limited physical examination: Inspect, Auscultate, Percuss, Palpate
- **I**solate, **I**njuries, and **A**dditional **I**nterventions
 - Isolate for communicable diseases; perform additional interventions based on findings

TRIAGE (E-U-N)

- **E**mergent: Activate EMS
- **U**rgent: Determine need for EMS
- **N**onurgent: Return to class or send home

Assessment Tools

These assessment tools will be used for essentially all protocols and nursing encounters. It will be useful to become completely familiar with them and always have them readily available for reference.

SYSTEMATIC ASSESSMENT

NOTE: Perform interventions AS YOU GO. Determine triage/activate EMS at EARLIEST INDICATION of need.

Scene safety assessment

- Call for assistance as indicated

Across-the-room assessment

Use Pediatric Assessment Triangle (PAT)

- **A**ppearance ▪ **B**reathing ▪ **C**irculation

Primary C-ABCDE assessment

- Standard precautions ▪ Spinal motion restriction
- Control hemorrhage/CPR ▪ **A**irway ▪ **B**reathing
- **C**irculation ▪ **D**isability^a ▪ **E**xposure

Secondary FGHI assessment

- Full set of vital signs, temperature, weight, and blood glucose ▪ Give comfort measures/pain assessment (PQRST, FACES) ▪ History (SAMPLE) and head-to-toe/focused physical examination (inspect, auscultate, percuss, palpate) ▪ Isolate, injuries, other interventions

Triage

- **E**mergent ▪ **U**rgent ▪ **N**onurgent

^aDisability assessment

- Assess responsiveness (**AVPU**):
 - A** Alert
 - V** Responds to **V**erbal stimulus
 - P** Responds to **P**ainful stimulus
 - U** Unresponsive
- Assess pupils
- Assess for transient paresthesia

PEDIATRIC VITAL SIGNS BY AGE

Age	RR	HR	BP
Neonate (birth–30 days)	30–60	100–180	60–90
Infant (1–12 months)	24–50	100–160	70–100
Toddler (1–3 years)	24–40	90–150	70–105
Preschooler (3–5 years)	20–30	80–140	75–105
School-aged (5–12 years)	18–30	65–120	80–120
Adolescent (12 years and older)	12–20	60–100	90–128

RR, respiratory rate; HR, heart rate; BP, systolic blood pressure (mm Hg)

INDICATORS OF CARDIOPULMONARY COMPROMISE IN CHILDREN

- Tachycardia
- Weak, thready, or absent peripheral pulses
- Decreasing consciousness; altered mental status
- Tachypnea/respiratory difficulty
- Central cyanosis and coolness
- Hypotension (late sign)
- Bradycardia (ominous sign)
- No palpable BP (ominous sign)

PEDIATRIC GLASGOW COMA SCALE (PGCS) PARAMETERS

	<2 Years Old	>2 Years Old
Eye opening (E)	(4) Spontaneous (3) To speech (2) To pain (1) None	(4) Spontaneous (3) To speech (2) To pain (1) None
Verbal response (V)	(5) Coos, babbles, appropriate words (4) Irritable, cries but consolable (3) Cries to pain, inconsolable (2) Moans to pain (1) None	(5) Oriented, appropriate words (4) Confused (3) Inappropriate words, persistent cry (2) Incomprehensible sounds (1) None
Motor response (M)	(6) Normal spontaneous movements (5) Withdraws from touch (4) Withdraws from pain (3) Abnormal flexion (decorticate) (2) Abnormal extension (decerebrate) (1) None	(6) Obeys commands (5) Localizes to pain (4) Withdraws from pain (3) Abnormal flexion (decorticate) (2) Abnormal extension (decerebrate) (1) None
Total Pediatric Glasgow Coma Scale Score = 3–15		

Triage

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*) and perform interventions **AS YOU GO**.

DETERMINE TRIAGE CATEGORY AND APPROPRIATE INTERVENTIONS

The assessment findings allow you to determine a triage category, which dictates subsequent actions. Key findings associated with each triage category and general interventions are listed below. Specific actions will vary according to the situation. This information should be kept in a readily accessible location because you will use it frequently for many nursing encounters.

EMERGENT

Findings that suggest a potential threat to life or function require immediate medical attention. These include

- Cardiopulmonary arrest
- Altered mental status
- Anaphylaxis
- Burns, severe/major
- Caustic chemical exposure
- Childbirth, imminent
- Head injury with any history of loss of consciousness
- Pain, severe **or** significant location (e.g., chest)
- Poisoning/drug overdose
- Respiratory distress, severe, **or** respiratory failure
- Shock (hypovolemic, anaphylactic, or cardiogenic)
- Spinal cord injury, suspected
- Status epilepticus **or** first-time seizure
- Suicidal behavior
- Trauma, severe, **or** trauma to limb, distal pulse absent
- Uncontrolled hemorrhage
- Violent/homicidal behavior

INTERVENTIONS

- Control hemorrhage
- Activate EMS
- Support C-ABCDE
- Initiate appropriate interventions as per specific protocol or IHP/ECP
- Directly/continuously observe student
- Contact parent/guardian
- Notify school administrator
- Follow-up

URGENT

*Findings that suggest an acute, severe, but **non-life-threatening** condition require additional medical intervention within 2 hours. These include*

- Burns, minor
- Deformity/suspected closed fracture **without** circulatory compromise
- Fever exceeding 100°F/37.8°C
- GI symptoms, persistent (nausea, vomiting, or diarrhea)
- Lacerations requiring sutures **without** excessive blood loss
- Pain, moderate, following abdominal trauma
- Seizure, atypical, in a student with a history of seizures
- Wheezing

INTERVENTIONS

- Support C-ABCDE as indicated
- Determine need for EMS
- Observe student closely
- Initiate appropriate interventions as per specific protocol or IHP/ECP
- Contact parent/guardian to transport student to medical care or home
- Follow-up

NONURGENT

Findings that suggest a nonacute condition that is not severe, but may require referral for routine medical care. These include

- Essentially well with signs/symptoms (S/S) of mild noncommunicable illness or URI
- Headache **without** fever or other abnormal findings
- Injury, minor (abrasions, ecchymoses, or sprains/strains)
- Pain, mild (e.g., abdominal or menstrual pain, headache, or toothache), **without** fever or other abnormal findings

INTERVENTIONS

- Initiate appropriate interventions or administer medications as per specific protocol or IHP/ECP
- Observe student
- Contact parent/guardian
- Return student to class or send home as indicated
- Follow-up as needed or per policy

Abdominal Pain

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*) and perform interventions AS YOU GO.

KEY ASSESSMENT POINTS FOR ABDOMINAL PAIN

- Focused abdominal examination
 - Time of last bowel movement
 - Urinary symptoms
- Events preceding episode, including trauma
- Menstrual history and possibility of pregnancy
- History/pattern of previous occurrences

DETERMINE TRIAGE CATEGORY AND APPROPRIATE INTERVENTIONS

Determine triage category and activate EMS AS SOON AS the need becomes apparent!

EMERGENT

- Capillary refill time exceeds 2 sec
- Change in mental status or level of consciousness (LOC)
- Decreased or absent bowel sounds
- Abdominal/GU trauma (see *Trauma* protocol)
- Abdominal distention, rigidity, or guarding
- Bluish discoloration of flank or periumbilical area (Grey Turner sign)
- Severe abdominal pain
- Imminent childbirth (see *Obstetric Emergencies* protocol)
- Pregnant with vaginal bleeding

INTERVENTIONS

- Activate EMS
- Support C-ABCDE
- Place student supine
- Give nothing by mouth
- Directly/continuously observe student
- Contact parent/guardian
- Notify school administrator
- Follow-up

URGENT

Stable vital signs with

- Moderate abdominal pain or dysuria
- Nausea/vomiting or significant diarrhea
- Significant pain with fever
- Mucus or frank blood in stool; tarry stools
- Abnormal vaginal bleeding or discharge without pregnancy

INTERVENTIONS

- Determine need for EMS
- Observe student closely
- Give nothing by mouth
- Contact parent/guardian to transport student to medical care or home
- Follow-up

NONURGENT

Stable vital signs with

- Mild or intermittent abdominal pain/cramps
- Onset related to menses

INTERVENTIONS

- If recurrent abdominal pain (RAP) has been diagnosed, allow student to rest in health office
- Observe student
- Contact parent/guardian
- Return student to class or send home as indicated
- Refer to medical care or school support services as indicated for frequent complaints
- Follow-up as needed or per policy

Anaphylaxis/Allergic Reaction

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*) and perform interventions AS YOU GO.

KEY ASSESSMENT POINTS FOR ANAPHYLAXIS

- **Respiratory assessment**
 - Focused physical examination of skin findings
 - History of systemic allergic reaction
 - History of food allergy
 - Events preceding reaction, such as a bite/sting

DETERMINE TRIAGE CATEGORY AND APPROPRIATE INTERVENTIONS

Determine triage category and activate EMS AS SOON AS the need becomes apparent!

EMERGENT

- **S/S of cardiopulmonary compromise** (see *Assessment Tools*)
- Airway compromise
- Change in mental status or LOC
- Cyanosis at mouth and lips
- S/S of severe respiratory distress (wheezing, dyspnea)
- Signs of shock/hypotension
- History of anaphylaxis
- Edema of face, lips, eyes, or tongue
- Generalized hives involving large area
- Diaphoresis
- Complaints of (C/o) tightness in throat or chest
- C/o apprehension and/or weakness

INTERVENTIONS

- Activate EMS
- Support C-ABCDE
- Administer prescribed autoinjectable epinephrine **if available**
- Repeat autoinjectable epinephrine in 10 min if no response
- Initiate CPR if necessary
- For severe respiratory distress, administer prescribed bronchodilator
- **Consult IHP/ECP**
- Directly/continuously observe student
- Contact parent/guardian
- Notify school administrator
- Follow-up

URGENT

- S/S of **mild** systemic reaction; e.g., localized hives, abdominal cramps, nausea, or vomiting
- Edema of extremities
- Persistent coughing
- Tingling, itching of face, ears, or nose
- History of allergy

INTERVENTIONS

- Determine need for EMS
- **Consult IHP/ECP**
- Observe student closely
- Administer prescribed autoinjectable epinephrine **if available** and activate EMS
- Contact parent/guardian to transport student to medical care or home
- Follow-up

NONURGENT

- Local reaction **only**
- Responsive to medications
- Nasal congestion
- Persistent sneezing

INTERVENTIONS

- **Consult IHP/ECP**
- Apply cold pack to site
- Observe student
- Contact parent/guardian
- Return student to class or send home as indicated
- Follow-up as needed or per policy

Asthma Attack (Acute)/Reactive Airway Disease

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*) and perform interventions AS YOU GO.

KEY ASSESSMENT POINTS FOR ACUTE ASTHMA ATTACKS

- Airway examination to rule out (R/O) obstruction due to infection or foreign body aspiration
- Respiratory assessment
- Skin assessment

IMMEDIATE INTERVENTIONS

Even before you determine triage category, perform the following actions as indicated:

- Help student into a position of comfort
- Perform peak flow assessment if possible

Note: Obtain peak expiratory flow reading **before** administering bronchodilator and again 20 min later (or per ECP orders)

- Administer prescribed bronchodilator or other medication as directed

Note: Use spacer or holding chamber with MDI/nebulizer, if available

DETERMINE TRIAGE CATEGORY AND ADDITIONAL INTERVENTIONS

Determine triage category and activate EMS AS SOON AS the need becomes apparent!

EMERGENT

- S/S of severe asthma (see *Assessment Tools*)

INTERVENTIONS

- Support C-ABCDE
- Prepare to ventilate if necessary
- Activate EMS if S/S are not relieved by medication **or** if medication is not available
- Administer high-flow O₂ if available
- Repeat prescribed bronchodilator/ other medications
- Directly/continuously observe student
- **Consult IHP/ECP**
- Contact parent/guardian
- Notify school administrator
- Follow-up

URGENT

- S/S of moderate asthma (see *Assessment Tools*)
- Cannot tolerate normal activity
- No improvement within 15–30 min of bronchodilator administration
- Bronchodilator unavailable

INTERVENTIONS

- Determine need for EMS
- Administer high-flow O₂ if available
- Repeat prescribed bronchodilator/other medications
- **Consult IHP/ECP**
- Directly/continuously observe student
- Contact parent/guardian to transport student to medical care or home
- Follow-up

NONURGENT

- S/S of mild asthma (see *Assessment Tools*)
- Symptoms respond to bronchodilator
- Student is able to maintain normal level of activity

INTERVENTIONS

- Repeat prescribed bronchodilator/other medications
- **Consult IHP/ECP**
- Monitor student
- Contact parent/guardian
- Return student to class or send home as indicated
- Assess need for parent/guardian–student asthma education
- Follow-up as needed or per policy

Bites and Stings

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*) and perform interventions AS YOU GO.

KEY ASSESSMENT POINTS FOR BITES AND STINGS

- Time bite/sting occurred
- Location of bite/sting on body
 - Type of bite/sting
 - Number of bites/stings
 - Intensity of pain
- Previous exposure/allergic/anaphylactic reaction to same type of bite/sting
- Wound characteristics (erythema, edema, ecchymosis, drainage, and size/depth)
- Inspection for foreign body (stinger, tooth, or tick)

DETERMINE TRIAGE CATEGORY AND APPROPRIATE INTERVENTIONS

Determine triage category and activate EMS AS SOON AS the need becomes apparent!

EMERGENT

- S/S of anaphylaxis **or** history of anaphylactic reaction (see *Anaphylaxis* protocol)
- S/S of respiratory distress
- Hypotension
- Cardiac arrest
- Loss of consciousness
- Known exposure to toxin (see *Toxic Exposure* protocol)
- Severe pain

INTERVENTIONS

- Activate EMS
- Support C-ABCDE
- Perform CPR as appropriate
- Administer IM epinephrine as per ECP
- Directly/continuously observe student
- Report animal bites to appropriate local official
- Contact poison control center (PCC) as appropriate (800-222-1222)^a
- Contact parent/guardian
- Notify school administrator
- Follow-up

URGENT

- S/S of mild systemic reaction with wheezing, progressive pain/edema **but** normal vital signs (see *Anaphylaxis* protocol)
- Deep puncture wounds
- Moderate pain
- Lacerations that require sutures (see *Lacerations/Abrasions* protocol)
- Nausea/vomiting
- Human bite with broken skin

INTERVENTIONS

- Determine need for EMS
- Wash lacerations with soap and water; irrigate as indicated
- Observe student closely
- Report animal bites to appropriate local official
- Refer all incidents involving human bites to ED
- Contact PCC as appropriate (800-222-1222)^a
- Contact parent/guardian to transport to medical care or home
- Follow-up

NONURGENT

- Mild localized allergic reaction without systemic/respiratory S/S
- Mild pain
- Mild pruritus
- Stinger/tick present

INTERVENTIONS

Stinger

- Remove stinger by scraping with stiff cardboard/credit card; **do not squeeze**
- Apply cold pack
- Observe student for 20 min before returning to class

Tick

- Grasp tick with fine-point tweezers or gloved fingertips as close to skin as possible
- Pull upward with steady, even pressure
- Wash bite area and hands with soap and water

In All Cases

- Observe student
- Contact parent/guardian
- Contact PCC as appropriate (800-222-1222)^a
- Return student to class or send home as indicated
- Follow-up as needed or per policy

First Aid Don'ts

- **Do not** apply a tourniquet for bites or stings because it can lead to ischemia. Use of tourniquets is limited to uncontrolled hemorrhage.
- **Do not** incise wound or apply suction; these methods are ineffective and potentially dangerous.

^aTo contact the Poison Control Center (800-222-1222): identify yourself as a health care professional and provide your name and phone number; student's name, age, weight, and vital signs; insect or animal involved (if known); time, route, and duration of exposure; abnormal S/S; first aid and immediate interventions rendered.

Refer student for tetanus booster if it has been 5 years or more since the last vaccination. Tetanus booster is recommended every 10 years.

