

Emergency Oxygen



**Instructor
Guide
Preview**



Emergency Oxygen

Instructor Guide, *Version 7.0*

Purpose of this Guide

This MEDIC First Aid *Emergency Oxygen Version 7.0 Instructor Guide* is solely intended to give information on the presentation and administration of MEDIC First Aid Emergency Oxygen certified training classes. The information in this book is furnished for that purpose and is subject to change without notice.

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Program Standards

Emergency Oxygen

Emergency Oxygen	
Intended Audience	Individuals who desire or are required to be trained in the administration of Emergency Oxygen.
Instructor Requirement	A current and properly authorized MEDIC First Aid Instructor in good standing.
Participant Prerequisites	It is required that a CPR or CPR/first aid training course be completed within the previous 24 months prior to taking the Emergency Oxygen training class.
Required Training Materials	<ul style="list-style-type: none"> ■ MEDIC First Aid Emergency Oxygen Student Pack (one per participant, print or digital) ■ MEDIC First Aid Emergency Oxygen Instructor Guide (one per Instructor, print or digital) ■ MEDIC First Aid Emergency Oxygen presentation media (DVD or Blended)
Course Length	<ul style="list-style-type: none"> ■ Varies by class type (initial, refresher) and method (classroom, blended, challenge) ■ Initial class, about 1½ to 2 hrs ■ Successful completion is based on achievement of the core learning objectives rather than a prescribed instruction time.
Maximum Student-to-Instructor Ratio	12:1 (6:1 recommended)
Certification Requirements	<ul style="list-style-type: none"> ■ Skills Evaluation — Students must perform the following skills competently without assistance. Skill performance can be documented individually on the Class Roster/Student Record or by using Performance Evaluations. <ul style="list-style-type: none"> – Oxygen Delivery for a Breathing Person – Oxygen Delivery for a Nonbreathing Person – Students must demonstrate the use of gloves and a ventilation mask during at least one Small Group Practice. ■ Written Evaluation — Required when specified by organizational, local, or state regulation. It is recommended for designated responders with a duty or employer expectation to respond in an emergency and provide first aid care. Successful completion requires a correct score of 70% or better.
Card Issued	 <p>The image shows a sample certification card for Emergency Oxygen. It features the text 'Certification Card Emergency Oxygen' at the top, a '2010' logo, and a central area with a faint background image of a person receiving first aid. Below this, it states 'has successfully completed the course requirements for the Emergency Oxygen in the Workplace program.' At the bottom right is the 'MEDIC First Aid' logo.</p>
Certification Period	May not exceed 24 months from class completion date. More frequent reinforcement of skills is recommended.

Instructor Information

Emergency Oxygen

Core Learning Objectives

MEDIC First Aid *Emergency Oxygen* is an objectives-driven, skills-based training program. To receive certification, students are required to demonstrate the following knowledge and skill objectives to a currently authorized MEDIC First Aid Instructor.

Knowledge Objectives

Upon completion of this training program, a student will be able to:

1. Explain the importance of emergency oxygen.
2. Identify all the components of an emergency oxygen system and explain their function.
3. Describe safe storage practices.
4. Describe safe handling practices.
5. Explain when and how to check, maintain, and clean an oxygen system.
6. Explain when and how to administer emergency oxygen.
7. Describe how to perform effective rescue breaths using a CPR mask.
8. Describe the steps of a primary assessment for a responsive victim.
9. Describe the steps of a primary assessment for an unresponsive person.
10. Explain how pulse oximetry can be used to help determine the need for and monitor the effectiveness of emergency oxygen.
11. List the situations when a person may benefit from emergency oxygen.
12. Describe how to deliver emergency oxygen to a breathing person.
13. Describe how to deliver emergency oxygen to a nonbreathing person.

