

AMERICAN SAFETY & HEALTH INSTITUTE

# *Emergency Medical Response* for Adults in the Workplace™

**STUDENT HANDBOOK**



# EMERGENCY MEDICAL RESPONSE FOR ADULTS IN THE WORKPLACE

AMERICAN SAFETY & HEALTH INSTITUTE

## STUDENT HANDBOOK

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# SECTION 1 | INTRODUCTION

## Emergency Medical Response for Adults in the Workplace

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This program is designed to arm laypersons with the minimum knowledge and skills necessary to provide emergency care for suddenly ill or injured adults during the usually brief interval between the incident and arrival of emergency medical care professionals.

This student handbook serves as a reference guide with a simple design and easy-to-follow skill guides for emergency medical response to ill or injured adults in the workplace. For the purpose of this program, basic first aid is defined as assessments and interventions that can be performed by a bystander (or by the victim) with minimal or no medical equipment. The term basic life support (BLS) means recognition of signs of sudden cardiac arrest (SCA), heart attack, stroke, and foreign-body obstruction (FBAO), cardiopulmonary resuscitation (CPR), and defibrillation with an automated external defibrillator (AED).

Expanded information on bloodborne pathogens and emergency oxygen administration is included to enhance your knowledge and understanding of these two important and related emergency care topics. However, this program is not designed to meet all the required knowledge and training aspects of the OSHA bloodborne pathogen standard and is not intended to imply complete training or certification in the use of emergency oxygen.

This program is intended for individuals who require or desire basic emergency care knowledge and skills with a focus on adults, including emergency response teams in business and industry. American Safety and Health Institute (ASHI) certification may only be issued when an ASHI-authorized Instructor verifies that you have successfully completed and competently performed the required objectives of the program. By itself, this handbook does not constitute complete training.

## Universal First Aid Procedures

### ASSESS



- If it is not safe, or at anytime becomes unsafe, **GET OUT!**
- Observe Universal Precautions. Use Personal Protective Equipment!
- If victim is awake and talking, identify yourself; ask if it is okay to help.
- If victim appears weak, seriously ill or injured or is unresponsive...

### ALERT



**Alert EMS** (Call 9-1-1) or activate your Emergency Action Plan.

### ATTEND



#### A = AIRWAY

Open Airway.

If unresponsive, tilt head – lift chin.

#### B = BREATHING

Check Breathing.

Look, listen and feel for at least 5 seconds, but no more than 10.

**UNRESPONSIVE, not breathing** – Perform CPR.

**UNRESPONSIVE, breathing normally** – Place in recovery position.

If injured, use HAINES position.

#### C = CIRCULATION

- Look for and control severe bleeding with direct pressure.

- Monitor tissue color and temperature.

- Help maintain normal body temperature.

- If it is available and you are properly trained, give emergency oxygen.

#### Provide First Aid Treatment

- **Suspected Spinal Injury** – Place your hands on both sides of victim's head to stabilize it.

- **Suspected Limb Injury** – Place your hands above and below the injury to stabilize it.

- Consider performing physical assessment (SAMPLE/DOTS).

## Universal Basic Life Support Procedures\*

### ASSESS



**Not moving? Unresponsive?**

### ALERT



**Call 9-1-1.** Activate Emergency Action Plan – Get AED and Emergency Oxygen.

### ATTEND



#### A = AIRWAY

Open airway.

**Tilt Head – Lift Chin.**

#### B = BREATHING

Check breathing.

Look, listen and feel for 5, but no more than 10 seconds.

If not breathing, give 2 breaths that make chest visibly rise.

#### C = COMPRESSIONS

**30 compressions, 2 breaths. Repeat.**

Push chest hard and fast (100x per min.) Allow chest to recoil completely. Minimize interruptions.

**ADULT:** Continue 30:2 – attach AED as soon as it arrives.

**CHILD:** Continue 30:2 for 5 cycles, then attach AED.

**INFANT:** Continue 30:2.

#### D = DEFIBRILLATION

Adult/Child over 1 year old  
Expose chest, turn on AED,  
attach.

**Attach AED.**

**FOLLOW VOICE PROMPTS**

#### SHOCK Advised?

Clear. Give 1 Shock.

**Immediately resume CPR.**

Continue 30 compressions 2 breaths x 5 cycles. Check rhythm.

#### NO SHOCK Advised?

**Immediately resume CPR.**

Continue 30 compressions 2 breaths x 5 cycles. Check rhythm.

**CONTINUE UNTIL** 1) person with equal or more training takes over; 2) EMS arrives; 3) victim shows signs of life; 4) you are exhausted; or 5) scene becomes too dangerous to continue.

Procedure adapted from *Circulation* 2005; 112: III-3, IV-21, IV-158 © 2005 International Liaison Committee on Resuscitation, American Heart Association, Inc. and European Resuscitation Council.

# LEGAL ASPECTS OF PROVIDING BASIC EMERGENCY CARE



## Good Samaritan Principle and Laws

This legal principle is based on the Biblical story. It prevents a rescuer who has voluntarily helped a stranger in need from being sued for ‘wrongdoing.’ In most of North America you have no legal obligation to help a person in need. However, since governments want to encourage people to help others, they pass Good Samaritan laws (or apply the principle to common laws). You are generally protected from liability as long as:

- You are reasonably careful;
- You act in “good faith” (not for a reward);
- You do not provide care beyond your skill level.

If you decide to help an ill or injured person, you must not leave them until someone with equal or more emergency training takes over – unless, of course, it becomes dangerous for you to stay.