Burns

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*; also see *Burn Assessment* information on next page) and perform interventions AS YOU GO.

KEY ASSESSMENT POINTS FOR BURN INJURIES

- Scene safety (e.g., live electrical wire)
- Burn characteristics (see next page)
- Duration of contact with burn source
- Student's age, weight, and general health status
- Associated injuries
- Pediatric Glasgow Coma Scale (PGCS) score

IMMEDIATE INTERVENTIONS

Even before you determine triage category, perform the following actions as indicated:

- Remove student from burn source (e.g., heat/electricity)
 - Remove jewelry, rings, and constricting clothing (if possible)
 - **Do not remove clothing that has adhered to skin!**
 - Begin irrigation of chemical burns with cool water (clear off any chemical powders/dust before irrigation)
 - Cool thermal burns if less than 20% of total body surface area (% TBSA) is involved
- NOTE:** Protect student from hypothermia; only immerse superficial or partial-thickness burns less than 5% TBSA

DETERMINE TRIAGE CATEGORY AND ADDITIONAL INTERVENTIONS

EMERGENCY

- Apnea or pulseless
- Full-thickness burn (tough, brownish surface)
- Deep partial-thickness burn (charred/white)
- Burns involving face, hands, feet, eyes, ears, or genitalia (see *Eye* or *Ear Emergencies* protocols)
- Electrical burns
- S/S of inhalation injury (singled nasal hair or carbonaceous sputum) or other complicating injuries
- Altered mental status
- Respiratory distress (see *Respiratory Distress* protocol)
- Suspected child maltreatment (see *Child Maltreatment* protocol **after** providing burn care)
- Severe pain

INTERVENTIONS

- Activate EMS
- Support C-ABCDE

Electrical burns

- Safely remove student from burn source
- Initiate CPR as needed/have AED ready
- Inspect for entrance and exit wounds

Chemical burns

- Continue copious irrigation of chemical burns with tepid running water for at least 20 min
- Consider contacting PCC (800-222-1222)
- Send burn agent and SDS/MSDS to ED with student
- **Do not** apply cold packs

Thermal burns

- Cover with dry, sterile dressings or clean sheet

In all cases

- Directly/continuously observe student
- Contact parent/guardian
- Notify school administrator
- Follow-up

URGENT

- Superficial partial-thickness burn without complicating factors
- Moderate pain
- Erythema/edema, wet/oozing blisters
- Too large to cover with adhesive bandage
- Signs of associated infection

INTERVENTIONS

- Determine need for EMS
- Flush copiously with tepid running water
- If unable to immerse, apply clean, wet, cool cloth
- **Do not apply cold packs**
- Do not break blisters
- Bandage loosely
- Observe student closely
- Contact parent/guardian to transport student to medical care or home
- Follow-up

NONURGENT

- Superficial burn (e.g., sunburn)
- Minor erythema
- Local, mild pain
- Student is alert

INTERVENTIONS

- Immerse area in tepid water 2–5 min
- Apply tepid cloths
- Bandage loosely
- Observe student
- Contact parent/guardian
- Return student to class or send home as indicated
- Follow-up as needed or per policy

Burn Assessment

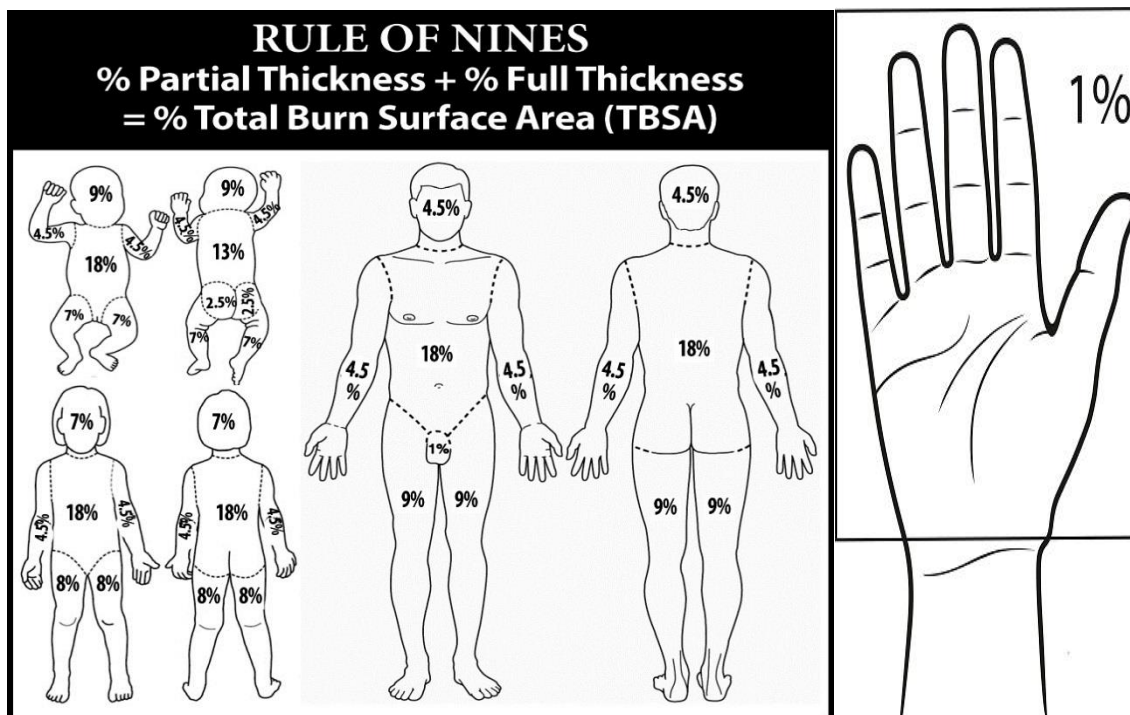
The depth, extent, and location of a burn provide a consistent basis for conveying information about a burn injury to EMS and other health care providers. The following parameters are used to describe depth:

- A **superficial** burn involves only the epidermis. It is characterized by erythema and local pain.
- A **superficial partial-thickness** burn involves both the epidermis and the corium. This type of burn generally produces erythema and blisters.
- A **deep partial-thickness** burn may appear white and dry, with locally reduced sensitivity to touch and pain.
- A **full-thickness** burn has a tough brownish surface and a hard eschar. The area will be locally insensitive to touch or pain. This type of burn will not heal without intervention.

Extent is described as a percentage of the body surface area (% TBSA). A quick way to determine % TBSA for small or irregular burns is to use the student's hand (including the palm and fingers) as a reference; this is approximately equal to 1% of the student's total body surface area. The Figure on the left illustrates % TBSA by anatomical area for an infant, child, and adult; the Figure on the right illustrates the palm-and-hand method of estimating % TBSA based on the child's hand size.

% TBSA by anatomical area
hand calculation^a

Palm-and-



^a Include child's fingers

Chest Pain

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*) and perform interventions **AS YOU GO**.

KEY ASSESSMENT POINTS FOR CHEST PAIN

Consider etiology

- Cardiac
- Trauma
- Respiratory
- Psychosocial stress
- Musculoskeletal

DETERMINE TRIAGE CATEGORY AND APPROPRIATE INTERVENTIONS

Determine triage category and activate EMS **AS SOON AS** the need becomes apparent!

EMERGENT

- Severe chest pain
- Bradycardia/tachycardia
- Cyanosis of lips and nail beds
- Altered mental status
- Palpitations
- Dyspnea
- Peripheral pulses weak/thready/absent
- Diaphoresis; clammy, cool skin
- Restlessness
- Hypotension
- Nausea
- Weakness
- Capillary refill exceeds 2 sec

INTERVENTIONS

- Activate EMS
- Support C-ABCDE
- Have AED readily available
- Maintain position of comfort
- Directly/continuously observe student
- Reassess vital signs every 5 min
- Contact parent/guardian
- Notify school administrator
- Follow-up

URGENT

- Moderate, persistent chest pain
- Anxiety
- Stable vital signs
- No history of
 - Recent chest trauma
 - Recent asthma attack
 - Loss of consciousness

INTERVENTIONS

- Support C-ABCDE
- Determine need for EMS
- Maintain position of comfort
- Observe student closely
- Reassess vital signs
- Contact parent/guardian to transport student to medical care or home
- Follow-up

NONURGENT

- Mild chest pain
- Normal vital signs
- No history of
 - Recent chest trauma
 - Recent asthma attack
 - Loss of consciousness

INTERVENTIONS

- Support C-ABCDE
- Maintain position of comfort
- Monitor closely
- Contact parent/guardian
- Return student to class or send home as indicated
- Follow-up as needed or per policy

Chest Trauma

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*) and perform interventions AS YOU GO.

Provide spinal motion restriction if head/spinal injury is suspected!

KEY ASSESSMENT POINTS FOR CHEST TRAUMA

- Respiratory assessment
- Chest wall inspection for symmetry, wounds, and/or ecchymoses

IMMEDIATE INTERVENTIONS

Even *before* you determine triage category, perform the following actions as indicated:

- If student is apneic, perform rescue breathing using mouth-to-mask
- If student is pulseless, initiate CPR; apply AED
- Apply clean nonporous dressing to open chest wounds (if S/S of tension pneumothorax develop, open the dressing)
- Apply direct pressure for profuse hemorrhage

DETERMINE TRIAGE CATEGORY AND APPROPRIATE INTERVENTIONS

Determine triage category and activate EMS AS SOON AS the need becomes apparent!

<p style="text-align: center;">EMERGENT</p> <ul style="list-style-type: none"> ▪ S/S of respiratory distress ▪ Open chest wound ▪ Crush injury ▪ Uncontrollable hemorrhage ▪ Muffled heart sounds ▪ Paradoxical or asymmetrical chest wall movement ▪ S/S of shock ▪ S/S of tension pneumothorax or cardiac tamponade: <ul style="list-style-type: none"> • Apprehension • Rapid/shallow respiration • Painful respiration • Jugular vein distension • Cyanosis • Muffled heart sounds • Hypotension (late/ominous sign) <p style="text-align: center;">INTERVENTIONS</p> <ul style="list-style-type: none"> ▪ Activate EMS ▪ Support C-ABCDE ▪ Maintain spinal motion restriction ▪ Cover open chest wounds (occlude on three sides only) ▪ Directly/continuously observe student ▪ Contact parent/guardian ▪ Notify school administrator ▪ Follow-up 	<p style="text-align: center;">URGENT</p> <ul style="list-style-type: none"> ▪ Closed chest injury without respiratory distress ▪ S/S of closed rib fracture (shallow/painful but unimpaired respiration) <p style="text-align: center;">INTERVENTIONS</p> <ul style="list-style-type: none"> ▪ Support C-ABCDE ▪ Determine need for EMS ▪ Monitor respiratory/cardiac status ▪ Observe student closely ▪ Contact parent/guardian to transport student to medical care or home ▪ Follow-up 	<p style="text-align: center;">NONURGENT</p> <ul style="list-style-type: none"> ▪ Stable vital signs ▪ Ecchymoses ▪ No S/S of rib fracture <p style="text-align: center;">INTERVENTIONS</p> <ul style="list-style-type: none"> ▪ Apply cold packs as appropriate ▪ Observe student ▪ Contact parent/guardian ▪ Return student to class or send home as indicated ▪ Follow-up as needed or per policy
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NOTE Pneumothorax/cardiac tamponade may develop slowly during a 24–48 hour period following chest trauma; reassessment is crucial. A pneumothorax should be considered emergent; a tension pneumothorax may form if left untreated. Signs/symptoms (S/S) of pneumothorax include tachypnea, tachycardia, unequal chest expansion, and unilateral absent or diminished breath sounds.

Child Maltreatment, Suspected

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*; also see *Indications of Child Maltreatment* protocol on next page) and perform interventions AS YOU GO.

KEY ASSESSMENT POINTS FOR SUSPECTED CHILD MALTREATMENT

- Indications of neglect
- Indications of abuse (see next page)

DETERMINE TRIAGE CATEGORY AND APPROPRIATE INTERVENTIONS

Determine triage category and activate EMS AS SOON AS the need becomes apparent!

EMERGENT

- Multiple new suspicious injuries (see *Trauma* protocol)
- History of chronic life-threatening illness without appropriate medical treatment

INTERVENTIONS

- Activate EMS
- Support C-ABCDE
- Treat injuries
- Provide emotional support
- Directly/continuously observe student
- **Report suspicions to DCFS: 800-25-ABUSE (22873)**
- Notify crisis response team
- Notify school administrator
- **Document all findings**
- Follow-up

URGENT

- New injuries **and** history of suspicious injuries (see *Trauma* protocol)
- Appears inadequately fed, clothed, or sheltered
- Inadequate medical care

INTERVENTIONS

- Treat injuries
- Provide emotional support
- Observe student closely
- **Report suspicions to DCFS: 800-25-ABUSE (22873)**
- Notify crisis response team as appropriate
- **Document all findings**
- Follow-up

NONURGENT

- Student reports abandonment by parent/guardian
- Student reports maltreatment

INTERVENTIONS

- Provide emotional support
- **Report suspicions to DCFS: 800-25-ABUSE (22873)**
- Notify crisis response team as appropriate
- Observe student
- **Document all findings**
- Follow-up as needed or per policy

Indications of Child Maltreatment

NJ REPORTING CHILD ABUSE

1-877-652-2873

INDICATORS OF ABUSE

The following findings should increase your suspicion of child abuse:

- The reported history of injury is inconsistent with the physical examination findings.
- Details of the reported history change from one telling to the next.
- There was a prolonged delay between the time of injury and the time medical assistance was sought.
- The child has a history of repeated trauma.
- The parent/guardian responds to questions inappropriately or does not comply with medical advice.

Suspicious injuries include

- Injuries involving soft tissue of the face, neck, abdomen, or similar areas.
- Injuries involving areas that are normally shielded, including the back and chest.
- Fractures of long bones in children younger than 3 years.
- Old scars or injuries in different stages of healing.
- Injuries with an appearance suggesting deliberate infliction, such as human bite marks, cigarette burns, rope marks, or the imprint of a belt or other object.
- Trauma affecting the genital or perianal area.
- Sharply demarcated burns in unusual areas.
- Scald patterns that appear to involve submersion in hot water, such as burns to the hands, feet, or buttocks.

INDICATORS OF NEGLECT

The following findings should increase your suspicion of child neglect:

- Unsafe conditions are evident in the home environment (e.g., weapons within reach, open windows without screens or window guards, or perilously unsanitary conditions).
- The parent/guardian has not provided for medical treatment, refuses to permit medical treatment, or fails to seek necessary and timely medical care for a child who has an acute or chronic life-threatening illness.
- A child younger than 10 years has been left unattended or unsupervised (although some situations permit a parent/guardian to leave a young child alone without endangerment, you cannot make this determination).
- The child appears to be abandoned.
- The parent/guardian appears to be incapacitated due to intoxication, disabling psychiatric problems, debilitating illness, or similar impairment, and cannot adequately care for the child.
- The child appears to be malnourished (seriously underweight, emaciated, or dehydrated), inadequately clothed, or inadequately sheltered.
- The child is found to be intoxicated or under the influence of an illicit substance.

All instances of suspected child maltreatment must be reported to the DCFS for investigation.

Cold-Related Injuries (Hypothermia/Frostbite)

GENERAL GUIDELINES

- Hypothermia: rewarm slowly
- Frostbite: rewarm quickly
- Do not rub affected area
- Use warm water to rewarm;
never use hot water to rewarm

Educate students regarding susceptibility to hypothermic injury and need for precautions

FROSTBITE CATEGORIES

Frostnip

- Blanched, white skin that is cold to touch

Superficial frostbite

- Firm, waxy skin with softer tissue underneath
- Blisters develop in 24–48 hours

Deep frostbite

- Mottled or gray-blue skin that is firm to touch
- Severity not apparent until frostbitten area is rewarmed
- Sensory: cold; pruritus or paresthesia
- Necrosis develops over time

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*) and perform interventions AS YOU GO.

