

(Second Edition)

A Manual on Cardiac Resuscitation

By

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Cleveland, Ohio



CHARLES C THOMAS • PUBLISHER
Springfield • Illinois • U.S.A.

CHARLES C THOMAS • PUBLISHER
BANNERSTONE HOUSE
301-327 East Lawrence Avenue,
Springfield, Illinois, U.S.A.

*Published simultaneously in the British Commonwealth
of Nations by*

BLACKWELL SCIENTIFIC PUBLICATIONS, LTD., OXFORD, ENGLAND

Published simultaneously in Canada by
THE RYERSON PRESS, TORONTO

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CHARLES C THOMAS • PUBLISHER
First Edition, 1954
Second Edition, 1958

Library of Congress Catalog Card Number: 57-13258

*Printed in Cape Girardeau, Mo.,
in the United States of America*

**A MANUAL ON
CARDIAC RESUSCITATION**

DEDICATED
To my wife
Helen Johnson Hosler

FOREWORD

WITHIN THE memory of those of us who have practiced medicine during the last four decades, the mystery of chest surgery has been resolved. The diagnosis of brain lesions and their surgical relief, presently offer as much hope as we formerly associated with pelvic and abdominal surgery. Now, like lightening across the starless heavens of a stormy night, open chest cardiac resuscitation, illuminates the utter hopelessness which has always followed upon the announcement "the heart has ceased to beat, the patient is dead."

The blinding impact of this reality is naturally followed by the recoil, this has never been, this is not realistic. Our professional understanding requires a period of readjustment to the glare. Reason and logic demand the support of clinical demonstration, observed personally, supported by post-operative confirmation before we assent. Because of the nature of the issue, however, acceptance is quickly replaced by enthusiastic support.

Dr. Claude S. Beck's pioneering efforts in this vital and dramatic field have become an important

part of the History of Medicine. Dr. Robert M. Hosler, his Associate, has presented the logical approach to the problem, once each month, for almost a decade. He repeatedly confirms by clinical demonstrations and post-operative reports the inescapable conclusion that "the hope" of open chest cardiac resuscitation has become a blazing reality.

For those who would question these statements as over-enthusiastic we would suggest: Experience the feel of a dog's beating heart within your hand. Cause this heart to fibrillate and see the blood pressure drop to zero. Note the restoration of this pressure to normal in the electromanometer, activated solely through the purposeful, repeated pressure of your fingers and thumb. See the procedure repeated twenty times by twenty different hands upon the same heart. Observe the automatic beat at the end of this sequence. Then place the question—"Can I ever again, deny a heart, which has ceased to beat, this one and only chance of survival?"

Your answer will confirm the fact that you are now oriented in the glare of this new, this single hope, of one who is functionally dead. "May he rest in Peace" through the Grace of God, may now become—"Arise and walk."

PALUEL J. FLAGG. M.D.

September 22, 1957

FOREWORD

THE DEVELOPMENT of the resuscitation technique outlined in this manual is one of the best pieces of research and development I have ever witnessed. Although it is so simple in its present form that it can be learned in a few hours, its development took many hundreds of hours in the laboratory and a great deal of learning things that "were not so."

It is impossible to put a value on this work for one cannot estimate how much a human life is worth. If all surgeons learn the technique outlined in this manual, there can be no question the savings to society will be of major importance. The immense effort and careful, ingenious work of Doctor Robert M. Hosler and Doctor Claude S. Beck will be paid off in lives otherwise lost.

JAMES H. RAND, III, Sc.D. (Hon.)
Trustee Cleveland Area Heart Society

September 1, 1952

PREFACE TO THE SECOND EDITION

RESUSCITATION which dates back to antiquity has shown considerable development in the past few years. At the time of the publication of the first edition it was discreetly felt that these life-saving principles should apply only to those persons who die in or near the operating room. However, it was stated that "Future developments will make it practical to enlarge the scope of this life-saving procedure."

The time has now come to expand its frontier and to consider its successful application in many situations. Resuscitation is in its infancy, and it will continue to expand in its practical application.

The widespread circulation of this small book is a source of inspiration and gratification to the author. Slowly the domain of cardiac resuscitation is no longer associated with cardiac surgery, but rightfully has become a useful tool of all surgeons as well as the medical and dental professions in general. The question now arises whether or not it will become an adjunct to those non-professional groups who are technically trained in resuscitation, those

most likely to reach the victim first.

The author wishes to thank Doctor Robert A. Hingson for the ingenious and enthusiastic chapter, Oxygen, the Fuel of Life, which deals with respiratory resuscitation.

I am indebted to Miss Verna Metzger for typing the manuscript. My thanks are extended to Miss Rose Beckman for aid with the bibliography. I am greatly appreciative of the conscientious proof reading which was done by my wife.

R. M. H.
June 30, 1957.

PREFACE

IT IS THE PURPOSE of this handbook to present a practical method for combating one of the most terrifying emergencies which can ever confront the surgeon and anesthetist in the operating room. Practicing physicians are interested in practical methods, and any attempt to delve too deeply into theory in this problem may lead to confusion. A crystal clear understanding of the problem and a step by step application of the procedure will often result in saving a human life. At times it is a downright simple task—in fact so simple on certain occasions that it leads one to speculate that many have succumbed who might have been saved.