## Consent

Consent means permission. A responsive adult must agree to receive emergency care. “Expressed Consent” means the victim gives his or her permission to receive care. To get consent, first identify yourself. Then tell the victim your level of training and ask if it’s okay to help. “Implied Consent” means that permission to perform emergency care on an unresponsive victim is assumed. This is based on the idea that a reasonable person would give their permission to receive lifesaving care if they were able.

## Prevention

There is no evidence there has ever been a single successful lawsuit in the United States against a person providing first aid or CPR in good faith. Still, it is necessary to use common sense. Never attempt skills that exceed your training. Don’t move a victim unless their life is in danger. Call for an ambulance immediately, even if you decide not to provide care. Always ask a responsive victim for permission before giving care. Once you have started first aid or CPR, don’t stop until qualified help arrives, you are exhausted, or the scene becomes too dangerous to continue.

## Roles and Responsibilities of the First Aid Provider

### Roles

- Recognize the emergency and decide to help.
- SAFETY FIRST (for yourself, the victim and bystanders).
- If the victim is responsive, get their okay to help.
- Quickly look and care for life-threatening conditions.
- Continue care until someone with equal or more training takes over.
- Cooperate with employer and/or public safety workers (fire, EMS, law enforcement).



*Look for medical identification jewelry and provide care based on findings when possible.*

*Images Courtesy MedicAlert® Foundation*

### Responsibilities

- Maintain composure. Do no further harm.
- Maintain personal health and safety.
- Maintain caring attitude.
- Maintain up-to-date knowledge and skills.
- Without putting yourself in danger, make the victims’ needs your main concern.



# INTRODUCTION TO BLOODBORNE PATHOGENS

Both blood and other potentially infectious materials (OPIM) may contain bloodborne pathogens. Bloodborne pathogens are bacteria and viruses present in the blood and body fluids of an infected person that can cause disease to others.

## Bloodborne pathogens include, but are not limited to:

- Hepatitis B Virus (HBV).
- Hepatitis C Virus (HCV).
- Human Immunodeficiency Virus (HIV).

## OPIM includes:

Human body fluids:

- Seminal (fluid from the male genitals).
- Vaginal (fluid from the female genitals).
- Cerebrospinal (fluid surrounding spinal cord and brain).
- Synovial (fluid that lubricates joint surfaces).
- Pleural (fluid lining the lungs and chest cavity).
- Pericardial (fluid surrounding heart).
- Peritoneal (fluid contained in the abdomen).
- Amniotic (fluid protecting the fetus throughout pregnancy).
- All body fluids in situations where it is difficult or impossible to differentiate between body fluids.

*Note: Feces, nasal secretions, saliva, sputum, sweat, tears, urine, and vomit are not considered potentially infectious for bloodborne pathogens unless they are visibly bloody.<sup>6</sup> Still, you should observe universal precautions around all body fluids to reduce the potential for exposure to other 'microorganisms' that can cause other types of infections.*

## Hepatitis B Virus (HBV)

### Description

HBV is a serious disease caused by a virus that attacks and causes inflammation of the liver. HBV can cause lifelong infection, scarring of the liver, liver cancer, liver failure, and death.

### Incidence

- Number of new infections per year has declined from an average of 260,000 in the 1980s to about 60,000 in 2004.

### Transmission

- Occurs when blood from an infected person enters the body of a person who is not infected.
- HBV is spread through having sex with an infected person without using a condom, by injecting drugs with shared needles, through needlesticks or sharps exposures on the job, or from an infected mother to her baby during birth.
- Persons at risk for HBV infection might also be at risk for infection with hepatitis C virus (HCV) or HIV.

- You cannot get HBV from:
  - Sneezing or coughing.
  - Kissing or hugging.
  - Sharing eating utensils or drinking glasses.
  - Breastfeeding.
  - Food or water.
  - Casual contact (such as an office setting).

### Prevention

- Hepatitis B vaccine is the best protection.
- If you are a designated first aid provider, healthcare or public safety worker, assume that the blood and other body fluids from all patients are potentially infectious.
- Always follow universal precautions and safely handle needles and other sharps.

## Hepatitis B Vaccine

### Description

The HBV vaccine is used to prevent infection by the hepatitis B virus. The vaccine works by causing your body to produce its own protection (antibodies) against the disease. The vaccine is made without any human blood or blood products or any other substances of human origin and cannot give you the hepatitis B virus (HBV) or the human immunodeficiency virus (HIV).

### Effectiveness

- Medical, scientific and public health communities strongly endorse using the hepatitis B vaccine as a safe and effective way to prevent disease and death.

## Requirements for HBV Vaccination

The Bloodborne Pathogens Standard requires that an employer make the hepatitis B vaccination available after an employee has received the bloodborne pathogens training. This must be done within 10 working days of when the employee is assigned to a job with occupational exposure to blood or OPIM. An employee may decline the hepatitis B vaccination but decide to accept it at a later date.

## Hepatitis C Virus (HCV)

### Description

HVC is a serious disease caused by a virus that attacks the liver and causes inflammation. HCV can cause lifelong infection, scarring of the liver, liver cancer, liver failure, and death.

### Transmission

- Occurs when blood from an infected person enters the body of a person who is not infected.
- HCV is spread by injecting drugs with shared needles, through needlesticks or sharps\* exposures on the job, or from an infected mother to her baby during birth.
- HCV can be spread by sex, but this is rare.
- Persons at risk for HCV infection might also be at risk for infection with the hepatitis B virus or HIV.

*\*A sharp is any device having corners, edges, or projections capable of cutting or piercing the skin. This includes syringes with needles, razors, scalpels, and broken glassware contaminated with blood or OPIM. All sharps must be disposed of into an appropriate sharps container.*