KEY ASSESSMENT POINTS FOR COLD-RELATED INJURIES

- Skin assessment
- Events preceding episode
- Duration of exposure
- Focused physical examination of extremities

DETERMINE TRIAGE CATEGORY AND APPROPRIATE INTERVENTIONS

Determine triage category and activate EMS AS SOON AS the need becomes apparent!

EMERGENT

- Altered mental status
- Cyanosis
- Slow/shallow respiration
- Weak, thready pulses, no pulses, or bradycardia
- Hypotension
- Extremities edematous and discolored
- No shivering (severe hypothermia)
- Slurred speech
- Abnormally low body temperature
- S/S of deep frostbite

INTERVENTIONS

- Activate EMS
- Remove student's wet clothing
- Keep student warm and completely covered
- Assess vital signs for **1 full minute**
- If pulseless, initiate CPR
- Directly/continuously observe student
- Contact parent/guardian
- Notify school administrator
- Follow-up

URGENT

- Normal LOC or drowsy
- Shivering (mild hypothermia)
- S/S of superficial frostbite or frostnip

INTERVENTIONS

- Remove wet clothing and keep student warm
- Determine need for EMS
- Observe student closely
- If alert, give sips of warm liquid
- Warm area with warm water
- Reinforce need for precautions when exposed to cold
- Contact parent/guardian to transport student to medical care or home
- Follow-up

NONURGENT

- Alert
- Slight shivering
- Exposed skin feels cold
- No signs of frostbite or frostnip

INTERVENTIONS

- Remove wet clothing and replace with dry coverings
- If student is alert, give sips of warm liquid
- Warm cold skin with warm water
- Observe student
- Reinforce need for precautions when exposed to cold
- Contact parent/guardian
- Return student to class or send home as indicated
- Follow-up as needed or per policy

Dental, Oral, and Maxillofacial Emergencies

NOTE

Refer student for tetanus booster if it has been 5 years or more since the last vaccination. Tetanus booster is recommended every 10 years.

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*) and perform interventions **AS YOU GO**.

Provide spinal motion restriction if head/spinal injury is suspected!

KEY ASSESSMENT POINTS FOR DENTAL, ORAL, AND MAXILLOFACIAL EMERGENCIES

- Inspect teeth
- Assess ability to open and close mouth
- Assess facial bones, including mandible

IMMEDIATE INTERVENTIONS

Even *before* you determine triage category, ensure the adequacy of the student's airway.

DETERMINE TRIAGE CATEGORY AND ADDITIONAL INTERVENTIONS

Determine triage category and activate EMS **AS SOON AS** the need becomes apparent!

EMERGENT

- Airway compromise
- Change in mental status or LOC
- Excessive bleeding
- Suspected fracture of mandible or other facial bones (see *Trauma* protocol as indicated)

INTERVENTIONS

- Activate EMS
- Maintain spinal motion restriction
- Support C-ABCDE
- Treat hemorrhage with direct pressure
- Apply cold packs to reduce pain/edema
- For suspected mandible fracture **only**, stabilize jaw by wrapping cravat around the point of the chin and securing it on top of the head; avoiding pressure on the neck
- Directly/continuously observe student
- Contact parent/guardian
- Notify school administrator
- Follow-up

URGENT

- Displacement of multiple teeth
- Avulsion of permanent tooth^a
- Major chip/fracture of permanent tooth
- Broken orthodontic appliance
- Severe toothache

INTERVENTIONS

- If possible, save large tooth chips; cover jagged edge of tooth with gauze
- For wire protruding from appliance, gently attempt to bend away from oral tissue; if unsuccessful, cover end with gauze or dental wax (**do not** remove embedded wire)
- Observe student closely
- Contact parent/guardian to transport student to dental care or home
- Follow-up

NONURGENT

- Caries
- Exfoliation of primary tooth
- Eruption of permanent tooth
- Bleeding gums
- Minor chip/fracture of tooth

INTERVENTIONS

- For minor tooth chip, have student rinse mouth with warm salt water
- Apply cold compress to edematous areas
- Observe student
- Contact parent/guardian
- Return student to class or send home as indicated
- Follow-up as needed or per policy

^aAvulsion of permanent tooth

Note: Replantation is most likely to succeed if attempted within 60 minutes.

- Activate EMS or transport immediately to dentist
- Handle the tooth by the crown, not the root
- If the tooth is dirty, gently rinse in milk or water
- Gently replace tooth in socket (do not use force) **only** if student is alert and able to cooperate; instruct student to keep pressure on tooth by biting gently on clean gauze
- If unable to replace tooth in socket, place the tooth in a protective container filled with pH-balanced solution for transport with student to the ED or dental specialist; if this solution is not available, use cold milk or water

Diabetic Emergencies

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care* and *Assessment Tools*) and perform interventions AS YOU GO.

KEY ASSESSMENT POINTS FOR DIABETIC EMERGENCIES

- Respiratory assessment
 - Skin assessment
- Last insulin dose/type of insulin used and delivery route
- Last meal/carbohydrate intake
- Precipitating factors (exercise, change in eating habits/diet, stress, missed insulin dose, or illness)
- Current blood glucose level

DETERMINE TRIAGE CATEGORY AND APPROPRIATE INTERVENTIONS

Determine triage category and activate EMS AS SOON AS the need becomes apparent!

EMERGENT

Severe hypoglycemia

Glucose less than 70 mg/dL with loss of consciousness or seizures (see *Seizures* protocol)

Severe hyperglycemia/diabetic ketoacidosis (DKA)

Glucose exceeds 180 mg/dL with at least one of the following:

- Moderate to severe dehydration
- Abdominal pain/tenderness
- Kussmaul respiration and/or fruity breath odor
- Tachycardia
- Cool extremities
- Altered mental status (lethargic to comatose)

INTERVENTIONS

- Activate EMS
- Support C-ABCDE
- Directly/continuously observe student
- Place in left lateral recovery position to prevent aspiration
- **Consult IHP/ECP**
 - **Hypoglycemia**
 - Administer 1 mg glucagon IM/SQ if available per ECP (place student in recovery position because glucagon may precipitate vomiting)
 - **Severe hyperglycemia**
 - Administer insulin per ECP
 - **Diabetic ketoacidosis**
 - Prepare for immediate transport
 - Give nothing by mouth
 - **In all cases**
 - Contact parent/guardian
 - Notify school administrator
 - Determine need for diabetes education (parent/guardian, student, and school personnel)
 - Follow-up

URGENT

- S/S of moderate hypoglycemia; glucose less than 70 mg/dL, student awake and responsive
- S/S of moderate hyperglycemia; glucose 120–180 mg/dL; student awake and responsive with mild abdominal pain/tenderness, nausea, headache, tachycardia, and/or fruity breath odor

INTERVENTIONS

- Support C-ABCDE
- Determine need for EMS
- Monitor student closely
- **Consult IHP/ECP**
 - **Hypoglycemia**
 - Give glucose tablets/instant glucose equivalent to 15 grams carbohydrates, or 4 oz regular soda **or** juice (orange/apple), followed by snack/next meal
 - As indicated, give extra snack (e.g., two peanut butter crackers or one-half sandwich and 8 oz milk)
 - **Hyperglycemia**
 - Administer insulin per ECP
 - Increase intake of water
 - Test for ketonuria
 - **In all cases**
 - Contact parent/guardian to transport student to medical care or home
 - Determine need for diabetes education (parent/guardian, student, and school personnel)
 - Follow-up

NONURGENT

- S/S of mild hypoglycemia; glucose 70–80 mg/dL, student awake and alert
- S/S of mild hyperglycemia; glucose 120–180 mg/dL, student awake and alert

INTERVENTIONS

- **Consult IHP/ECP**
 - **Mild hypoglycemia**
 - Give glucose tablets/instant glucose equivalent to 15 grams carbohydrates, **or** 4 oz regular soda or juice (orange/apple), followed by snack/next meal
 - As indicated, give extra snack (e.g., two peanut butter crackers or one-half sandwich and 8 oz milk)
 - Recheck glucose in 15 min; if no improvement, repeat treatment
 - If improvement is noted, return student to class or send home as indicated
 - Instruct student to refrain from tasks requiring intense concentration or exertion for 1 hour
 - **Mild hyperglycemia**
 - Administer insulin per ECP
 - Increase intake of water
 - Return student to class or send home as indicated
 - **In all cases**
 - Contact parent/guardian as needed or per policy
 - Determine need for diabetes education (parent/guardian, student, and school personnel)
 - Follow-up as needed or per policy

Disaster/Emergency Response: Mass-Casualty Incidents

DEFINITION

A mass-casualty incident is a situation in which medical care requirements overwhelm the local emergency response resources

IMMEDIATE ACTIONS

- Assess scene safety
- Activate EMS
- Determine approximate number of casualties
- Activate incident command

DETERMINE TRIAGE CATEGORY AND APPROPRIATE INTERVENTIONS

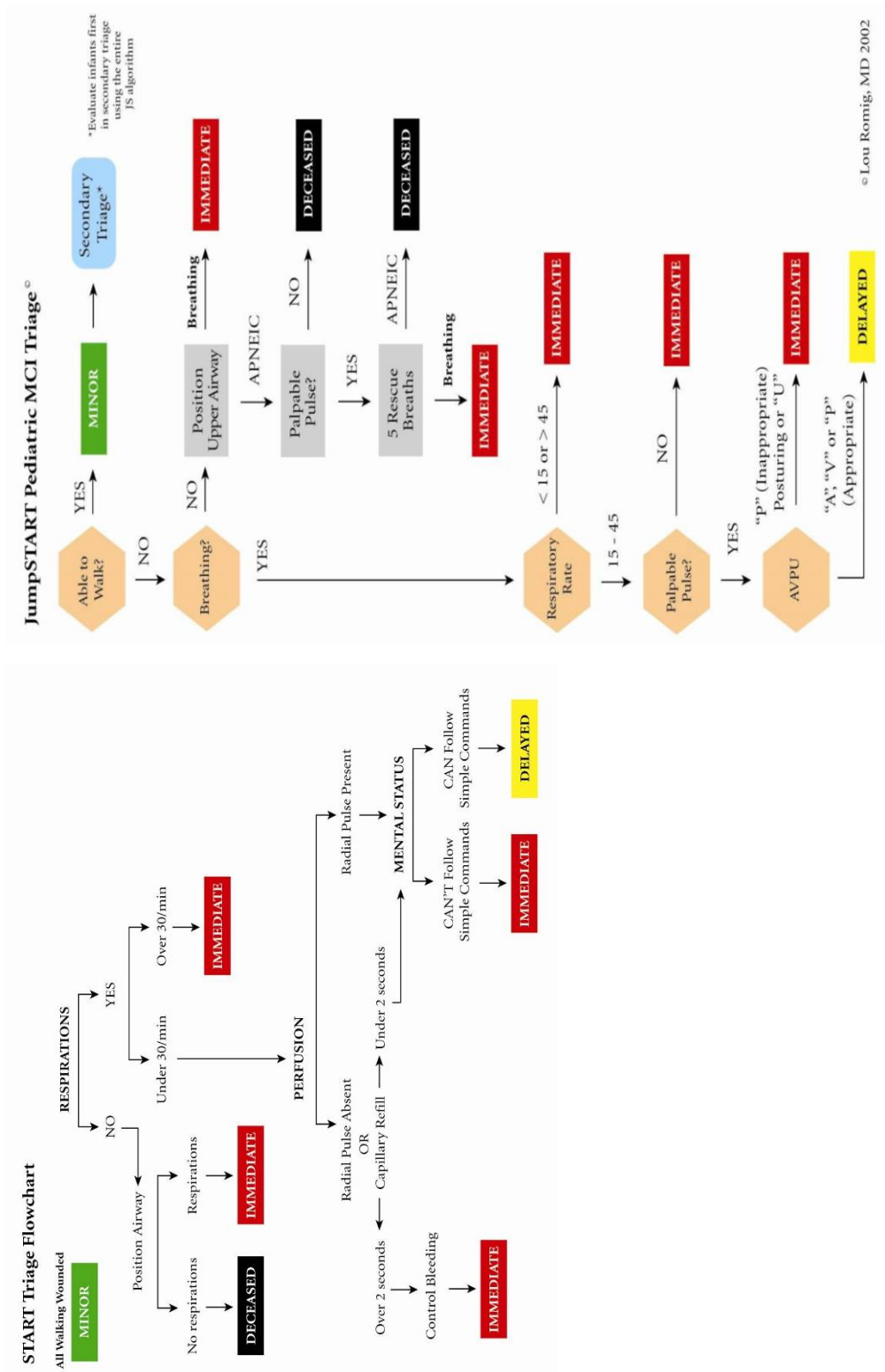
- Perform triage assessment using START/JumpSTART® algorithms for MCI triage (see next page)
- Assign appropriate triage categories
- Dispatch casualties to designated field treatment area

<p>IMMEDIATE</p> <p>Life-threatening</p> <ul style="list-style-type: none"> ▪ Shock ▪ Respiratory distress/failure ▪ Major burns ▪ Fracture of long bone with circulatory compromise <p>INTERVENTIONS</p> <ul style="list-style-type: none"> ▪ Assign team members to multiple casualties ▪ Maintain C-ABCDE ▪ Ensure direct, continuous observation until transfer of care ▪ Notify parent/guardian as specified in emergency response plan ▪ Assist EMS as appropriate ▪ Follow-up 	<p>DELAYED</p> <p>Care required within 1–2 hours</p> <ul style="list-style-type: none"> ▪ Fracture of long bone without circulatory compromise ▪ Laceration without significant blood loss ▪ Head injury without loss of consciousness <p>INTERVENTIONS</p> <ul style="list-style-type: none"> ▪ Maintain C-ABCDE ▪ Initiate appropriate care ▪ Notify parent/guardian as specified in emergency response plan ▪ Assist EMS as appropriate ▪ Provide for counseling ▪ Follow-up 	<p>MINOR</p> <p>Nonacute/minor condition</p> <ul style="list-style-type: none"> ▪ Major abrasions/ecchymoses ▪ Muscle sprains/strains ▪ Emotional distress <p>INTERVENTIONS</p> <ul style="list-style-type: none"> ▪ Initiate appropriate care ▪ Monitor for changes ▪ Notify parent/guardian as specified in emergency response plan ▪ Provide for counseling ▪ Follow-up as needed or per policy 	<p>EXPECTANT/DECEASED</p> <p>Survival unlikely</p> <ul style="list-style-type: none"> ▪ Massive open head trauma ▪ Cardiac arrest <p>INTERVENTIONS</p> <ul style="list-style-type: none"> ▪ Do not render care until adequate resources and personnel permit ▪ Follow-up as needed or per policy
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EMS TRIAGE CATEGORIZATION FOR MASS-CASUALTY INCIDENTS

Category	Condition
Immediate	Potential threat to life or function that requires immediate intervention
Delayed	Acute condition that does not threaten life or limb; requires care within 1–2 hours
Minor	Nonacute or minor condition
Expectant/Deceased	Catastrophic injury or condition such that survival is unlikely (in a disaster situation with mass casualties, limited medical resources do not support the resuscitation and care of these patients)

START/JumpSTART® Algorithms for Mass-Casualty Incident Triage



Drowning/Submersion Injuries

CAUTION

Ensure scene safety! Never attempt a water rescue unless you are trained to do so.

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*) and perform interventions AS YOU GO.

KEY ASSESSMENT POINTS FOR SUBMERSION INJURIES

- Skin assessment
- Duration of exposure
- Inspection for associated injuries

KEY FINDINGS

- Dyspnea, crackles, rhonchi, wheezing, or apnea
- Bradycardia or asystole
- Cyanosis or pallor
- Altered mental status
- Fixed, dilated pupils
- Hypothermia and cool skin

DETERMINE TRIAGE CATEGORY AND APPROPRIATE INTERVENTIONS

The triage category for ALL instances of drowning/submersion is EMERGENT!