Skill Objectives

Upon completion of this training program, a student will be able to:

1. Correctly demonstrate the removal of contaminated gloves.
2. Correctly demonstrate rescue breaths using a CPR mask.
3. Correctly perform a primary assessment for an unresponsive person.
4. Correctly perform a primary assessment for a responsive person.
5. Correctly demonstrate how to assemble an emergency oxygen system.
6. Correctly demonstrate how to turn an emergency oxygen system on and off and determine if oxygen is flowing.
7. Correctly demonstrate how to attach oxygen tubing to a delivery device.
8. Correctly demonstrate how to safely integrate use of emergency oxygen when providing emergency care to a responsive person who is breathing.
9. Correctly demonstrate how to safely integrate use of emergency oxygen when providing emergency care to an unresponsive person who is not breathing (may include integration of CPR and AED skills).

Instructor Information

Emergency Oxygen

Program Overview

The MEDIC First Aid *Emergency Oxygen* training program provides training and skills in the administration of emergency oxygen. The goal of this training is to help students develop the knowledge, skills, and confidence to respond in a medical emergency.

MEDIC First Aid training programs use a proven seeing, hearing, speaking, feeling, and doing approach to make learning easier and more enjoyable. Varied ways of exposing the student to the information helps create better retention. As a result, students develop more confidence in their ability to respond to an actual emergency.

MEDIC First Aid training programs are divided into specific conceptual, skill, or sequence segments. Each segment uses some combination of video, print, demonstration, and practice to present information to a student. Segments build on each other, reinforcing the core skills, and then gradually come together to show how those skills can be integrated into the overall care process.

Two vital components of the instructional system are the program video and the small group practices. The required video uses short, scenario-based video pieces to relay essential cognitive information and to give students real-life demonstrations of skill technique and application.

For hands-on practice, students are arranged in small groups and take turns assuming the roles of first aid provider, person, and coach. This multifaceted approach exposes students to the same information from different perspectives. Overall, the instructional system fosters more self-discovery on the part of the student. Instructors assume more of a facilitator role during class, spending less time talking or lecturing and spending most of the class time creating and maintaining an effective learning environment for students.

Flexibility

The program is intended to be flexible in content. It can be customized to meet the teaching styles of the instructor, the learning needs of the student, and the regulatory needs of an employer.

In the United States, Canada, and most other industrialized countries, workplace safety regulations and occupational licensing requirements may call for specific training content to be covered. Instructors must be familiar with the regulations and licensing requirements of the students they offer training and certification to.

This MEDIC First Aid Emergency Oxygen training program has listed core learning objectives that must be covered in order to issue certification cards. Instructors bear the responsibility of ensuring that each student meets the learning objectives for successful completion.

Initial Training

Students are required to meet the knowledge and skill objectives listed in this program to receive an initial certification card. These core learning objectives represent the minimum content a student needs to understand in order to manage a medical emergency. In addition to this core content, the MEDIC First Aid Emergency Oxygen program materials include supplemental and optional content. Instructors determine the depth to which the core content is covered and which supplemental or optional content to cover in a training class.

Flexibility is desirable; individual students may request specific content, and employers may require specific content to be covered. Occupational regulatory or licensing agencies may also require additional content, hours of instruction, or other practices.

Instructor Information

Emergency Oxygen

Program Segments and Practices

The following table provides an overview of the primary topics and student activities/practices found within the Medic First Aid Emergency Oxygen training program. Required activities, segments, and practices are in bold.

Segments	Demonstration and Practice
Introduction	
Introduction to the Course	None
Delivery Systems	
Emergency Oxygen Delivery Systems	Demonstration: Instructor demonstration of emergency oxygen delivery system components that student will use in class.
Pulse Oximetry	Demonstration: Instructor demonstration of pulse oximetry equipment (<i>Optional</i>). Small Group Practice: Using Pulse Oximetry Equipment (<i>Optional</i>)
Oxygen Delivery	
Breathing Person	Demonstration: Instructor demonstration of Oxygen Delivery for Breathing Person Small Group Practice: Oxygen Delivery for a Breathing Person
Nonbreathing Person	Demonstration: Instructor demonstration of Oxygen Delivery for Nonbreathing Person Small Group Practice: Oxygen Delivery for a Nonbreathing Person
Other Considerations	
After-use Considerations	Demonstration: Instructor demonstration of After-use Considerations Small Group Practice: Oxygen Equipment Disassembly and Reassembly (<i>Optional</i>)
Safety Precautions	
Wrap Up	
	Written Exam (<i>Optional</i>)

