



High-Performance CPR

MEDIC First Aid

An HSI Company

High-Performance CPR

Student Book

Version 8.0

Purpose of this Guide

This MEDIC First Aid *High-Performance CPR Version 8.0 Student Book* is solely intended to facilitate certification in a MEDIC First Aid High-Performance CPR training class. The information in this book is furnished for that purpose and is subject to change without notice.

MEDIC First Aid certification may only be issued when a MEDIC First Aid–authorized Instructor verifies a student has successfully completed the required core knowledge and skill objectives of the program.

Notice of Rights

No part of this MEDIC First Aid *High-Performance CPR Version 8.0 Student Book* may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, or by any information storage and retrieval system, without written permission from MEDIC FIRST AID International, Inc.

Disclaimer

HSI has used reasonable effort to provide up-to-date, accurate information that conforms to generally accepted treatment recommendations at the time of publication. These recommendations supersede recommendations made in previous MEDIC First Aid® programs. Science and technology are constantly creating new knowledge and practice. Like any printed material, this publication may become out of date over time. Guidelines for safety and treatment recommendations cannot be given that will apply in all cases/scenarios as the circumstances of each incident often vary widely. Signs and symptoms may be incomplete and can vary from person to person. Do not use the information in this program as a substitute for professional evaluation, diagnosis, and treatment from an appropriately qualified physician or other licensed healthcare provider. Local or organizational physician-directed practice protocols may supersede treatment recommendations in this program. Alert emergency medical services (EMS) or activate your emergency action plan immediately if you are not sure an emergency exists or when any person is unresponsive, badly hurt, looks or acts very ill, or quickly gets worse.

Trademarks

MEDIC First Aid and the MEDIC First Aid logo are registered trademarks of MEDIC FIRST AID International, Inc.

MEDIC FIRST AID International, Inc.
1450 Westec Drive ■ Eugene, OR 97402
800-447-3177 ■ 541-344-7099

E-mail: response@hsi.com ■ Visit our website at emergencycare.hsi.com

Copyright © 2017 MEDIC FIRST AID International, Inc.
All Rights Reserved. Printed in the United States of America
First Edition—2017

High-Performance CPR

Quality Makes a Difference	1
High-Performance CPR	1
Sudden Cardiac Arrest and CPR	1
Defibrillation	2
High-Quality CPR Skills	2
Measures of High-Quality CPR Skills	3
High-Quality Chest Compressions	6
Body Mechanics	6
CPR Feedback Device	6
Skill Guide 1 — High-Quality Chest Compressions	8
High-Quality Rescue Breaths	9
Jaw Thrust with Head Tilt	9
Rescue Breath Duration and Volume	10
Skill Guide 2 — High-Quality Rescue Breaths	11
Multiple-Provider CPR	12
Team Roles	12
Integrating an AED	14
Switching Compressors	14
Skill Guide 3 — Multiple-Provider CPR	15
Tips and Tricks to Improve CPR Performance	16
Consider Protocols	16
Tips and Tricks	16
Skill Guide 4 — Interposed Breaths	18
High-Performance CPR	19
High-Performance CPR Scenario Practice	21
High-Performance CPR Scenario Practice Instructions	21
High-Performance CPR Algorithm	22
Maintaining Readiness	23
Maintain Skills	23
Scenario-based Drills	24

ADDITIONAL INFORMATION

Glossary	25
Sources	26
Endnotes	26
Knowledge Check Answers	27
Rate Your Program	28

Dedicated to Craig Aman, a firefighter/paramedic, educator, colleague, friend, and tireless advocate for improving survival from sudden cardiac arrest...

“How can We do Better?”

Preview

High-Quality Chest Compressions



Chest compressions have the greatest impact on the overall quality of CPR.

High-quality compressions need to be:

- Fast
- Fully recoiled
- Deep
- Continuous

Body Mechanics

After just a few minutes, high-quality compressions can become physically challenging. Good body mechanics can help you minimize your effort and maximize your endurance.

It is important to avoid leaning on the chest between compressions. This will allow for full recoil of the chest at the top of each compression.

CPR Feedback Device

A CPR feedback device, or manikin, can provide real-time, measured feedback to a compressor on compression rate, depth, and recoil.

The use of one when training is essential to develop muscle memory of high-quality compressions. Use one in real-life,



if possible. Real-time feedback allows for ongoing adjustments by a compressor to achieve and maintain high-quality compressions.



Knowledge Check

What are the 4 most important attributes of high-quality chest compressions?

Preview

High-Quality Chest Compressions



Position Your Hands

- Position person face up on a firm, flat surface. Kneel close to the chest.
- Place heel of one hand on center of chest, on lower half of breastbone.
- Place heel of your other hand on top of and parallel to first. You can interlace fingers to keep them off chest.



Position Your Body

- Use good body mechanics to minimize effort and maximize endurance.
- Bring your body up and over the chest so your shoulders are directly above your hands.
- Straighten your arms and lock your elbows.



Compress

- Push straight down, at least 2 inches, bending at the waist as a fulcrum point and using your upper body weight to help compress.
- Lift hands and allow chest to fully recoil to its normal position. Move immediately into down stroke of next compression.
- Avoid leaning on chest at the top of each compression.
- Continue compressions at a rate of 100 to 120 times per minute.



Maintain Quality

- Use a CPR feedback device to ensure you are continuously meeting depth and rate guidelines.
- Continue uninterrupted for 2 minutes to get a sense of how tiring ongoing compressions can be.

MEDIC First Aid

An HSI Company

MEDIC FIRST AID International, Inc.

1450 Westec Drive

Eugene, OR 97402 USA

800-447-3177 ■ 541-344-7099 ■ 541-344-7429 fax

emergencycare.hsi.com

High-Performance CPR



Making the Workplace and Community Safer.