INTERVENTIONS

- Activate EMS
- EMS transport to ED for evaluation is REQUIRED in all cases of drowning/submersion!**

If still in water

- Do not remove student without assistance
- Keep student afloat face-up
- Support head and neck in neutral alignment with spine
- Open airway using the jaw-thrust technique and support ventilation
- When adequate assistance is available, place student supine on backboard or other rigid support for removal from water

If out of water

- Support C-ABCDE (use jaw-thrust technique if spinal injury is suspected)
- Assess Pediatric Glasgow Coma Scale score
- Cover student and maintain warmth to prevent hypothermia

In all cases

- Directly/continuously observe student
- Contact parent/guardian
- Notify school administrator
- Follow-up

Ear Emergencies

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*) and perform interventions AS YOU GO.

Provide spinal motion restriction if head/spinal injury is suspected!

KEY ASSESSMENT POINTS FOR EAR EMERGENCIES

- Skin assessment for wounds, blisters, erythema, edema, hematomas, or bleeding
- Focused physical examination (external/otoscopic)
- Hearing evaluation

IMMEDIATE INTERVENTIONS

Even *before* you determine triage category, perform the following actions as indicated:

- Control bleeding
- Apply appropriate dressing

DETERMINE TRIAGE CATEGORY AND ADDITIONAL INTERVENTIONS

Determine triage category and activate EMS AS SOON AS the need becomes apparent!

EMERGENT

- Change in mental status
- Laceration/avulsion/hematoma of external ear with uncontrollable bleeding (see *Head/Spinal Cord* protocol as indicated)
- Burn or direct thermal injury
- Acute hearing loss

INTERVENTIONS

- Activate EMS
- Maintain spinal motion restriction if applicable
- Support C-ABCDE
- Directly/continuously observe student
- Maintain position of comfort
- Keep student calm
- Contact parent/guardian
- Notify school administrator
- Follow-up

URGENT

- Foreign body in ear
- Mild hematoma
- Abrasions/minor lacerations of external ear (see *Lacerations/Abrasions* protocol)

INTERVENTIONS

- Determine need for EMS
- **Foreign body**
 - Do not attempt to remove unless object is visible and can be gripped with forceps or fingers
 - If object is a live insect, instill 1–2 drops of mineral oil
- **In all cases**
 - Closely monitor student
 - Contact parent/guardian to transport student to medical care or home
 - Maintain position of comfort
 - Observe student
 - Follow-up as needed or per policy

NONURGENT

- Mild earache without drainage
- Associated low-grade fever

INTERVENTIONS

- Send student home if pain is persistent **or** accompanied by fever
- Contact parent/guardian
- Return student to class or send home as indicated
- Follow-up as needed or per policy

NOTE

Refer student for tetanus booster if it has been 5 years or more since the last vaccination. Tetanus booster is recommended every 10 years.

There is a high risk for long-term complications with injury to the ear. Always refer the student for evaluation by a Health Care Practitioner.

Eating Disorders

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*) and perform interventions AS YOU GO.

KEY ASSESSMENT POINTS FOR EATING DISORDERS

- History of food intake and level of exercise
- Skin assessment
- Menstrual history
- Mental status examination or other brief psychosocial profile
- Focused physical examination of weight (have student remove shoes/bulky outer wear)

DETERMINE TRIAGE CATEGORY AND APPROPRIATE INTERVENTIONS

Determine triage category and activate EMS AS SOON AS the need becomes apparent!

<p>EMERGENT</p> <ul style="list-style-type: none"> ▪ Cardiac arrest ▪ Seizure activity (see <i>Seizures</i> protocol) ▪ Hypotension ▪ Bradycardia ▪ Lethargy <p>INTERVENTIONS</p> <ul style="list-style-type: none"> ▪ Activate EMS ▪ Support C-ABCDE ▪ Directly/continuously observe student ▪ Contact parent/guardian ▪ Notify school administrator ▪ Follow-up 	<p>URGENT</p> <ul style="list-style-type: none"> ▪ Significant weight loss ▪ Tooth enamel erosion ▪ Weakness ▪ Poor skin turgor <p>INTERVENTIONS</p> <ul style="list-style-type: none"> ▪ Support C-ABCDE ▪ Determine need for EMS ▪ Encourage fluid intake in small quantities ▪ Provide nonthreatening environment ▪ Observe student closely ▪ Discuss the need for medical evaluation and/or counseling with parent/guardian ▪ Contact parent/guardian to transport student to medical care or home ▪ Follow-up 	<p>NONURGENT</p> <ul style="list-style-type: none"> ▪ Normal vital signs ▪ Suspicion or early signs of eating disorder^a <p>INTERVENTIONS</p> <ul style="list-style-type: none"> ▪ Provide nonthreatening environment ▪ Observe student ▪ Discuss health consequences of behavior ▪ Contact parent/guardian ▪ Refer to school counselor ▪ Return student to class or send home as indicated ▪ Follow-up as needed or per policy
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^aEarly signs and psychosocial attributes associated with eating disorders

- High achiever/perfectionist
- Low self-esteem/depression
- History of substance abuse
- Intense fear of weight gain
- Evidence of body dysmorphia
- Rigid self-control
- Reduced food intake, self-induced vomiting, and/or use of laxatives/diuretics/emetics
- Vigorous exercising to achieve weight loss rather than for fitness
- Recent history of weight loss/weight fluctuations
- Preference for oversized clothing
- Amenorrhea
- Hypothermia
- Lanugo (downy hair)
- Weakness
- Poor skin turgor
- Esophagitis or oral lesions
- Dental caries or tooth enamel erosion

Eye Emergencies

SYSTEMATIC ASSESSMENT

**Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*) and perform interventions AS YOU GO.
Provide spinal motion restriction if spinal injury is suspected!**

KEY ASSESSMENT POINTS FOR EYE EMERGENCIES

- Events leading up to injury (e.g., chemical exposure or other burn)
- AS TOLERATED, focused physical examination of the eye/vision for
 - Visible wounds, drainage, or foreign body
 - Extraocular movement
 - PERRL (pupils equal, round, and reactive to light)
 - Visual acuity

IMMEDIATE INTERVENTIONS

For chemical burns involving the eye, IMMEDIATELY activate EMS, then ensure scene safety and begin flushing the eye copiously with saline, eyewash solution, or water.

DETERMINE TRIAGE CATEGORY AND ADDITIONAL INTERVENTIONS

Determine triage category and activate EMS AS SOON AS the need becomes apparent!

EMERGENT

- Change in mental status
- Penetrating injury
- Chemical/thermal burn
- Unequal/irregular pupils
- Blunt injury (see *Head/Spinal Cord* protocol)
- Embedded foreign body
- Hyphema (haze or blood in iris)
- Reduced visual acuity/loss of vision
- Bilateral periorbital ecchymoses (raccoon eyes)

INTERVENTIONS

- Maintain spinal motion restriction as applicable
- Support C-ABCDE
- Activate EMS
- Protect eye from further injury

Chemical burns

- Continue irrigation while awaiting EMS
- Send copy of SDS/MSDS to ED

Penetrating injuries

- Stabilize object with gauze pads
- Tape disposable drinking cup over dressing (do not allow it to contact object)

Thermal burns

- Do not inspect eyes
- Apply loose, moist dressing

Radiation burns

- (From arc welder, sunlight, or sun lamp)
- Cover with eye patch

In all cases

- Directly/continuously observe student
- Contact parent/guardian
- Notify school administrator
- Follow-up

URGENT

- Blunt trauma without vision changes
- S/S extraocular muscle entrapment
- Suspected corneal abrasion
- Laceration of lid
- Blurry/impaired vision
- Diplopia
- Eye pain/guarding
- Sensation of foreign body that persists for more than 1 hour

INTERVENTIONS

- Determine need for EMS
- If no evidence of injury, apply cool compress for 20 min
- Instruct student not to move rapidly, bend over, or cough
- Observe student closely
- Contact parent/guardian to transport student to medical care or home
- Follow-up

NONURGENT

- Superficial foreign body
- Subconjunctival hemorrhage (may result from violent coughing or vomiting)
- Minor periorbital lacerations
- Minor periorbital ecchymoses

INTERVENTIONS

Foreign body

- If foreign body is visible in sac of lower lid, remove with cotton-tipped applicator
- If removal is unsuccessful after two attempts, or if foreign body is located elsewhere, flush eye with saline, eyewash solution, or water

In all cases

- Observe student
- Contact parent/guardian
- Return student to class or send home as indicated
- Follow-up as needed or per policy

Foreign Body Airway Obstruction

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*; also see *AHA Airway Clearing Maneuvers* protocol on next page) and perform interventions AS YOU GO.

KEY ASSESSMENT POINTS FOR FOREIGN BODY AIRWAY OBSTRUCTION

- Evaluation of airway/respiratory status
- Suddenness of onset
- Events leading up to incident (e.g., witnessed ingestion/aspiration of small object, toy, or food)

Note: Fever or S/S of respiratory illness decreases the likelihood of foreign body etiology.

DETERMINE TRIAGE CATEGORY AND APPROPRIATE INTERVENTIONS

Determine triage category and activate EMS AS SOON AS the need becomes apparent!

EMERGENT

Severe airway obstruction

- Choking, silent cough, **or**
- Unable to cough, speak, or make any sound
- Apnea
- Pallor or cyanosis
- Loss of consciousness

INTERVENTIONS

Severe obstruction

Begin AHA airway clearing maneuvers (**see next page for detailed procedure**)

- In infants younger than 1 year, apply five back blows/slaps and five chest thrusts
- In children older than 1 year, perform abdominal thrusts (Heimlich maneuver)
- Continue until either the object is expelled or the infant or child becomes unresponsive
- Begin CPR, checking inside the mouth before each series of rescue breaths to see whether the object **is visible** and can be removed

Note: Do not attempt blind finger sweeps! Foreign body may be pushed further into the airway, exacerbating obstruction

- Activate EMS if efforts are unsuccessful after 1 minute
- Contact parent/guardian
- Notify school administrator
- Follow-up

URGENT

Mild airway obstruction

- History of aspiration
- Fast breathing
- Intermittent wheezing or stridor
- Gagging, choking, or coughing
- Pink skin color
- Mild to moderate dyspnea

INTERVENTIONS

- Encourage forceful cough
- **Do not interfere in any other way**
- Monitor for worsening distress, ineffective cough, inspiratory wheezing, labored breathing, or tachycardia
- If signs of severe obstruction develop, triage as **emergent** and begin AHA airway clearing maneuvers (see next page)
- If student's efforts clear the obstruction, contact parent/guardian to transport student to medical care or home
- Notify school administrator
- Provide psychological support
- Follow-up

NONURGENT

- Witnessed ingestion/aspiration
- Student clears obstruction by coughing
- No S/S of continued obstruction

INTERVENTIONS

- Observe student at frequent intervals throughout day
- Contact parent/guardian
- Provide psychological support
- Return student to class or send home as indicated
- **NOTE:** If student continues to cough the next day, suspect retained bronchial foreign body, bronchitis, or pneumonia
- Follow-up as needed or per policy

American Heart Association (AHA) Airway Clearing Maneuvers

Responsive Infant

- Sit or kneel, and hold the infant prone. Rest your forearm on your thigh and support the infant's head by firmly holding the infant's face and jaw. Place your other hand on the infant's back and support the occiput. The infant should be sandwiched between your forearms with the head lower than the trunk.
- Using the heel of your hand, deliver five forceful back blows/slaps (see Figure at right).
- Turn the infant supine while continuing to support the head and neck. Position the infant on your thigh, and keep the head lower than the trunk.
- Continue to support the occiput with one hand. Place your other hand just below the inframammary fold, as you would to deliver chest compressions. Deliver five quick downward chest thrusts (see Figure at right).
- Continue to alternate back slaps and chest thrusts until either the object is expelled or the infant becomes unresponsive.

Responsive infant



Unresponsive infant



Unresponsive Infant

- Look in the infant's mouth. Attempt to remove the object **if it is visible**.
- Open the airway using a jaw-thrust maneuver. Attempt rescue breaths. If rescue breaths are not effective, reposition the infant's head and try again.
- Begin CPR by compressing the sternum with two fingers just below the inframammary fold.
- Look inside the mouth before each series of rescue breaths and attempt to remove the object **if it is visible**. Repeat these steps up to 1 minute until either the object is dislodged or rescue breathing is successful.
- Activate EMS.
- Return to CPR until efforts are successful or EMS responders take over.

Responsive Child

- Stand or kneel behind the child. Place your arms directly under the child's axillae, and encircle the chest.
- Place the radial side of your fist against the child's abdomen at the midline, slightly above the navel and well below the tip of the xiphoid process.
- Grasp your fist with your other hand. Deliver a series of quick abdominal thrusts directed inward and upward (see Figure at right). Make each thrust separate and distinct. Use sufficient force to dislodge the obstruction, but do not compress the xiphoid process or the lower margins of the rib cage because this could damage internal organs.
- Repeat the series of abdominal thrusts until the object is expelled or the child becomes unresponsive.

Responsive child



Unresponsive Child

- Look in the child's mouth. Attempt to remove the object **if it is visible**.
- Open the airway using a jaw-thrust maneuver. Attempt rescue breaths. If rescue breaths are not effective, reposition the child's head and try again.
- Position yourself kneeling beside the child. Begin CPR
- Look inside the mouth before each series of rescue breaths and attempt to remove the object **if it is visible**. Continue CPR up to 1 minute, until either the object is dislodged or rescue breathing is successful.
- Activate EMS for any unresponsive student.
- Return to CPR until efforts are successful or EMS responders arrive.

Headache

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*) and perform interventions AS YOU GO.

KEY ASSESSMENT POINTS FOR HEADACHES

- Mental status/neurological assessment
- Past health history of headaches or recent head injury
- Events leading up to onset, such as stress, exposure to a known trigger, and/or aura
- Focused physical examination for neck stiffness
- Assessment for visual disturbances (see *Eye Emergencies* protocol)

DETERMINE TRIAGE CATEGORY AND APPROPRIATE INTERVENTIONS

Determine triage category and activate EMS AS SOON AS the need becomes apparent!

EMERGENT

- Change in mental status
- Acute neurological deficit
- Seizure activity (see *Seizures* protocol)
- Severe headache (e.g., c/o “worst headache of my life”)
- Stiff neck with fever
- Recent head injury
- Hypertension

INTERVENTIONS

- Activate EMS
- Support C-ABCDE
- **Consult IHP/ECP**
- Directly/continuously observe student
- Contact parent/guardian
- Notify school administrator
- Follow-up

URGENT

- Moderate headache with vomiting
- History of aura
- Exposure to known trigger
- Blurred vision, dizziness, or photophobia
- No neurological deficit
- History of migraines

INTERVENTIONS

- Determine need for EMS
- Provide rest in quiet, darkened room
- **Consult IHP/ECP**
- Administer medication per IHP/ECP
- Observe student closely
- Contact parent/guardian to transport student to medical care or home
- Follow-up

NONURGENT

- Generalized mild headache
- S/S of upper respiratory infection (URI)
- S/S of sinus infection

INTERVENTIONS

- Allow student to rest
- **Consult IHP/ECP**
- Administer medication per IHP/ECP
- Observe student
- Reassess
- Educate about avoiding triggers
- Contact parent/guardian
- Return student to class or send home as indicated
- Follow-up as needed or per policy

Head/Spinal Cord Trauma

SYSTEMATIC ASSESSMENT

**Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*) and perform interventions AS YOU GO.
Provide spinal motion restriction—DO NOT move student!**

KEY ASSESSMENT POINTS FOR HEAD/SPINAL CORD TRAUMA

- Mental status/neurological assessment
 - Events leading up to injury
 - Mechanism of injury
- Assessment for visual disturbances (see *Eye Emergencies* protocol)

DETERMINE TRIAGE CATEGORY AND APPROPRIATE INTERVENTIONS

Determine triage category and activate EMS AS SOON AS the need becomes apparent!