Instructor Information

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Recommended Time to Complete

There are many factors affecting classroom time, including the varying nature of learning, the number of students, the amount and quality of previous training, the amount of equipment available, and the experience level of the Instructor. Because of these factors, a time range is recommended instead of a fixed number of hours.

- Emergency Oxygen — 1.5–2 hours

Allow for additional time when adding optional training components such as Optional Topics/Skills, Talk-through Scenarios, or Performance Evaluations.

Skills Practice

Students taking a MEDIC First Aid Emergency Oxygen training class must get enough hands-on skill practice to be able to demonstrate competent performance in the skill objectives. Competent performance is required to receive a certification card. An adequate portion of class time should be dedicated to developing competent skills. Small Group Practices are located throughout the MEDIC First Aid Emergency Oxygen training program for this purpose. Instructors can extend or include additional practice sessions as needed or desired.

Conducting Small Group Practices

MEDIC First Aid training programs utilize a proven seeing, hearing, speaking, feeling, and doing approach to skills practice. To maximize student participation and the retention of skills, always consider the following when conducting Small Group Practices:

- Small Group Practices are student exercises designed to help students learn a particular skill or emergency sequence. These hands-on practice sessions are essential to each student's understanding and retention of the material in the program.
- Students are arranged in pairs or small groups depending on the skill or sequence being practiced. Instructors are encouraged to create as small a group as possible.
- During the practice session, students will rotate through the roles of coach, provider, and ill or injured person.
- Students will play the role of the ill or injured person unless a manikin is required due to the physical nature of the skills.
- Coaches are responsible for helping the provider remember and perform the skills indicated. Coaches will refer to the corresponding Student Guide page during the practice. Only coaches will use this page. Others in the groups will observe the performance.

- Based on the Student Guide, the coach will provide corrective feedback on the provider's performance.
- Instructors will roam through groups looking for inadequate performance. Positive coaching and gentle correction can be used to improve skills.
- It is important for Instructors to refrain from overcontrolling the instructional process. This will maximize the use of student self-discovery to increase understanding and retention.

Integration

The MEDIC First Aid Emergency Oxygen training program may be integrated with other MEDIC First Aid programs where necessary or desired. Other programs that can be integrated include the MEDIC First Aid *BasicPlus* and *CarePlus* programs.

Renewal

Students returning before the end of their certification period can renew their certification in a training class using Talk-through Scenarios that focus on achieving the listed core skills objectives through scenario-based skills practice and evaluation. As the training progresses, instructors need to constantly evaluate the level of cognitive understanding within the group being trained and review core knowledge objectives as needed.

Renewal training is typically shorter than initial training. However, the amount of reduced time is dependent on the level to which the group still understands the cognitive information within the program. Frequent refreshers during the certification period can help improve this.

Renewal training can also be accomplished by repeating an initial training class.

Challenging the Program

Experienced students can challenge the MEDIC First Aid Emergency Oxygen training program using performance evaluations. Participants must arrive prepared for skill testing and must perform competently without assistance on all performance evaluations. A warm-up or skills review session may be conducted before the challenge, but must be clearly separated from the challenge itself. Students who cannot perform competently without assistance have not successfully completed the challenge. If unsuccessful, students still seeking certification must attend and complete a training class.

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Online Blended Training

Blended training combines the convenience of online learning with a shortened practical skills session in order to meet both knowledge and skill objectives.

The online learning platform used for MEDIC First Aid blended training classes is MEDIC University. This specially designed, web-based learning system allows for a variety of sensory interactions to provide users with a low-stress, easy-to-use, and convenient way to learn cognitive information.

