

## Assessment and Emergency Care of Shock

### Scene Size-up

Scene Safety	Ensure scene safety and address hazards. Standard precautions should include a minimum of gloves and eye protection. Consider the number of patients, the need for additional help/ALS, and cervical spine stabilization.
Mechanism of Injury (MOI)/ Nature of Illness (NOI)	Determine the MOI/NOI. Observe the scene and look for indicators of the MOI such as falls, motor vehicle crashes, gunshot wounds, or stabbings. Observe the patient for signs of NOI such as urticaria, chest pain, or fever.

### Primary Assessment

Form a General Impression	Determine level of consciousness and find and treat any immediate life threats. Observe overall appearance of patient and body position. Determine priority of care based on the MOI/NOI. If the patient has a poor general impression, call for ALS assistance. A rapid scan will help you identify and manage life threats.
Airway and Breathing	If a cervical spine injury is suspected, open the airway using a modified jaw-thrust and ensure the airway is patent. A patient with an altered level of consciousness may need emergency airway management; consider inserting a properly sized oropharyngeal or nasopharyngeal airway. Assess for gurgling, stridor, or rales. Quickly assess the chest for DCAP-BTLS, accessory muscle use, intercostal and abdominal muscle use, and treat any threats to life. Provide high-flow oxygen at 15 L/min and evaluate the depth and rate of the respiratory cycle, providing ventilatory support as needed.
Circulation	Evaluate distal pulse rate and quality; observe skin color, temperature, and condition; look for life-threatening bleeding and treat accordingly. If distal pulses are not palpable, assess for a central pulse. Place the patient in a supine (Trendelenburg's) or shock position. Prevent heat loss by using blankets. Serious bleeding must be treated at once.
Transport Decision	If the patient has an airway or breathing problem, significant external bleeding, or signs and symptoms of internal bleeding, consider rapid transport. Suspected shock patients or those with a suspicious MOI should go to a trauma center. ALS providers can treat these patients with intravenous fluids to support circulation (shock) problems. If anaphylactic shock is suspected, determine if the patient has a prescribed EpiPen auto-injector before leaving the scene. Do not delay transport to manage non-life-threatening injuries, instead treat en route to the hospital.

**NOTE:** The order of the steps in this section differs depending on whether the patient is conscious or unconscious. The following order is for a conscious patient. For an unconscious patient, perform a primary assessment, perform a rapid full-body scan, obtain vital signs, and if possible, obtain the past medical history from a family member, bystander, or emergency medical identification device.

### History Taking

Investigate Chief Complaint	Investigate the chief complaint. Identify signs and symptoms and pertinent negatives. Be alert for injuries and life threats. Observe for signs and symptoms of shock. Monitor patient for change in mental status. If possible, ask OPQRST and SAMPLE questions.
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## Assessment and Emergency Care of Shock, continued

### Secondary Assessment

#### Physical Examinations

Perform a systematic full-body scan beginning with the head, looking for DCAP-BTLS. Assessment should be rapid if the patient has a poor general impression. Inspect, palpate, and auscultate the chest, focusing on the respiratory effort and adequacy of ventilation. Perform a thorough neurologic examination assessing the pupils, motor response, and sensory response in all extremities. Assess the musculoskeletal system for DCAP-BTLS. Assess the abdomen for signs of internal bleeding. Log roll and inspect the posterior torso for injuries.

#### Vital Signs

Obtain baseline vital signs, monitoring trends. Repeat every 5 to 15 minutes depending on patient impression. Vital signs should include blood pressure, pulse rate and quality, respiration rate and quality, and skin assessment for perfusion. Note patient's level of consciousness. Use pulse oximetry, if available, to assess the patient's perfusion status.

### Reassessment

#### Interventions

Consider cervical spine precautions. Repeat the primary assessment and reassess vital signs and chief complaint. Check interventions and treatment rendered. Airway control using adjuncts may be necessary. Assist breathing as required, administering high-flow oxygen. Control all bleeding and circulation problems. Support the cardiovascular system and treat for shock early. Patients on a backboard should be placed in the Trendelenburg's position by raising the foot end of the backboard 6" to 12". Prevent body heat loss by placing blankets under and over the patient. Splint bone or joint injuries. Do not give the patient anything by mouth. Do not delay transport.