EMERGENT	URGENT	NONURGENT
<ul style="list-style-type: none"> ▪ Change in mental status (including drowsiness or lethargy) ▪ Abnormal behavior/loss of normal abilities ▪ Seizure activity (see <i>Seizures</i> protocol) ▪ Loss of/decreased movement or sensation in extremities ▪ Blood/cerebrospinal fluid (CSF) discharge from nose/ears ▪ Significant trauma to head/neck or high-risk mechanism of injury ▪ Evidence of depressed skull fracture ▪ Paresthesia 	<ul style="list-style-type: none"> ▪ Brief period of confusion/amnesia ▪ Neck pain ▪ Dizziness ▪ Blurred vision/diplopia ▪ Headache ▪ Nausea/vomiting ▪ Laceration requiring sutures (see <i>Lacerations/Abrasions</i> protocol) 	<ul style="list-style-type: none"> ▪ Alert ▪ Minor abrasions, lacerations, or edema
INTERVENTIONS	INTERVENTIONS	INTERVENTIONS
<ul style="list-style-type: none"> ▪ Activate EMS ▪ Support C-ABCDE and provide spinal motion restriction ▪ Apply direct pressure to bleeding except over depressed skull injury ▪ Keep student warm ▪ Directly/continuously observe student ▪ Contact parent/guardian ▪ Notify school administrator ▪ Follow-up 	<ul style="list-style-type: none"> ▪ Support C-ABCDE ▪ Determine need for EMS ▪ Provide spinal motion restriction ▪ Control bleeding with direct pressure ▪ Apply cold packs to swollen areas ▪ Keep student warm ▪ Observe student closely ▪ Contact parent/guardian to transport student to medical care or home ▪ Follow-up 	<ul style="list-style-type: none"> ▪ Apply cold packs as indicated ▪ Observe student closely ▪ Reassess after 15–30 min ▪ Contact parent/guardian ▪ Return student to class or send home as indicated ▪ Advise parent/guardian, teachers, and coaches of injury and emphasize the need for observation during next 24–48 hours; seek medical care if the student exhibits any of the following: <ul style="list-style-type: none"> • Dizziness • Headache • Nausea • Photophobia • Diplopia • Irritability • Poor concentration • Decline in academic ability • Personality changes ▪ Follow-up as needed or per policy

Heat-Related Injuries

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*) and perform interventions AS YOU GO.

KEY ASSESSMENT POINTS FOR HEAT-RELATED INJURIES

- Skin assessment (e.g., color, temperature, moisture, and other related skin findings)

DETERMINE TRIAGE CATEGORY AND APPROPRIATE INTERVENTIONS

Determine triage category and activate EMS AS SOON AS the need becomes apparent!

EMERGENT

- S/S of heat stroke
 - Hyperthermia (temperature exceeding 104°F/40°C)
 - Confusion/altered mental status
 - Hot/dry/red skin
 - Tachycardia/weak peripheral pulses
 - Syncope
 - Ataxia
- Seizure activity (see *Seizures* protocol)

INTERVENTIONS

Heat stroke is a life-threatening emergency!

- Activate EMS
- Support C-ABCDE
- Immediately remove from heat to a cool environment
- Immediately initiate cooling measures:
 - Loosen clothing
 - Apply cool, wet towels to neck, groin, and axillae
 - Sponge with cool compresses
 - Fan student
- Place in left lateral recovery position in case of vomiting
- Directly/continuously observe student
- Contact parent/guardian
- Notify school administrator
- Follow-up

URGENT

- Oriented
- Mild tachycardia
- S/S of heat exhaustion
 - Cool, moist, and pale skin
 - Dilated pupils
 - Mild to moderate headache
 - Nausea/vomiting
 - Muscle cramps
 - Weakness or dizziness
 - Normothermic to mildly hyperthermic (temperature less than 101°F/38.3°C)
 - Diaphoresis

INTERVENTIONS

- Determine need for EMS
- Observe continuously
- Allow to rest in cool environment
- Loosen clothing
- Apply cool, wet towels
- Fan student
- In the absence of vomiting, encourage fluid replacement with water or a diluted electrolyte-replacement drink as permitted by applicable protocols
- Contact parent/guardian to transport student to medical care or home
- Follow-up

NONURGENT

- Mild cramping of calves, thighs, or shoulders
- Normothermic
- Awake and alert

INTERVENTIONS

- Allow to rest in cool environment
- Loosen clothing
- Observe student
- Encourage fluid replacement with water or a diluted electrolyte-replacement drink as permitted by applicable protocols
- Educate student about maintaining adequate hydration during higher-risk activities
- Contact parent/guardian
- Return student to class or send home as indicated
- Follow-up as needed or per policy

Hemophilia

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*) and perform interventions AS YOU GO.

KEY ASSESSMENT POINTS FOR HEMOPHILIA

- History relating to recent surgery, medical procedures, dental extractions, or injuries
- Focused physical examination for external bleeding, lacerations, ecchymoses, abrasions, and/or hematomas

IMMEDIATE INTERVENTIONS

Even *before* you determine triage category, attempt to control external bleeding by applying firm pressure for 10 min.

DETERMINE TRIAGE CATEGORY AND ADDITIONAL INTERVENTIONS

Determine triage category and activate EMS AS SOON AS the need becomes apparent!

EMERGENT

- S/S of internal bleeding:
 - Headache
 - Dizziness
 - Visual disturbances
 - Neurological deficit
 - Altered mental status/pupillary changes
- Signs of shock
- Profuse, uncontrollable hemorrhage
- Severe abdominal pain

INTERVENTIONS

- Activate EMS
- Support C-ABCDE
- For shock, place in Trendelenburg position
- **Consult IHP/ECP**
- Directly/continuously observe student
- Frequently reassess vital signs and **AVPU**
- Contact parent/guardian
- Notify school administrator
- Follow-up

URGENT

- Acute joint swelling/pain
- Abdominal discomfort, tenderness on palpation, or nausea
- External bleeding that does not diminish with prolonged pressure
- Indications of intramuscular hematoma (most commonly felt in knees, ankles, and elbows): tingling, pain, limited range of motion (ROM), edema, and/or increased warmth/tenderness

INTERVENTIONS

- Support C-ABCDE
- Determine need for EMS
- **Consult IHP/ECP**
- Reassess vital signs
- Apply cold pack to swollen joint
- Observe student closely
- Contact parent/guardian to transport student to medical care or home
- Follow-up

NONURGENT

- Minor lacerations, ecchymoses, or abrasions
- Bleeding responds to pressure

INTERVENTIONS

- Apply firm, direct pressure
- Apply cold pack as indicated
- **Consult IHP/ECP**
- Observe student
- Contact parent/guardian
- Return to class when bleeding stops or send home as indicated
- Educate student, parent/guardian, and school personnel about playground/sport safety
- Follow-up as needed or per policy

Hemorrhage Control

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*; and perform interventions **AS YOU GO**.

Controlling the bleeding is the first priority!

KEY ASSESSMENT POINTS FOR HEMORRHAGE CONTROL

- Scene Safety!
- Activate EMS
- Assess for uncontrolled bleeding
- Control hemorrhage and then assess C-ABCDE

IMMEDIATE INTERVENTIONS

- Elevate limb while applying direct pressure to hemorrhage site with gloved hand or fingers
- Apply a tourniquet when these measures fail

DETERMINE TRIAGE CATEGORY AND APPROPRIATE INTERVENTIONS

Determine triage category and activate EMS AS SOON AS the need becomes apparent!

<p style="text-align: center;">EMERGENT</p> <ul style="list-style-type: none"> ▪ Bleeding requiring a tourniquet such as limb amputations, partial limb amputations, or injuries with arterial bleeding ▪ Acute change from baseline mental status/LOC ▪ Irregular pulse/bradycardia ▪ Hypotension/Hypovolemic Shock <p style="text-align: center;">INTERVENTIONS</p> <ul style="list-style-type: none"> ▪ Apply direct pressure ▪ Apply a tourniquet for bleeding not controlled by direct pressure ▪ Activate EMS ▪ Maintain spinal motion restriction as appropriate ▪ Support C-ABCDE ▪ Keep the student warm ▪ Directly/continuously observe student ▪ Contact parent/guardian ▪ Notify school administrator ▪ Follow-up 	<p style="text-align: center;">URGENT</p> <ul style="list-style-type: none"> ▪ Bleeding from any injury controlled by direct pressure ▪ Large lacerations or avulsions ▪ Tachycardia/bradycardia <p style="text-align: center;">INTERVENTIONS</p> <ul style="list-style-type: none"> ▪ Direct pressure with dressing ▪ Support C-ABCDE as indicated ▪ Keep the student warm ▪ Determine need for EMS ▪ Contact parent/guardian to transport student to medical care or home ▪ Closely observe student ▪ Follow-up 	<p style="text-align: center;">NONURGENT</p> <ul style="list-style-type: none"> ▪ Minor abrasions ▪ Superficial lacerations ▪ No associated injuries <p style="text-align: center;">INTERVENTIONS</p> <ul style="list-style-type: none"> ▪ Perform wound care ▪ Apply dressing ▪ Observe student ▪ Contact parent/guardian ▪ Return student to class or send home as indicated ▪ Follow-up as needed or per policy
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Note: If the incident poses a safety risk (e.g., mass-casualty incident or active shooter), follow lockdown policies or other emergency procedures for any internal or external communication.

Hemorrhage Control, continued

TOURNIQUET APPLICATION

Indications

- Significant hemorrhage in a limb, that cannot be controlled by direct pressure and elevation

Contraindications

- None when used in the mitigation of a life threatening hemorrhage

Equipment needed

- Appropriate PPE
- Approved arterial tourniquet

Procedure (for commercial tourniquet device)

- Follow standard precautions to prevent exposure to body fluids
- Wrap band of tourniquet around the limb, pass the band through the buckle or other fastener device (depending on the model tourniquet) and position tourniquet 2 to 3 inches above the bleeding site. Be sure to apply tourniquet directly to skin.
- Pull the band tightly and fasten it back on itself all the way around the limb. Be sure to obtain good Velcro contact and do not pass band over the rod clips. Note: the band should be tight enough so that the tips of three fingers cannot be passed between band and skin.
- Twist rod until bleeding has stopped.
- Place rod between clips and check bleeding and distal pulse
- If bleeding is still active, consider further tightening of tourniquet or the application of a second tourniquet above the first.
- Secure rod and band with time strap and document the time of application directly on the tourniquet.

Reference

North American Rescue (<https://www.narescue.com/pre-hospital-care-ems-products/massive-hemorrhage/combat-application-tourniquet-c-a-t>)

If a commercial tourniquet is unavailable

- Create a 2–4 inch wide band of soft cloth. A belt, scarf, blood pressure cuff, or triangle bandage may be utilized. Avoid using items that are less than 2 inches wide (such as shoe laces) to prevent further tissue damage. The length required will depend on the size of the student and girth of the extremity.
- Apply the band around the extremity 2 inches above the wound or amputation site, and tie a half knot (a half knot is the same as the first step in tying a shoe lace).
- Place a rigid stick or rod on top of the half knot (to create a windlass), and then use the ends of the band to tie a full knot over the stick. This will tie the band to the stick, holding it in place.
- Rotate/twist the stick until the tourniquet is tight around the limb and/or the bleeding stops.
- Secure the stick in place so that the tourniquet does not unwind.
- You may still have a distal pulse so check for signs of circulation after the tourniquet has been applied. The tourniquet must be tightened enough to stop the bleeding.
- Frequently recheck the wound or stump for signs of bleeding and tighten the tourniquet as needed.
- Document the time of tourniquet application directly on the tourniquet.

Hemorrhage Control, continued



No matter how rapid the arrival of professional emergency responders, bystanders will always be first on the scene. A person who is bleeding can die from blood loss within five minutes, therefore it is important to quickly stop the blood loss.

"Stop the Bleed" is a nationwide campaign to empower individuals to act quickly and save lives.

*Remember to be aware of your surroundings and move yourself and the injured person to safety, if necessary.

Call 911.

Bystanders can take simple steps to keep the injured alive until appropriate medical care is available. Here are three actions that you can take to help save a life:

COMPRESS

Expose to find where the bleeding is coming from and apply **firm, steady, pressure** to the bleeding site with bandages or clothing



* = Wound

TOURNIQUET

If the bleeding doesn't stop, **Place** a tourniquet 2-3 inches closer to the torso from the bleeding. (The tourniquet may be applied & secured over clothing).

Pull the strap through the buckle, **Twist** the rod tightly, **Clip** and secure the rod with the clasp or the Velcro strap.

* One type of tourniquet is depicted.

COMPRESS AGAIN

If the bleeding still doesn't stop, **Place** a second tourniquet closer to the torso from first tourniquet.

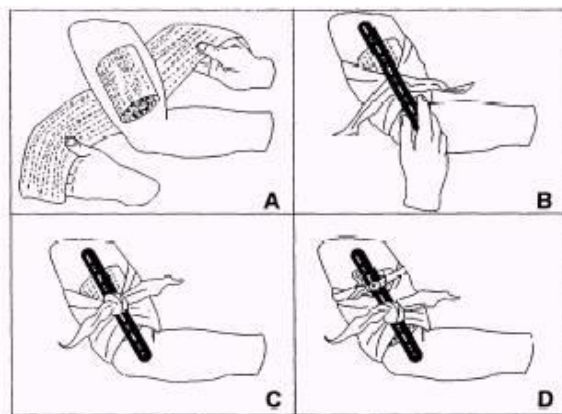
Pull the strap through the buckle, **Twist** the rod tightly, **Clip** and secure the rod with the clasp or the Velcro strap

* One type of tourniquet is depicted.

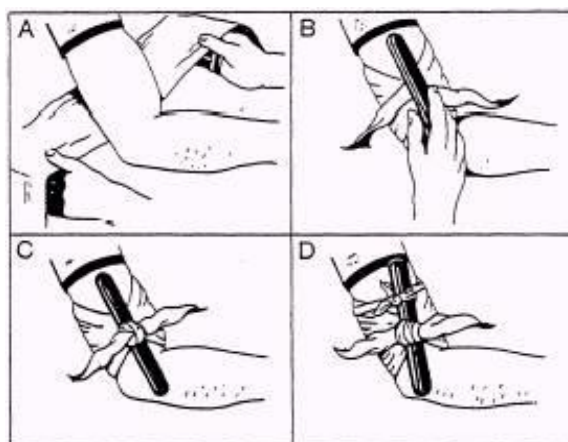


* = Wound

Non-Commercial Tourniquets



DTB1F1306



Source: Integrated Publishing

(<http://www.tpub.com/seabee/6-1.htm>)

Source: U.S. Department of Homeland Security
"Stop the Bleed" campaign
(<https://www.dhs.gov/stopthebleed>)

Increased Intracranial Pressure in a Student with a VP Shunt

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*) and perform interventions AS YOU GO.

KEY ASSESSMENT POINTS FOR STUDENTS WITH VP SHUNTS

- Facial symmetry
 - Gag reflex
 - Pupil size/reactivity
- Extraocular eye movements
- Neurological function
- Pediatric Glasgow Coma Scale (PGCS) score
- Symmetry of function/strength, posture, gait, balance, and spontaneous movement

DETERMINE TRIAGE CATEGORY AND APPROPRIATE INTERVENTIONS

Determine triage category and activate EMS AS SOON AS the need becomes apparent!

EMERGENT

- Change in mental status
- Lethargy
- Acute neurological deficit
- Inability to look up/roll eyes upward
- New onset eye deviation
- Seizure (see *Seizures* protocol)

INTERVENTIONS

- Activate EMS
- Support C-ABCDE
- **Consult IHP/ECP**
- Directly/continuously observe student
- Contact physician for instructions
- Contact parent/guardian
- Notify school administrator
- Follow-up

URGENT

- Early S/S of shunt dysfunction:
 - Headache
 - Irritability
 - Vomiting
 - Decreased appetite
 - Change in personality
 - Loss of existing skills or abilities
 - Swelling/erythema along shunt path
 - Seizures
 - Loss of balance
- S/S of shunt tract infection

INTERVENTIONS

- Support C-ABCDE
- Determine need for EMS
- Place student supine
- Elevate head
- Allow student to rest
- Reduce environmental stimuli
- **Consult IHP/ECP**
- Observe student closely
- Contact parent/guardian to transport student to medical care or home
- Follow-up

NONURGENT

- Mild headache without other S/S of shunt dysfunction
- Normal neurological assessment and PGCS score

INTERVENTIONS

- **Consult IHP/ECP**
- Allow student to rest, and then reassess
- Contact parent/guardian
- Return student to class or send home as indicated
- Reassess every 2 hours if student remains at school
- Follow-up as needed or per policy

Lacerations/Abrasions

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*) and perform interventions AS YOU GO.