It is important to note that students must successfully complete both the online and skills portions of blended training. Completion of the online portion alone will not result in certification.

The entire administrative process for blended training is done through Training Center Manager. A Training Center purchases blended training credits, which include a student seat in an online class and a Student Guide.

Training Centers schedule classes and add students. Students are notified by email of enrollment in the online class. Student progress can be monitored online.

To successfully complete the online class, students complete all of the lessons. Check marks will indicate which lessons have been completed. When all of the lessons are finished, the student will have the capability of printing a completion certificate for the online portion. If a class exam is included in the class, a student will have to achieve a passing score in order to complete the online class.

Skill practice and evaluation is done face-to-face in a classroom setting. Instructors must conduct and document student skill performance for the core skill objectives listed for the class being taught. Skill practice is accomplished using the same approaches available for non-blended classroom training. Sessions can be conducted for groups or for individuals. Individuals can also challenge the skills session in order to receive certification.

Program Materials

Instructor Guide

The MEDIC First Aid *Emergency Oxygen Instructor Guide* provides organized instructional guidance on how to conduct a training class. It is integrated with the Student Guide and Program Video.

Information regarding the details of the training program and how to prepare for a class are provided in the front of the guide. The majority of the guide follows a topic-by-topic approach to training that provides required Instructor activities and small-group practices. Instructions on completing the required class administration are also included.

Student Guide

The MEDIC First Aid *Emergency Oxygen Student Guide* contains the content and skill references a student needs to meet the core learning objectives. Students must have access to skill training reference materials during the class. The Student Guide provides a convenient way to provide this information. It is required to provide each student a personal printed copy of the Student Guide to take home or access to a digital version they can download online.

Program Video

The MEDIC First Aid *Emergency Oxygen Program Video* is a scenario-based presentation that provides a visual learning tool to accomplish the learning objectives. It is available on DVD and is also streamed online as a component of the online blended class.

Using the DVD, Instructors can play the entire video or select individual topics as desired.

Talk-through Scenarios

Talk-through Scenarios allow students to practice making realistic decisions in a simulated setting. This alternative small-group practice approach is suited for more experienced students or as supplemental practice to initial training.

Talk-through Scenarios can be found online in the document section of Training Center Manager or your Instructor Portal.

Class Roster/Student Record

The Class Roster/Student Record is the primary paperwork for documenting the completion of a MEDIC First Aid Emergency Oxygen training class. It can be found online in the document section of Training Center Manager or your Instructor Portal.

A Class Roster is required for every training class. Completely and accurately fill out the class information. Have students legibly fill out personal information.

A Student Record is required when Performance Evaluations are not used to document competent skills. Using the Class Roster/Student Record, check off students who are performing competently without assistance as the class progresses through skills practice.

If a Written Exam is used, document each student's successful completion on the Class Roster/Student Record.

When finished with a training class, sign and return the completed Class Roster/Student Record to the Training Center responsible for the class.

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Performance Evaluations

The competent performance of the listed skill objectives without assistance is required for certification. Performance evaluation is required when individual skill performance is not documented on the Student Record or when specified by organizational, local, or state requirement.

Performance Evaluations can be found online in the document section of Training Center Manager or your Instructor Portal.

When finished, score students as outstanding (competent), adequate (competent), or inadequate (not competent) on each Performance Evaluation. Inadequate (not competent) scores require remediation and re-evaluation. Depending on logistics, this may require individually checking off skills using the Student Record or completing another class.

Students who have not had skills checked off on the Student Record or have been scored not competent on the Performance Evaluations have not successfully completed the class.

Sign and return all Performance Evaluations to the Training Center responsible for the class.

When conducting Performance Evaluations:

- Students must perform and not verbalize skills.
- Students do not have to perform skills perfectly, just reasonably to achieve the desired outcome.
- Evaluate consistently between students.
- Avoid excessive communication.
- Do not coach students.