#### Communication and Documentation

Contact medical control with a radio report. Include a thorough description of the MOI/NOI and the position the patient was found in. Include treatments performed and patient response. Follow local protocols. Be sure to document any changes in patient status and the time. Document the reasoning for your treatment and the patient's response.

**NOTE:** Although the steps below are widely accepted, be sure to consult and follow your local protocols.

## Assessment and Emergency Care of Shock, continued

### Shock

#### Treating Cardiogenic Shock

This type of shock is a failure of the pump (heart) and is often the result of a myocardial infarction. Since the heart is no longer an effective pump, fluid backs up in the body and the lungs.

1. Assess ABCs. Patient will often have rales (fluid in the lungs).
2. Patient is often complaining of chest pain.
3. Administer high-flow oxygen via a nonrebreathing mask.
4. Place the patient in a sitting or semi-sitting position to assist breathing.
5. Do not administer nitroglycerin if blood pressure is low; contact medical control.
6. Keep the patient calm, request ALS if available, and transport promptly.
7. Keep alert for the need to assist ventilation, perform cardiopulmonary resuscitation, or defibrillate.

#### Treating Obstructive Shock

This type of shock is usually caused by cardiac tamponade or tension pneumothorax. Patient requires management by ALS providers or more complex management at the hospital.

1. Request ALS.
2. In treating cardiac tamponade, weigh the need for positive-pressure ventilations against the possibility of hypoventilation. In treating tension pneumothorax, high-flow oxygen should be applied early to prevent hypoxia.
3. Prompt transport to the closest emergency department is essential.

#### Treating Septic Shock

A systemic infection causes the blood vessels to become leaky and dilate, causing the container to enlarge. Patient requires complex management in the hospital.

1. Assess and manage life threats to the ABCs.
2. Administer high-flow oxygen.
3. Prevent heat loss.
4. Transport as promptly as possible.

## Assessment and Emergency Care of Shock, continued

### Shock

#### Treating Neurogenic Shock

This type of shock involves an injury to the central nervous system, causing the patient's blood vessels to dilate (container gets bigger). Even though the blood pressure drops, there is no blood loss.

1. Suspect neurogenic shock if the MOI is suspicious.
2. Maintain cervical spine stabilization and airway control with a modified jaw-thrust.
3. Provide oxygen and assist breathing as necessary.
4. Provide spinal immobilization.
5. Elevate the foot end of the backboard slightly to help move blood into the vital organs.
6. Prevent body heat loss.
7. Transport promptly to a trauma center.

#### Treating Anaphylactic Shock

Severe allergic reactions can rapidly progress to anaphylactic shock. The body's response to the allergen causes widespread vasodilation.

1. Request ALS.
2. Be prepared to assist the patient with their prescribed epinephrine auto-injector.
3. Oxygenate and ventilate the patient as necessary.
4. Prompt transport to the closest emergency department is essential.

#### Treating Psychogenic Shock

A sudden reaction of the nervous system causes a temporary vasodilation, resulting in syncope (fainting). It is important to investigate other possible causes of the syncopal episode. Once supine, the patient regains consciousness.

1. Perform a thorough primary assessment to identify any possible life-threatening causes of the syncope.
2. Administer oxygen, elevate the legs, and prevent heat loss.
3. Perform a secondary assessment to identify any injuries that may have occurred when the patient collapsed.
4. Patient should be transported for evaluation.

## Assessment and Emergency Care of Shock, continued

### Shock

#### Treating Hypovolemic Shock

This type of shock is caused by a loss of blood or body fluids. It should be suspected first whenever a patient presents with signs and symptoms of shock. Blood loss may be external or internal secondary to a traumatic injury. Body fluids can be lost due to burns, excessive vomiting, or diarrhea.

1. Management of a patient with hypovolemic shock focuses on preventing further blood or fluid loss.
2. Manage threats to the ABCs.
3. Control external bleeding with direct pressure, pressure dressings, and tourniquets.
4. Internal bleeding is difficult to manage. Splinting injured extremities may slow blood loss.
5. Place the patient on a long backboard. The Trendelenburg's or the shock position may be used to assist with perfusion.
6. High-flow oxygen should be administered to all hypovolemic patients.
7. Prompt transport to a trauma center is required. Do not delay transport.

#### Treating Respiratory Insufficiency

Patients in shock as a result of respiratory insufficiency require immediate airway maintenance and oxygen.

1. Clear obstructions and suction airway as required.
2. Give supplemental oxygen and assist ventilations if necessary.
3. Transport promptly.