KEY ASSESSMENT POINTS FOR LACERATIONS AND ABRASIONS

- Inspection of wound
- Neurovascular assessment distal to injury:
 - 6 Ps mnemonic: Pain, pulselessness, pallor, paresthesia, paralysis, and poikilothermia
 - Capillary refill
 - Edema
 - Skin temperature

DETERMINE TRIAGE CATEGORY AND APPROPRIATE INTERVENTIONS

Determine triage category and activate EMS AS SOON AS the need becomes apparent!

<p style="text-align: center;">EMERGENT</p> <ul style="list-style-type: none"> ▪ Absent distal pulses ▪ Significant blood loss ▪ Crush injury ▪ Amputation (see <i>Trauma</i> protocol) ▪ Penetrating wound ▪ Capillary refill exceeds 2 sec ▪ Altered mental status ▪ S/S of respiratory distress <p style="text-align: center;">INTERVENTIONS</p> <ul style="list-style-type: none"> ▪ Control hemorrhage ▪ Activate EMS ▪ Support C-ABCDE ▪ Elevate/immobilize extremity ▪ Directly/continuously observe student ▪ Contact parent/guardian ▪ Notify school administrator ▪ Follow-up 	<p style="text-align: center;">URGENT</p> <ul style="list-style-type: none"> ▪ Stable vital signs ▪ Pulses are present distal to injury ▪ Significantly contaminated lacerations ▪ Facial lacerations ▪ Puncture wounds of foot ▪ Wounds requiring sutures ▪ Controllable bleeding <p style="text-align: center;">INTERVENTIONS</p> <ul style="list-style-type: none"> ▪ Support C-ABCDE ▪ Determine need for EMS ▪ Control bleeding with direct pressure ▪ Observe student closely ▪ Contact parent/guardian to transport student to medical care or home ▪ Follow-up 	<p style="text-align: center;">NONURGENT</p> <ul style="list-style-type: none"> ▪ Stable vital signs ▪ Superficial abrasion, scrape, or wound ▪ Small splinter or foreign body <p style="text-align: center;">INTERVENTIONS</p> <ul style="list-style-type: none"> ▪ Remove splinter or foreign body ▪ Cleanse wounds using aseptic technique (see below) ▪ Bandage wounds ▪ Observe student ▪ Contact parent/guardian ▪ Return student to class or send home as indicated ▪ Follow-up as needed or per policy
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General wound care/aseptic cleansing

- Clean wounds thoroughly with soap
- Rub abrasions gently with 4x4 gauze to remove debris and crusts
- Rinse copiously with water
- Bandage abrasions loosely using non-adherent gauze to allow air circulation
- Apply butterfly bandage to lacerations after bleeding has been controlled

Due to high risk of infection, all deep puncture wounds of the foot must be referred to a physician.

How to control bleeding

Controlling bleeding is a priority that initially involves direct pressure. Activate EMS for severe injuries that result in hemorrhage.

- Apply dressing and direct manual pressure to any hemorrhage
- Elevate area if possible
- Do not remove dressing; reinforce with additional gauze if needed
- Apply tourniquet or hemostatic dressing for hemorrhage not controlled by the above measures, if available and allowed by policy/protocol (see *Hemorrhage Control* protocol for further information).

Note

Refer student for tetanus booster if it has been 5 years or more since the last vaccination. Tetanus booster is recommended every 10 years.

Musculoskeletal Injuries

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*; also see *Interventions for Musculoskeletal Injuries* protocol on next page) and perform interventions AS YOU GO.

Provide spinal motion restriction if head/spinal injury is suspected!

KEY ASSESSMENT POINTS FOR MUSCULOSKELETAL INJURIES

Focused physical examination of affected area:

- Bilateral symmetry
- Range of motion (ROM)/strength
- Visual inspection for abnormalities

Neurovascular status distal to injury:

- Pain, pulselessness, pallor, paresthesia, paralysis, and poikilothermia (**6 Ps**)
- Edema
- Capillary refill time
- Skin temperature

IMMEDIATE INTERVENTIONS

Even *before* you determine triage category, immobilize and support the affected area proximal and distal to the injury!

DETERMINE TRIAGE CATEGORY AND ADDITIONAL INTERVENTIONS

Determine triage category and activate EMS AS SOON AS the need becomes apparent!

EMERGENT

- Open fracture
- Amputation (see *Trauma and Hemorrhage Control* protocols)
- Degloving injury
- Neurovascular compromise
- Severe edema/deformity at joint or extremity
- Joint deviation
- Suspected femoral fracture

INTERVENTIONS

- Activate EMS
- Support C-ABCDE
- Instruct student to avoid weight-bearing/movement of injured area
- Immobilize and position suspected fractures/dislocations (see next page)
- Reassess neurovascular status distal to injury every 5–10 min
- Directly/continuously observe student
- Contact parent/guardian
- Notify school administrator
- Follow-up

URGENT

- Stable vital signs
- Moderate deformity/discoloration without open wound
- Moderate edema at joint or extremity
- Moderate pain/guarding
- Normal neurovascular findings

INTERVENTIONS

- Support C-ABCDE
- Determine need for EMS
- Immobilize and position suspected fracture/dislocation (see next page)
- Elevate extremity
- Apply cold packs
- Observe student closely
- Reassess neurovascular status distal to injury every 5–10 min
- Contact parent/guardian to transport student to medical care or home
- Follow-up

NONURGENT

- Normal vital signs
- No deformity
- Mild soft tissue edema
- Mild pain/point tenderness
- Able to bear weight
- Normal neurovascular findings

INTERVENTIONS

- Apply cold pack
- Elevate area
- Observe student
- Contact parent/guardian
- Return student to class or send home as indicated
- Follow-up as needed or per policy

Interventions for Musculoskeletal Injuries

MANUAL CERVICAL SPINE MOTION RESTRICTION

- Position student supine
- Place both hands along lateral aspect of student's head
- Position the head so that the neck is in neutral alignment with the spine
- Continue to support the head to maintain neutral cervical alignment



Correct method of simultaneous cervical spine motion restriction during airway opening in a child with multiple injuries.

IMMOBILIZATION/POSITIONING OF FRACTURES AND DISLOCATIONS

Area/Injury	Treatment
Upper extremity	<ul style="list-style-type: none"> ▪ Apply sling/triangular bandage ▪ Swathe if additional immobilization is indicated
Clavicular injury/shoulder dislocation	<ul style="list-style-type: none"> ▪ Apply sling/triangular bandage ▪ Swathe if additional immobilization is indicated
Angulation with unimpaired circulation	<ul style="list-style-type: none"> ▪ Immobilize as presented ▪ Do not move extremity
Angulation with absent distal pulse and/or cyanosis	<ul style="list-style-type: none"> ▪ Return extremity to proper physiological position ▪ Apply gentle traction until pulse is restored ▪ Splint or immobilize injured area and joints proximal and distal to injury ▪ Reassess pulses every 5–10 minutes

SLING-AND-SWATHE IMMOBILIZATION



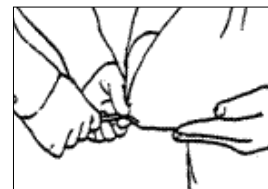
Place the arm across the chest and position as shown. Bring the bandage over the arm and behind the neck.



Adjust the length as necessary and tie the ends. The arm should be well supported and relieve pressure on the shoulder.



Place the knot so that it lies over the shoulder rather than against the cervical spine. Placing a pad under the knot will enhance comfort.



Secure the sling at the elbow with a safety pin or knot to create a pocket in which the elbow rests securely. Reassess neurovascular integrity.



If further immobilization is needed to secure the extremity and a second bandage is available, swathe the arm as permitted by applicable protocols. Lay the second bandage flat, and then fold it several times lengthwise. Use the folded bandage to swathe the injured arm against the chest wall, which immobilizes the injured extremity.

Nose Emergencies

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*) and perform interventions AS YOU GO.

Provide spinal motion restriction if head/spinal injury is suspected!

KEY ASSESSMENT POINTS FOR EMERGENCIES INVOLVING THE NOSE

- Mechanism of injury/events preceding episode
- Airway status
- Physical examination/inspection for abnormalities, bleeding, and drainage

IMMEDIATE INTERVENTIONS

Even before you determine triage category, begin to control bleeding with pressure.

DETERMINE TRIAGE CATEGORY AND ADDITIONAL INTERVENTIONS

Determine triage category and activate EMS AS SOON AS the need becomes apparent!

EMERGENT

- Suspected nasal fracture with potential head/neck injury (see *Head/Spinal Cord* protocol)
- Change in mental status
- Airway compromise
- Cerebrospinal fluid (CSF) drainage

INTERVENTIONS

- Activate EMS
- Maintain spinal motion restriction as applicable
- Support C-ABCDE
- Directly/continuously observe student
- Keep student calm
- Contact parent/guardian
- Notify school administrator
- Follow-up

URGENT

- Suspected nasal fracture, but no possibility of head/neck injury
- Tenderness on palpation
- Epistaxis not controlled after 10 min
- Moderate periorbital edema

INTERVENTIONS

- Determine need for EMS
- **Prolonged epistaxis**
 - Have student blow their nose to remove clots
 - Pinch nostrils closed and apply pressure for 10 min while student leans forward
 - If epistaxis continues, consider activating EMS
- **Suspected nasal fracture**
 - Apply cold packs
 - See *Lacerations/Abrasions* protocol for treatment of associated wounds
- **In all cases**
 - Observe student closely
 - Contact parent/guardian to transport student to medical care or home
 - Follow-up

NONURGENT

- Foreign body
- Controllable epistaxis
- S/S of acute sinusitis:
 - Pain/pressure over sinus areas
 - Throbbing
 - Headache, malaise, fever
 - Mucopurulent secretions
 - Mild periorbital edema

INTERVENTIONS

Epistaxis

- Have student blow their nose to remove clots
- Pinch nostrils closed and apply pressure for 10 min

Foreign body

- Have student blow nose while occluding unobstructed nostril
- Attempt removal **only** if object is visible and can be grasped with forceps or fingers
- During extraction, occlude nostril superior to object so that it cannot be pushed further in
- If object cannot be removed, reclassify as urgent

In all cases

- Observe student
- Contact parent/guardian for referral to primary care physician
- Return student to class or send home as indicated
- Follow-up as needed or per policy

Obstetric Emergencies

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*; also see *Emergency Neonatal Care* protocol on next page) and perform interventions AS YOU GO.

KEY ASSESSMENT POINTS FOR OBSTETRIC EMERGENCIES

- **Obstetric history:**
 - Anticipated due date
 - Recent drug use
 - Possibility of multiple births
- Prenatal care (name/phone number of obstetrician)
 - Delivery hospital
- Color of amniotic fluid (clear, red, green, or yellow-tinged)
- Progression of labor
 - Bloody show/expulsion of mucous plug
 - Timing/strength of contractions
 - Inspection for crowning
 - Reported urge to move bowels

DETERMINE TRIAGE CATEGORY AND APPROPRIATE INTERVENTIONS

Determine triage category and activate EMS AS SOON AS the need becomes apparent!

<p style="text-align: center;">EMERGENT</p> <ul style="list-style-type: none"> ▪ S/S of shock ▪ Seizure activity (see <i>Seizures</i> protocol) ▪ S/S of preeclampsia: <ul style="list-style-type: none"> • BP equals or exceeds 140/90 or • BP elevated by 30 mm Hg (systolic) or 15 mm Hg (diastolic) above known baseline ▪ Crowning ▪ Breech presentation ▪ Prolapsed umbilical cord ▪ Abruptio placentae ▪ Placenta previa/vaginal bleeding ▪ Multigravida ▪ Premature labor ▪ Contractions less than 10 min apart <p style="text-align: center;">INTERVENTIONS</p> <ul style="list-style-type: none"> ▪ Activate EMS ▪ Support C-ABCDE ▪ For signs of shock, if delivery is not imminent, place in left lateral recovery position ▪ If delivery is imminent, prepare for emergency delivery (see next page for emergency neonatal care) ▪ Directly/continuously observe student ▪ Notify school administrator ▪ Follow-up 	<p style="text-align: center;">URGENT</p> <ul style="list-style-type: none"> ▪ Pregnancy-induced hypertension ▪ History of trauma ▪ Active labor, but amniotic sac intact ▪ Contractions more than 10 min apart <p style="text-align: center;">INTERVENTIONS</p> <ul style="list-style-type: none"> ▪ Determine need for EMS ▪ Observe student closely ▪ Contact parent/guardian to transport student for medical care ▪ Monitor closely ▪ Follow-up 	<p style="text-align: center;">NONURGENT</p> <ul style="list-style-type: none"> ▪ Variable contractions ▪ Amniotic sac intact ▪ Vomiting with stable vital signs <p style="text-align: center;">INTERVENTIONS</p> <ul style="list-style-type: none"> ▪ Observe student ▪ Contact parent/guardian to transport student for medical care ▪ Follow-up as needed or per policy
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Emergency Neonatal Care

IMMEDIATE INTERVENTIONS

- Suction the infant's mouth first, then the nose
- Dry the infant with a towel
- If the neonate does not need resuscitation, delay clamping the umbilical cord for 30 seconds
- Wrap the infant in a clean, warmed, dry towel or blanket; cover head
- Stimulate breathing by rubbing infant's back or flicking feet
- Resuscitate if necessary according to current AHA guidelines
- Calculate APGAR score (see below)

NOTE:

Do not interrupt resuscitation procedures to calculate APGAR score!

- Directly/continuously observe student and infant
- Contact significant others per student's request

APGAR SCORING CRITERIA

Unless resuscitation measures are needed, assess the baby's APGAR score 1 minute after birth and again 5 minutes after birth. The following Table summarizes APGAR categories and scoring.

APGAR EVALUATION OF THE NEONATE

	Sign	0	1	2
A	Skin color	Blue	Pink, blue extremities	All pink
P	Heart rate	Absent	<100 bpm	>100 bpm
G	Reflex irritability ^a	No response	Weak cry and grimace	Vigorous cry
A	Muscle tone	Flaccid, limp	Some flexion	Active motion
R	Respiratory effort	Absent	Slow, irregular	Good vigorous cry

^a In response to nasal or oral stimulation; bpm, beats per minute

Respiratory Distress

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*) and perform interventions AS YOU GO.

KEY ASSESSMENT POINTS FOR RESPIRATORY DISTRESS

- Breathing assessment

IMMEDIATE INTERVENTIONS

Even before you determine triage category, perform the following actions as indicated:

- Loosen restrictive clothing ▪ Help student into position of comfort ▪ Maintain airway patency

DETERMINE TRIAGE CATEGORY AND ADDITIONAL INTERVENTIONS

Determine triage category and activate EMS AS SOON AS the need becomes apparent!