Written Exams

Written evaluation may be necessary when specified by organizational, local, or state requirement. It is recommended for designated responders with a duty or employer expectation to respond in an emergency and provide first aid care.

Written Exams for this class can be found online in the document section of Training Center Manager or your Instructor Portal.

Successful completion of a Written Exam requires a correct score of 70% or better. Document the successful completion of the written exam (when used), on the Class Roster/Student Record. When conducting written evaluation, take precautions to prevent cheating and allow adequate time to complete the exam.

Rate Your Program Class Evaluation

Encouraging students to provide feedback and then using that feedback to improve instruction is an essential aspect of any quality educational effort. All students are required to fill out the Rate Your Program class evaluation in order to get a certification card.

Tear-out Rate Your Program class evaluations are found in the back of each Student Guide. They can also be found online in the document section of Training Center Manager or your Instructor Portal.

The evaluation allows students the opportunity to comment on the program materials and on the Instructor's presentation style and effectiveness. Collect and return the completed Rate Your Program class evaluations to the Training Center responsible for the class.

Class Requirements

The following requirements are necessary to help ensure all students and Instructors experience a safe, enjoyable, and satisfying MEDIC First Aid Emergency Oxygen training class.

Administration

- Instructors must teach in accordance with the most recent administrative policies and procedures as described in the Training Center Administrative Manual (TCAM).
- An Instructor must be authorized to teach the MEDIC First Aid Emergency Oxygen training program in order to issue certification cards.
- It is required that a CPR or CPR/first aid training course be completed within the previous 24 months prior to taking the Emergency Oxygen training class.
- Students must demonstrate the use of gloves and a ventilation (resuscitation) mask during at least one Small Group Practice. Instructors should take necessary steps to be aware of students with latex allergies and provide suitable, non-latex barrier products for their use in class.
- There are no minimum age requirements for participation in a MEDIC First Aid Emergency Oxygen class. However, regardless of age, students must be able to competently perform the required skill objectives to receive a certification card.
- The maximum allowed ratio is 12 students to 1 Instructor. A ratio of 6 students per Instructor is recommended.

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- The student-to-Instructor ratio for lecture and discussion may be exceeded when organizational realities make small class size unachievable. However, additional MEDIC First Aid-authorized Instructors must be available to maintain the student-to-Instructor ratio for skill practice and evaluation.
- Instructors must provide access to the most current MEDIC First Aid training materials to students for use during and after the course. This is especially important in skill practice sessions. Appropriate training materials include video segments, print handbooks and skill sheets, talk-through scenarios, and projected or mobile computer-based MEDIC First Aid training materials. Each course participant must also be provided a print or digital version of the Student Guide.
- As part of an initial training class, Instructors must conduct all required segments and practices as outlined in this MEDIC First Aid Instructor Guide.
- As part of an initial training class, Instructors must show all required Program Video segments as outlined in this MEDIC First Aid *Emergency Oxygen Instructor Guide*. The online blended training class may be used as an alternative approach. Use of these training tools is highly recommended for renewal training.
- During a class, Instructors must provide informal evaluation and prompt feedback to students about their skill performance. This will allow students to evaluate their skills and correct deficiencies.
- An Instructor must verify that each student has met the required knowledge and skill objectives before issuing a certification card. The Instructor must include their registry number and Training Center ID on the card to validate it.
- Each student must fill out and return to the Instructor the Rate Your Program class evaluation. Completed evaluations must be returned to the Training Center responsible for the class.
- Instructors must complete a Class Roster/Student Record and return it to the Training Center that is responsible for the class.

Equipment

- Required Equipment
 - Visual presentation equipment (television, monitor, projector)
 - Adult CPR training manikins (6:1 maximum student-to-manikin)
 - Emergency oxygen delivery system (6:1 maximum student-to-system ratio). Each delivery system must include:
 - Filled, medical-grade oxygen cylinder
 - Oxygen regulator with flow controller
 - Connecting tubing
 - Ventilation mask (with oxygen inlet)
 - Oxygen delivery devices for breathing persons (when not using ventilation mask). This includes simple masks or non-rebreather masks (6:1 maximum student-to-device ratio).