This subject has begged for recognition for at least fifty years and it is difficult to understand why this vital matter was not taught or mentioned in most of the medical schools.

It is presumed that there is a definite need for a handbook upon this subject, as the author has had numerous requests for some type of manual which will give a concise overall portrayal of the treatment and understanding a cardiac arrest. These requests have been for a reference book which may serve as a

"refresher" and have come chiefly from those doctors and anesthetists who already have taken the course in Cardiac Resuscitation which has been presented in Cleveland, Ohio, since November, 1950.

This book is not necessarily intended for the accomplished thoracic surgeon, but it will fulfill the needs of doctors carrying out all types of surgery. The concept that any doctor is and should be capable of carrying out this resuscitative procedure is developed. It emphatically specifies the correct things to do almost as in a recipe or a chemical formula. The repetition of important basic facts has been found necessary in the teaching of this life-and-death matter. Although the circumstances may not always be ideal, any reasonable attempt at cardiac resuscitation is invariably justified.

The author wishes to thank the following friends for their help: Mr. Lewis Zender of the U. S. Steel Corporation; Mr. V. O. McCreight of University School; Mrs. John B. Dempsey; and Doctor Frederick A. Collier, whose confidence in this work was highly encouraging. The support given by the following colleagues in our Course in Cardiac Resuscitation is greatly appreciated: Doctors Fred R. Mautz, Donald Hale, B. B. Sankey, Robert Hingson, David Leighninger, James Rand, and Kenneth Wolfe.

My mentor, teacher, and esteemed friend, Claude S. Beck, has done more than any other single in-

dividual in bringing to the profession practical principles of resuscitation.

The late Doctor R. J. Whitacre kindly consented to write the chapter on Danger Signals heralding this catastrophe. The author is extremely grateful for this, as an experienced anesthesiologist is the only person qualified to present this phase.

The bibliography is not extensive on this subject; nevertheless, the author has tried to be fairly complete in it, and if any name has been omitted, it is an oversight and has not been intentional. No formal system of references has been used; consequently, the bibliography is found at the end of the chapters and at the end of the manual.

R. M. H.

December 1, 1952

CONTENTS

FOREWARD	vii
PREFACE TO SECOND EDITION	xi
PREFACE	xiii
I. INTRODUCTION	3
II. HISTORY	7
III. GENERAL CONSIDERATIONS	16
IV. ADDITIONAL CONSIDERATIONS	21
V. INCIDENCE	26
VI. MECHANISM OF THE HEART BEAT	33
Development of Cardiac Standstill ...	36
Ventricular Fibrillation	39
VII. OXYGEN AND THE BRAIN	44
VIII. ETIOLOGY	52
Predisposing Factors Contributing to	
Cardiac Arrest Prior to the Operation .	54
Drugs	54

Cardiac Disease	58
Vital Capacity	58
Position of the Patient	59
Cardiac Filling	60
Anemia	61
Nutrition	62
Anxiety	62
Shock	63
Speed of Induction	63
Errors	63
Temperature	64
Racial Predisposition	64
Other Predisposing Factors Possibly Present During the Operation	65
Duration of Operation	65
Hypoxia	66
Reflex Stimulation	66
Manipulation of the Heart	67
Anesthetic Agents	68
Tracheal Obstruction	71
Carbon Dioxide	71
Miscellaneous Factors	72
IX. PREVENTIVE MEASURES	74
Intratracheal Intubation	84
X. DANGER SIGNALS OF CARDIAC ARREST	88

XI. EQUIPMENT FOR RESUCITATION	94
Equipment for Anesthetist	94
Resuscitation Kit	94
Necessary Drugs	96
Defibrillator	96
Mechanical Respirator	103
Equipment	106
XII. STEPS IN CARDIAC RESUSCITATION	107
Things Not to Do	111
Re-establishment of the Oxygen System (the Emergency Act)	112
Restoration of the Heart Beat	119
Cardiac Standstill	119
Ventricular Fibrillation	121
Step by Step Program of Action for Re- establishment of the Oxygen System	129
Step by Step Program for Restoration of Heart Beat	130
XIII. METHODS OF CARDIAC MASSAGE	131
Massage with Intact Pericardium	132
Subdiaphragmatic Approach	132
Transdiaphragmatic Approach	134
Transthoracic Approach	134
Massage with One Hand	134
Massage with Both Hands	136

Assisted Massage	139
Rate of Massage	139
Suction Cup Massage	140
XIV. CLOSURE OF THE CHEST	141
XV. POST-OPERATIVE MANAGEMENT	145
XVI. RESULTS	152
XVII. FIELDS OF APPLICATION	154
Acute Coronary Insufficiency with Mechanism Death	156
Electrocution	158
Drowning	160
Heart Block	162
Asphyxia	163
Paralysis of Respiratory Center	164
Air Embolism	164
Acute Carbon Monoxide Poisoning	165
New Born Infants	167
XVIII. THE COURSE IN CARDIAC RESUSCITATION ...	168
XIX. OXYGEN, THE FUEL OF LIFE	180
Fundamental Considerations	185
Differences in Children and Adults	193
XX. LEGAL ASPECTS	195
BIBLIOGRAPHY	199
INDEX	203