EMERGENT

- S/S of severe respiratory distress or failure
- Apnea or dyspnea
- Grunting or drooling
- S/S of impending respiratory failure
 - Cyanosis
 - Tachycardia
 - Shallow respiration
 - Altered mental status/restlessness
 - Hypotension
- S/S of airway obstruction (see *Foreign Body* protocol)
- Severe asthma attack (see *Asthma* protocol)
- S/S of epiglottitis; dysphagia, drooling, high fever, stridor, or tripod positioning

INTERVENTIONS

- Activate EMS
- Support C-ABCDE
- Maintain position of comfort
- Administer high-flow O₂ **as tolerated** if available

Epiglottitis

- **Do not** inspect hypopharynx
- Keep student calm

Respiratory failure

- Assist ventilation via mouth-to-mask
- Anticipate need for CPR

In all cases

- Directly/continuously observe student
- Contact parent/guardian
- Notify school administrator
- Follow-up

URGENT

- S/S of moderate respiratory distress
- Fever, chills
- Persistent or barking cough
- Stridor or wheezing
- Nasal flaring
- Retractions
- Pleural pain
- Mild to moderate asthma (see *Asthma Attack* protocol)

INTERVENTIONS

- Support C-ABCDE
- Determine need for EMS
- Maintain position of comfort
- Observe student closely
- Contact parent/guardian to transport student to medical care or home
- Follow-up

NONURGENT

- Hyperventilation
- S/S of mild upper respiratory infection (URI)
 - Cough
 - Nasal congestion
 - Sore throat
 - Hoarseness
 - Low-grade fever

INTERVENTIONS

For hyperventilation

- Encourage student to relax

In all cases

- Observe student
- Contact parent/guardian
- Return student to class or send home as indicated (send home for fever with temperature exceeding 100°F/37.8°C or per policy)
- Follow-up as needed or per policy

Seizures

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*) and perform interventions AS YOU GO.

- **Provide spinal motion restriction if head/spinal injury is suspected!**
 - Open airway as necessary using the jaw-thrust maneuver.

KEY ASSESSMENT POINTS FOR SEIZURES

- Past health history; particularly note
 - Epilepsy
 - Syncope
 - Diabetes
- Events preceding episode, particularly head injury
- Indicators of drug overdose, meningitis, or hypoglycemia (see *Substance Abuse* and *Diabetic Emergencies* protocols)

IMMEDIATE INTERVENTIONS

During an active seizure, perform the following actions *before* you proceed with triage:

- Do not put anything in student's mouth—do not restrict movement in any way
- Provide privacy
- Protect student from injury

DETERMINE TRIAGE CATEGORY AND ADDITIONAL INTERVENTIONS

Determine triage category and activate EMS AS SOON AS the need becomes apparent!

EMERGENT

- First-time seizure/no known history of seizures
- History of seizures and medication noncompliance with no recent seizures
- Seizure/series of seizures that persist for more than 5 min
- Associated respiratory compromise
- Associated head injury or trauma

INTERVENTIONS

- Activate EMS
- Support C-ABCDE
- **Consult IHP/ECP**
- Directly/continuously observe student
- Provide psychological support
- Document time, characteristics, and duration of seizure
- Contact parent/guardian
- Notify school administrator
- Follow-up

URGENT

- Atypical seizure in student with history of seizures

INTERVENTIONS

- Support C-ABCDE
- Determine need for EMS
- **Consult IHP/ECP**
- Check glucose if possible
- Allow to rest in left lateral recovery position
- Provide psychological support
- Observe student closely
- Document characteristics and duration of seizure
- Contact parent/guardian to transport student to medical care or home
- Follow-up

NONURGENT

- Typical seizure in student with baseline history of frequent seizures

INTERVENTIONS

- **Consult IHP/ECP**
- Check blood glucose if possible
- Allow to rest in left lateral recovery position during postictal phase
- Provide psychological support
- Observe student
- Document characteristics and duration of seizure
- Contact parent/guardian as per policy
- Return student to class or send home as indicated
- For persistent drowsiness, notify parent/guardian to transport student home
- Follow-up as needed or per policy

Sexual Abuse/Assault and Teen Dating Violence

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*) and perform interventions AS YOU GO.

KEY ASSESSMENT POINTS FOR SEXUAL ABUSE OR ASSAULT

- Psychosocial history
- Menstrual status/possibility of pregnancy
- Long-term sexual abuse must be reported to appropriate authorities but may not require EMS transport
- Focused physical examination for acute injuries
- Limit physical contact if assault just occurred to preserve forensic evidence
- Encourage student to bring all clothing worn during the assault to the ED

IMMEDIATE INTERVENTIONS

Even *before* you determine triage category, perform the following actions as indicated:

- Treat any injuries as indicated
- Ask open-ended questions
- Provide a safe, nonthreatening environment
- Support student to seek professional help

Note

Any case of suspected sexual assault requires ED treatment and local law enforcement notification. The student should disclose the full account of the assault *ONLY* to a Sexual Assault Nurse Examiner RN or physician performing the forensic exam.

CALL

NJ ABUSE REPORT HELP LINE

1-877-652-2873

DETERMINE TRIAGE CATEGORY AND ADDITIONAL INTERVENTIONS

Determine triage category and activate EMS AS SOON AS the need becomes apparent! In all cases, report suspicions to DCFS 877-652-2873 and/or local law enforcement.

For students ≥13 years, consent to inform parent must be granted by the student.

EMERGENT	URGENT	NONURGENT
<ul style="list-style-type: none"> ▪ Thoughts of death or suicide ▪ Severe/life-threatening injuries (see <i>Trauma</i> protocol) ▪ Suspected sexual assault 	<ul style="list-style-type: none"> ▪ Ecchymoses/injuries, not life-threatening ▪ Alcohol/drug use ▪ Current, previous, or potential pregnancy 	<ul style="list-style-type: none"> ▪ History of truancy ▪ Sudden change in dress or makeup ▪ Difficulty making decisions ▪ Abrupt changes in mood or personality ▪ Combative, possessive, or jealous behavior ▪ Withdrawal/self-isolation
INTERVENTIONS	INTERVENTIONS	INTERVENTIONS
<ul style="list-style-type: none"> ▪ Activate EMS ▪ Support C-ABCDE ▪ Directly/continuously monitor student ▪ Refer to school counselor as appropriate ▪ Contact parent/guardian as per policy ▪ Preserve evidence and send to ED with student ▪ Notify school administrator ▪ Follow-up 	<ul style="list-style-type: none"> ▪ Support C-ABCDE ▪ Determine need for EMS ▪ Observe student closely ▪ Provide support ▪ Refer to school counselor ▪ Contact parent/guardian to transport student to medical care or home as per policy ▪ Follow-up 	<ul style="list-style-type: none"> ▪ Refer to school counselor ▪ Observe student's behavior with others ▪ Document findings ▪ Provide support ▪ Contact parent/guardian as per policy ▪ Return student to class or send home as indicated ▪ Follow-up as needed or per policy

Sickle Cell Disease

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*) and perform interventions AS YOU GO.

KEY ASSESSMENT POINTS FOR SICKLE CELL DISEASE

- Past health history including recent illness
 - Events leading up to episode, including exposure to temperature extremes
- Focused physical examination/palpation for localized pain, edema, or other abnormalities
- Last food/drink (likelihood of dehydration)

DETERMINE TRIAGE CATEGORY AND APPROPRIATE INTERVENTIONS

Determine triage category and activate EMS AS SOON AS the need becomes apparent!

EMERGENT

- Fever (T exceeds 100°F/37.8°C)
- S/S of infection or sepsis
- Severe, continuous pain in extremities, back, chest, or abdomen
- Seizure activity (see *Seizures* protocol)
- Change in mental status
- Dyspnea
- Chest pain
- Priapism/penile pain
- Severe splenomegaly and S/S of shock
- Pallor or lethargy with other abnormal findings
- S/S of impending respiratory collapse:
 - Cyanosis
 - Tachycardia
 - Shallow respiration
 - Altered mental status/restlessness
 - Hypotension
 - Decreased breath sounds
- Respiratory distress (acute chest syndrome)

INTERVENTIONS

- Activate EMS
- Support C-ABCDE
- **Refer to IHP/ECP**
- **Respiratory distress/shock**
 - Administer high-flow O₂ if available
 - Help to maintain position of comfort (shock position as indicated)
- **In all cases**
 - Directly/continuously observe student
 - Reassess vital signs every 5 min
 - Contact parent/guardian
 - Notify school administrator
 - Follow-up

URGENT

- Fever (T exceeds 100°F/37.8°C)
- Mild to moderate pain
- Severe edema/tenderness of affected areas

INTERVENTIONS

- Support C-ABCDE
- Determine need for EMS
- **Refer to IHP/ECP**
- Provide oral hydration (4–8 oz/hour)
- Allow to rest
- Elevate affected extremity
- Observe student closely
- Contact parent/guardian to transport student to medical care or home
- Educate student about need for good hydration and protection from temperature extremes
- Follow-up

NONURGENT

- Minor localized pain

INTERVENTIONS

- **Refer to IHP/ECP**
- Provide oral hydration (4–8 oz/hour)
- Allow to rest
- Reassess pain
- Contact parent/guardian
- Observe student
- Return student to class or send home as indicated
- Reassess every 2 hours if student remains at school
- Educate student about need for good hydration and protection from temperature extremes
- Follow-up as needed or per policy

Substance Abuse

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*) and perform interventions AS YOU GO.

KEY ASSESSMENT POINTS FOR SUBSTANCE ABUSE

- Respiratory assessment
 - Orientation to person/place/time
 - Ability to recall event/injuries incurred
- Type/amount of substance involved (request medication/drug container if available)
- Time/route of exposure (dermal, ocular, inhalation, or ingestion)
- Underlying health problems (**SAMPLE** history)
- Other students involved

DETERMINE TRIAGE CATEGORY AND APPROPRIATE INTERVENTIONS

Determine triage category and activate EMS AS SOON AS the need becomes apparent!

EMERGENT

- Respiratory/cardiac arrest
- Unconscious/cannot be roused
- Change in mental status
- Labored/shallow breathing
- Hallucinations, violent behavior, or extreme agitation
- S/S of trauma or injury
- Seizure activity (see *Seizures* protocol)

INTERVENTIONS

- Activate EMS
- Support C-ABCDE
- Initiate CPR as appropriate
- Place student in left lateral recovery position
- Directly/continuously observe student
- Monitor airway/respiratory status
- See *Trauma* protocol as appropriate
- Contact the PCC as indicated^a
- Contact parent/guardian
- Notify school administrator
- Initiate counseling/support measures per school policy
- Follow-up

URGENT

- Somnolence, emesis, or unusual behavior
- Unsteady gait
- Memory problems
- Mild agitation/restlessness
- Suspicious odors
- Needle marks/drug residue on skin, nose, or clothes
- Previous loss of consciousness
- Complicating health problems

INTERVENTIONS

- Determine need for EMS
- Observe student continuously
- Give nothing by mouth
- Remain with student
- See *Trauma* protocol as appropriate
- Contact the PCC as indicated^a
- Contact parent/guardian to transport student to medical care or home
- Notify school administrator
- Initiate counseling/support measures per school policy
- Follow-up

NONURGENT

- Coherent and oriented
- Stable vital signs
- No loss of consciousness

INTERVENTIONS

- Support C-ABCDE
- Observe student
- Remain with student
- Contact PCC as indicated^a
- Notify school administrator
- Contact parent/guardian
- Return student to class or send home as indicated
- Initiate counseling/support measures per school policy
- Follow-up as needed or per policy

Note

^aWhen calling the Poison Control Center (800-222-1222), identify yourself as a health care professional and provide the following information: your name and phone number; student's name, age, weight, and vital signs; substance involved (if known); amount, time, route, and duration of exposure; abnormal signs and symptoms (S/S); first aid and immediate interventions rendered.

Suicide Prevention

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*) and perform interventions AS YOU GO.

KEY ASSESSMENT POINTS FOR POTENTIAL SUICIDE

Focused Psychosocial Examination/Risk Factor Assessment

Precipitating events

- Parents recently divorced
 - Multiple life stressors
- Recent breakup with girlfriend or boyfriend
 - Unplanned pregnancy

Preparatory actions

- Acquiring the means
 - Putting affairs in order
 - Suicide talk
- Giving away prized possessions
 - Precautions against discovery

Current Symptoms

- Hopelessness/powerlessness
- Depressed mood
- Suicidal ideation
- Abrupt change in personality

History

- Previous suicide attempts
- Affective disorders or conduct disorder
- Family history of mental illness, suicidal behavior, or affective disorders
- Alcoholism or substance abuse
- Chronic health condition

DETERMINE TRIAGE CATEGORY AND APPROPRIATE INTERVENTIONS

Determine triage category and activate EMS AS SOON AS the need becomes apparent!

EMERGENT

- Thoughts of death
- Suicide plan and preparations
- Suicide attempt
- Previous suicide attempt

INTERVENTIONS

- Activate EMS
- Support C-ABCDE as indicated
- Remove personal effects
- **Do not leave student alone under any circumstances!**
- Listen to student carefully
- Take conversation seriously
- Notify crisis response team
- Contact parent/guardian
- Notify school administrator
- Follow-up

URGENT

- Suicidal ideation
- Depression
- Withdrawal
- Self-blame
- Self-reproach

INTERVENTIONS

- Determine need for EMS
- **Remain with student at all times**
- Listen to student
- Notify crisis response team
- Contact parent/guardian to transport student to medical care or home
- Follow-up

NONURGENT

- Frequent physical complaints
- Sad affect

INTERVENTIONS

- Observe student regularly
- Refer to school counselor
- Notify crisis response team of your concerns and findings
- Contact parent/guardian
- Return student to class or send home as indicated
- Follow-up as needed or per policy

Syncope/Unconsciousness

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*) and perform interventions AS YOU GO.

Provide spinal motion restriction if head/spinal injury is suspected!

KEY ASSESSMENT POINTS FOR SYNCOPE

- Mental status/neurological assessment
 - Psychosocial history
- Past health history/current menstrual status
- Medications taken
- Events leading up to episode, including activities and weather conditions
- Last food/drink taken

DETERMINE TRIAGE CATEGORY AND APPROPRIATE INTERVENTIONS

Determine triage category and activate EMS AS SOON AS the need becomes apparent!

EMERGENT	URGENT	NONURGENT
<ul style="list-style-type: none"> ▪ Acute change from baseline mental status ▪ Irregular pulse ▪ Acute neurological deficit ▪ Head injury/headache with altered mental status or vomiting ▪ Severe headache with altered mental status ▪ Head injury/history of anemia, hemophilia, or other coagulopathy ▪ Associated seizure activity (see <i>Seizures</i> protocol) 	<ul style="list-style-type: none"> ▪ Possible ventriculoperitoneal (VP) shunt dysfunction ▪ S/S of moderate hypoglycemia ▪ Signs of dehydration ▪ Severe headache without altered mental status ▪ Persistent or severe dizziness ▪ Exercise-induced syncope (possible cardiac etiology) ▪ Possible medication reaction without emergent findings ▪ History of substance abuse or eating disorder 	<ul style="list-style-type: none"> ▪ Hyperventilation ▪ Vasovagal reaction to anxiety/pain or other known trigger ▪ Exposure to ambient heat ▪ Evidence of carotid sinus reaction (e.g., subsequent to neck hold by classmate) ▪ No associated injuries
INTERVENTIONS	INTERVENTIONS	INTERVENTIONS
<ul style="list-style-type: none"> ▪ Activate EMS ▪ Provide spinal motion restriction as applicable ▪ Support C-ABCDE ▪ Directly/continuously observe student ▪ Contact parent/guardian ▪ Notify school administrator ▪ Follow-up 	<ul style="list-style-type: none"> ▪ Support C-ABCDE as indicated ▪ Determine need for EMS ▪ Contact parent/guardian to transport student to medical care or home ▪ Closely observe student ▪ Follow-up 	<ul style="list-style-type: none"> ▪ Place student supine ▪ Allow student to wake spontaneously ▪ For hyperventilation, encourage student to relax ▪ Observe student ▪ Contact parent/guardian ▪ Return student to class or send home as indicated ▪ Follow-up as needed or per policy

See the following protocols as appropriate:

- *Diabetic Emergencies*
- *Head/Spinal Cord Trauma*
- *Heat-Related Injuries*
- *Hemophilia*
- *Increased intracranial pressure (ICP) in a Student With a VP Shunt*
- *Seizures*
- *Trauma*

Throat Emergencies

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*) and perform interventions AS YOU GO.