Note: When using students as breathing persons, Instructors need to provide each student with an *unused* oxygen delivery device.

- Optional Equipment
 - Pulse Oximeter

Materials

- Required Instructional Materials
 - MEDIC First Aid *Emergency Oxygen Instructor Guide* (printed or digital)
 - MEDIC First Aid *Emergency Oxygen* Program Video
 - MEDIC First Aid *Emergency Oxygen* Class Roster/Student Record
- Optional Instructional Materials
 - MEDIC First Aid *Emergency Oxygen* Talk-through Scenarios
 - MEDIC First Aid *Emergency Oxygen* Performance Evaluations
 - MEDIC First Aid *Emergency Oxygen* Written Exam
- Required Student Materials (for each student)
 - MEDIC First Aid *Emergency Oxygen Student Guide* (printed or digital)
 - MEDIC First Aid *Emergency Oxygen* Certification Card
 - CPR mask (ventilation or resuscitation mask with one-way valve and oxygen inlet, disposable training valves or mouthpieces are okay)
 - Disposable barrier gloves
- Optional Student Materials
 - Oxygen delivery device (when using students as breathing persons in practice)

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Health and Safety

- Screen students for health or physical conditions that require modifications of skill practice.
- Follow the manufacturer recommendations for the decontamination of manikins before, during, and after training.
- When using disposable gloves in skills practice, Instructors must take necessary steps to be aware of students with latex allergies and provide suitable, non-latex barrier products for their use in class.
- Caution students to avoid awkward or extreme postures of the body.
- Caution students to avoid certain skills during student-on-student practice, including chest compressions, rescue breaths, and abdominal or chest thrusts. These skills are not appropriate for student-on-student practice and must be performed on training manikins designed for that purpose.
- Students must be informed to use proper lifting and moving techniques during a student-on-student practice in which a simulated ill or injured person is moved. Students should not participate in these practices if they have a history of back problems.

Classroom

- Classes need to be conducted in a safe and comfortable environment conducive to learning.
- A carpeted floor is preferred. However, blankets or mats may be used for practice sessions.
- Comfortable seating is important and a table or work area is quite useful.
- A monitor stand can help ensure the monitor is easily visible to all students.
- An erasable white board, blackboard, or easel and paper can be very helpful.

Classroom Safety

- All Instructors must ensure a physically safe learning environment for their students.
- Make sure there are no obvious hazards in the classroom, such as extension cords that can be tripped over.
- In addition, Instructors should be aware of the location of the nearest phone, first aid kit, AED, fire alarm pull station, and fire extinguisher.
- Instructors should have an emergency response plan in case of serious injury or illness, including evacuation routes from the classroom.
- Students should be discouraged from smoking, eating, or engaging in disruptive or inappropriate behavior.

Preview

The Case for Emergency Oxygen

Introduction

Overview

When a serious illness or injury occurs, the body's ability to use oxygen is likely to be compromised and a condition called shock will result. Emergency oxygen can help meet a person's critical need for oxygen.

Instructor Note

Explain to students that state or local regulations regarding the requirement for medical control and direction with the use of emergency oxygen can vary. Always be familiar with and comply with any state and local regulations.

Instructor Activity

- **Video** (*segment duration 2:23*)
 - Introduce and show video segment.
 - Ask for and briefly answer any questions.
- **Student Guide**
 - To review "The Case for Emergency Oxygen" refer to page 2 of the *Student Guide*.