KEY ASSESSMENT POINTS FOR THROAT EMERGENCIES

- Across-the-room assessment (note tripod positioning)
 - Respiratory assessment
- Events preceding illness/suddenness of onset
- Focused physical examination with inspection of pharynx and palpation of lymph nodes

IMMEDIATE INTERVENTIONS

Even before you determine triage category, perform the following actions as indicated:

- Loosen restrictive clothing
- Help student into position of comfort
- Maintain airway patency

DETERMINE TRIAGE CATEGORY AND ADDITIONAL INTERVENTIONS

Determine triage category and activate EMS AS SOON AS the need becomes apparent!

EMERGENT

- Airway compromise
- Change in mental status
- S/S of epiglottitis
 - Sudden onset
 - Stridor, drooling, or dysphagia
 - High fever
- Anaphylactic reaction (see *Anaphylaxis* protocol)
- S/S of retropharyngeal abscess
 - Fever
 - Stiff, painful neck
 - Asymmetrical edema of posterior pharyngeal wall
 - Dyspnea

INTERVENTIONS

- Activate EMS
- Support C-ABCDE
- Keep student calm
- Administer high-flow O₂ **as tolerated** if available

Epiglottitis

- **Do not** inspect hypopharynx
- Maintain position of comfort

In all cases

- Directly/continuously observe student
- Reassess vital signs every 5 min
- Contact parent/guardian
- Notify school administrator
- Follow-up

URGENT

- S/S of peritonsillar abscess
 - Severe pain
 - Fever
 - Muffled voice (e.g., "hot potato voice")

INTERVENTIONS

- Support C-ABCDE
- Determine need for EMS
- Maintain position of comfort
- Contact parent/guardian to transport student to medical care or home
- Observe student closely
- Follow-up

NONURGENT

- Swollen, tender lymph nodes
- S/S of tonsillitis/pharyngitis
 - Tonsillar exudate
 - Erythema
 - Deviation of tonsils toward midline

INTERVENTIONS

- Observe student
- Contact parent/guardian
- Return student to class or send home as indicated (send home for fever exceeding 100°F/37.8°C)
- Follow-up as needed or per policy

Toxic Exposure (Ingestion/Environmental)

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*; also see *Toxidromes* on next page) and perform interventions AS YOU GO.

KEY ASSESSMENT POINTS FOR TOXIC EXPOSURES

- Assess/ensure scene safety (notify school administrator as indicated to activate hazmat protocols)
 - Respiratory assessment
 - Skin assessment
- LOC/neurological assessment, including PERRL
 - Type/amount of substance (get container if available)
 - Time/route of exposure (dermal, ocular, inhalation, or ingestion)
- Location where exposure occurred
- Subsequent S/S; respiratory status, LOC, and emesis
- Ability to recall event, including injuries incurred
- Underlying health problems (**SAMPLE** history)
- Focused physical examination, including injury and/or odors
- Other students involved

DETERMINE TRIAGE CATEGORY AND APPROPRIATE INTERVENTIONS

Determine triage category and activate EMS AS SOON AS the need becomes apparent!

Refer to Toxidromes table (see next page)

EMERGENT

- Respiratory arrest
- Seizures (see *Seizures* protocol)
- Loss of consciousness
- Dyspnea or severe respiratory distress
- Signs of shock/hypotension

INTERVENTIONS

- Activate EMS
- Support C-ABCDE
- Initiate CPR as necessary
- Contact the PCC^a
- Refer for medical care as recommended by the PCC
- Send material safety data sheet/safety data sheet (SDS/MSDS) and substance (if possible) to ED with student
- Contact parent/guardian
- Notify school administrator
- Follow-up

URGENT

- Unusual behavior
- History of emesis
- Minor abnormal findings

INTERVENTIONS

- Determine need for EMS
- Contact the PCC^a
- Refer for medical care as recommended by the PCC
- Consult SDS/MSDS
- Contact parent/guardian to transport student to medical care or home
- Notify school administrator
- Follow-up

NONURGENT

- Asymptomatic
- Stable vital signs

INTERVENTIONS

- Observe student
- Consult SDS/MSDS
- Contact the PCC^a
- Refer for medical care as recommended by the PCC
- Provide supportive care as indicated
- Contact parent/guardian
- Return student to class or send home as indicated
- Notify school administrator
- Follow-up as needed or per policy

NOTE

^aWhen calling the Poison Control Center (800-222-1222), identify yourself as a health care professional and provide the following information: your name and phone number; student's name, age, weight, and vital signs; substance involved (if known); amount, time, route, and duration of exposure; abnormal signs and symptoms (S/S); first aid and immediate interventions rendered.

Toxidromes

If assessment findings suggest a toxic ingestion and you do not know what substance is involved, it may be helpful to look for signs of identifiable toxic syndromes (toxidromes). Toxidromes involve a recognizable group of signs and symptoms that tend to occur consistently with particular toxins. The following Table describes the four major toxidromes and provides mnemonics that can help you remember the associated findings. Examples of substances that can cause each toxidrome are included.

TOXIDROMES

Toxidrome	Clinical Findings	Causative Substances
Opioid	<ul style="list-style-type: none"> Constricted pupils CNS depression Respiratory depression 	<ul style="list-style-type: none"> Heroin Codeine Fentanyl Methadone
Sympathomimetic	<ul style="list-style-type: none"> Hypertension Tachycardia Hyperthermia Diaphoresis Dilated pupils 	<ul style="list-style-type: none"> Epinephrine OTC diet aids containing caffeine Amphetamines Oral decongestants (e.g., pseudoephedrine) Bronchodilators
Anticholinergic <i>Listed phrases may help you recall clinical findings</i>	<ul style="list-style-type: none"> Hyperthermia (<i>hot as a hare</i>) Flushed skin (<i>red as a beet</i>) Hypertension, dry skin (<i>dry as a bone</i>) Delirium (<i>mad as a hatter</i>) Dilated pupils (<i>blind as a bat</i>) Urinary retention (<i>full as a flask</i>) Tachycardia Absent bowel sounds 	<ul style="list-style-type: none"> Antihistamines GI antispasmodics Certain toxic plants (e.g., jimson weed, deadly nightshade, atropine) Tricyclic antidepressants
Cholinergic	<ul style="list-style-type: none"> Diarrrhea Urination Miosis, muscle fasciculations Bradycardia, bronchorrhea Emesis Lacrimation Salivation, sweating Weakness 	<ul style="list-style-type: none"> Organophosphate and carbamate insecticides Physostigmine

CNS, central nervous system; OTC, over-the-counter; GI, gastrointestinal

Trauma

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*; also see *Interventions for Musculoskeletal Trauma* protocol on next page) and perform interventions AS YOU GO. Ensure scene safety before approaching. Provide spinal motion restriction if head/spinal injury is suspected!

DETERMINE TRIAGE CATEGORY AND APPROPRIATE INTERVENTIONS

Determine triage category and activate EMS AS SOON AS the need becomes apparent!

<p style="text-align: center;">EMERGENT</p> <ul style="list-style-type: none"> Profuse hemorrhage Slow or fast RR, other S/S of respiratory distress/failure Capillary refill exceeds 2 seconds, other S/S of shock Currently/previously unconscious Penetrating wound or significant blunt trauma to head, chest, or abdomen Open chest wound Suspected pelvic/femoral fracture Suspected spinal injury with paresthesia Amputation/crush injury S/S of intra-abdominal injury: <ul style="list-style-type: none"> Hematuria Grey Turner sign (bluish discoloration of flank/periumbilical area) Abdominal asymmetry/distention Tenderness/guarding/pain on gentle palpation <p style="text-align: center;">INTERVENTIONS</p> <ul style="list-style-type: none"> Control hemorrhage Activate EMS Support C-ABCDE Maintain spinal motion restriction Place supine or in shock position Keep student warm Give nothing by mouth Stabilize impaled object with dressings—do not remove Splint/elevate suspected fracture Control hemorrhage Directly/continuously observe student Frequently reassess vital signs/AVPU Contact parent/guardian Notify school administrator Follow-up <p style="text-align: center;">Amputation management</p> <ul style="list-style-type: none"> Wrap part in gauze slightly moistened with sterile saline Place in plastic bag, seal securely, and label Place bag on cold packs (not ice) for transport Follow-up 	<p style="text-align: center;">URGENT</p> <ul style="list-style-type: none"> Stable vital signs No loss of consciousness Deformity/suspected closed fracture without neurovascular compromise Controllable bleeding Significant mechanism of injury without other significant abnormalities <p style="text-align: center;">INTERVENTIONS</p> <ul style="list-style-type: none"> Support C-ABCDE Reassess vital signs Determine need for EMS Control bleeding Proceed with detailed physical examination Splint/immobilize suspected fractures, elevate extremity, and apply cold packs <p style="text-align: center;">Blunt abdominal injury</p> <ul style="list-style-type: none"> Observe closely for 15 min for S/S of intra-abdominal injury <ul style="list-style-type: none"> Hematuria Grey Turner sign (bluish discoloration of flank/periumbilical area) Abdominal asymmetry/distention Tenderness/guarding/pain on gentle palpation Reassess in 1 hour or if S/S recur <p style="text-align: center;">In all cases</p> <ul style="list-style-type: none"> Contact parent/guardian to transport student to medical care or home Follow-up 	<p style="text-align: center;">NONURGENT</p> <ul style="list-style-type: none"> Stable vital signs No deformity or suspicion of fracture Minor abrasions or lacerations Mild muscle strain or sprain <p style="text-align: center;">INTERVENTIONS</p> <ul style="list-style-type: none"> Proceed with detailed physical examination Refer to appropriate protocol^a <p style="text-align: center;">Blunt abdominal injury</p> <ul style="list-style-type: none"> Observe closely for 15 min for S/S of intra-abdominal injury <ul style="list-style-type: none"> Hematuria Grey Turner sign (bluish discoloration of flank/periumbilical area) Abdominal asymmetry/distention Tenderness/guarding/pain on gentle palpation Reassess in 1 hour or if S/S recur <p style="text-align: center;">In all cases</p> <ul style="list-style-type: none"> Contact parent/guardian Return student to class or send home as indicated Follow-up as needed or per policy
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^aSee the following protocols as appropriate: ▪ *Abdominal Pain* ▪ *Burns* ▪ *Chest Trauma* ▪ *Head/Spinal Cord Trauma* ▪ *Hemorrhage Control* ▪ *Lacerations/Abrasions* ▪ *Musculoskeletal Injury*

Refer student for tetanus booster if it has been 5 years or more since the last vaccination. Tetanus booster is recommended every 10 years.

Interventions for Musculoskeletal Trauma

MANUAL CERVICAL SPINE MOTION RESTRICTION

- Position student supine
- Place both hands along lateral aspect of student's head
- Position the head so that the neck is in neutral alignment with the spine
- Continue to support the head to maintain neutral cervical alignment



Correct method of simultaneous cervical spine motion restriction during airway opening in a child with multiple injuries.

IMMOBILIZATION/POSITIONING OF FRACTURES AND DISLOCATIONS

Area/Injury	Treatment
Upper extremity	<ul style="list-style-type: none"> ▪ Apply sling/triangular bandage ▪ Swathe if additional immobilization is indicated
Clavicular injury/shoulder dislocation	<ul style="list-style-type: none"> ▪ Apply sling/triangular bandage ▪ Swathe if additional immobilization is indicated
Angulation with unimpaired circulation	<ul style="list-style-type: none"> ▪ Immobilize as presented ▪ Do not move extremity
Angulation with absent distal pulse and/or cyanosis	<ul style="list-style-type: none"> ▪ Activate EMS ▪ Splint or immobilize injured area, including joints that are proximal and distal to the injury ▪ Reassess pulses every 5–10 minutes

SLING-AND-SWATHE IMMOBILIZATION



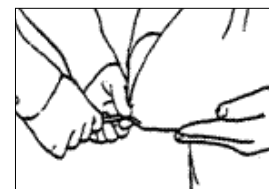
Place the arm across the chest and position as shown. Bring the bandage over the arm and behind the neck.



Adjust the length as necessary and tie the ends. The arm should be well supported and relieve pressure on the shoulder.



Place the knot so that it lies over the shoulder rather than against the cervical spine. Placing a pad under the knot will enhance comfort.



Secure the sling at the elbow with a safety pin or knot to create a pocket in which the elbow rests securely. Reassess neurovascular integrity.



If further immobilization is needed to secure the extremity and a second bandage is available, swathe the arm as permitted by applicable protocols. Lay the second bandage flat, and then fold it several times lengthwise. Use the folded bandage to swathe the injured arm against the chest wall, which immobilizes the injured area.

Violent Behavior

SYSTEMATIC ASSESSMENT

Begin the four components of assessment (see *Systematic Assessment/Immediate Care and Assessment Tools*; also see *Violent Behavior: Safety Tips* protocol on next page) and perform interventions AS YOU GO.

KEY ASSESSMENT POINTS FOR VIOLENT INCIDENTS

- Assess/ensure scene safety before approaching (notify police liaison/security)
- Perform across-the-room assessment followed by mental status examination (below)
- Remember to use communication techniques that are appropriate for the student's developmental level and ability
- **Appearance:** General, grooming, posture
- **Mood:** Cooperative, frightened, irritable
 - **Speech:** Soft/loud, fast, slurred
- **Behavior:** Fidgeting, pacing, eye contact
- **Memory:** Recent memory/immediate recall
 - **Orientation:** Realistically oriented to person/place/time
- **Thought process:** Mental activity, evidence of delusions/hallucinations
- **Thought content:** What the student says, suicidal ideation, hopelessness
- **Insight:** Recognizes responsibilities or blames others for problems
- **Judgment:** Decision-making ability (e.g., superficial or impulsive)
- **Perception:** Awareness of self and thoughts (e.g., guilt or indecisiveness)

DETERMINE TRIAGE CATEGORY AND APPROPRIATE INTERVENTIONS

Determine triage category and activate EMS AS SOON AS the need becomes apparent!

EMERGENT

- Danger to self/others
- Brandishing weapon
- Physical cues indicate escalation
- Drug or alcohol intoxication
- Physical restraint necessary
- History of violence

INTERVENTIONS

- **Initiate lockdown procedures**
- Activate EMS/security
- Never intervene alone
- See next page for safety tips
- Contact parent/guardian
- Notify school administrator
- Monitor behavioral progress
- Follow-up

URGENT

- Moderately agitated but not violent
- Expressing verbal anger without physical aggression

INTERVENTIONS

- Determine need for EMS/security
- Speak in low, measured tones
- Explain that you know something is bothering the student and you will help them control their behavior
- Walk with the student to diffuse agitation
- Repeat/restate what the student says:
 - "You're feeling angry."
 - "I'm concerned for you. I'm going to help you control yourself."
 - "What do you need? What do you need to do?"
 - "When you felt like this before, what helped you?"
- Notify crisis response team
- Contact parent/guardian to transport student to medical care or home
- Monitor behavioral progress
- Follow-up

NONURGENT

- Mildly anxious or frightened
- Previously angry but now calm

INTERVENTIONS

- Take student to a quiet area with backup support available
- Provide reassurance as needed
- Speak in low, measured tones
- Contact parent/guardian
- Allow student to return to class if student is calm, ready, and able to identify ways to deal with feelings; or send home as indicated
- Monitor behavioral progress
- Follow-up as needed or per policy

Violent Behavior: Safety Tips

Emergent situation

- Do not invade student's personal space (stand back at least 5 ft)
- Stand at a 45° angle to student; do not stand directly in front of student
- Maintain an open posture
- Maintain a clear exit route
- Be prepared to move quickly
- Do not make any abrupt moves unless necessary
- Be sure student has no weapons before approaching
- Give student brief, clear, assertive directions before taking any action
- Establish yourself as a concerned professional
- Proceed without hesitation
- Enlist adequate, trained assistance (at least six people, if possible) before attempting physical restraint

Urgent situation

- Speak in low, measured tones
- Explain that you know something is bothering the student and you will help them control their behavior
- Walk with the student to diffuse agitation
- Repeat/restate what the student says:
 - "You're feeling angry."
 - "I'm concerned for you. I'm going to help you control yourself."
 - "What do you need? What do you need to do?"
 - "When you felt like this before, what helped you?"