Emphasize Key Points as needed

Key Points

1. Oxygen is essential to sustain life. When a serious illness or injury occurs, the body's ability to process oxygen can be compromised. Low levels of oxygen in the body, or hypoxia, can result in a deteriorating condition known as shock. Unless the effects of the decreased amount of oxygen can be reversed, shock can quickly progress into a life-threatening emergency.
2. Basic priority care considerations, such as maintaining a clear and open airway, ensuring adequate breathing, and controlling external bleeding, should always be your initial priorities of care for an ill or injured person.
3. The use of emergency oxygen by a first aid provider can help meet an ill or injured person's critical need for oxygen to further improve the person's outcome. Many medical authorities recommend that a person be provided the highest concentration of oxygen available during many medical emergencies.
4. Air contains about 21% oxygen. In an emergency, oxygen delivery systems can potentially increase oxygen percentages close to 100%.
5. Conditions that could benefit from emergency oxygen include the following:
 - Divers with a decompression injury
 - Serious bleeding
 - Difficulty breathing
 - Suspected internal injury
 - Warning signs of serious illness
 - Serious mechanisms of injury
6. There are few significant medical risks when providing supplemental oxygen in an emergency. When in doubt, provide emergency oxygen for someone who shows signs of respiratory difficulty, if it is available, local protocols allow, and you are trained in its use.
7. This training program will focus on how to safely and effectively provide supplemental oxygen in a medical emergency.

The Case for Emergency Oxygen

Found in the air we breathe, oxygen is the most essential element the human body requires in order to live.

When a serious illness or injury occurs, the body's ability to process oxygen can be compromised.

Low levels of oxygen in the body, or hypoxia, can result in a deteriorating condition known as shock.

Unless the effects of the decreased amount of oxygen can be reversed, shock can quickly progress into a life-threatening emergency.

Basic priority care considerations, such as maintaining a clear and open airway, ensuring adequate breathing, and controlling external bleeding, should always be your initial priorities of care for an ill or injured person.



The use of emergency oxygen by a first aid provider can help meet an ill or injured person's critical need for oxygen to further improve the person's outcome.

Many medical authorities recommend that a person be provided the highest concentration of oxygen available during many medical emergencies.

The air we breathe contains about 21% oxygen. In an emergency, oxygen delivery systems can potentially increase oxygen percentages close to 100%.

Conditions that could benefit from emergency oxygen include the following:

- Divers with a decompression injury
- Serious bleeding
- Difficulty breathing
- Suspected internal injury
- Warning signs of serious illness
- Serious mechanisms of injury

Regulatory Considerations

State or local regulations regarding the requirement for medical control and direction with the use of emergency oxygen can vary. Always be familiar with and comply with any state and local regulations.

There are few significant medical risks when providing supplemental oxygen in an emergency. When in doubt, provide emergency oxygen for someone who shows signs of respiratory difficulty, if it is available, local protocols allow, and you are trained in its use.

References

Emergency Oxygen

The MEDIC First Aid *Emergency Oxygen Student Guide* is based upon the following standards, guidelines, and recommendations:

- “2010 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment Recommendations.” *Circulation* 122, suppl. 2 (2010): S250-S581.
- “2010 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science.” *Circulation* 122, suppl. 3 (2010): S639-S946.
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- British Thoracic Society Emergency Oxygen Guideline Group. 2008. Guideline for emergency oxygen use in adult patients. *Thorax* 63(Suppl 6):vi1-vi73.
- Educating the Educator: Use of Pulse Oximetry in Athletic Training: Berry DC, Seitz RS. Educating the educator: use of pulse oximetry in athletic training. *AthlTrainEduc J*; 2012;7(2):74-80.
- United States Lifeguard Standards: An Evidence-based Review and Report by the United States Lifeguard Standards Coalition; 46-47; Jan 2011;
- FDA Compliance Policy Guide 7124.10, Chapter 24 - Devices; Oxygen Equipment - Emergency and OTC Use; 1987; U.S. Food and Drug Administration.
- FDA AND NIOSH Public Health Notification: Oxygen Regulator Fires Resulting from Incorrect Use of CGA 870 Seals. Available: <http://www.fda.gov/MedicalDevices/Safety/AlertsandNotices/PublicHealthNotifications/ucm062088.htm> [8 February 2013].
- Other sources of national training and care guidelines.



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