

LIPPINCOTT
WILLIAMS &
WILKINS



SPIRAL[®]
MANUAL

(英文原版)

The Trauma Manual

Second Edition

配英汉索引

创伤手册

Edited by
Andrew B. Peitzman
Michael Rhodes
C. William Schwab
Donald M. Yealy
Timothy C. Fabian



Lippincott Williams & Wilkins Inc. 授权
天津科技翻译出版公司出版

LIPPINCOTT
WILLIAMS &
WILKINS



SPIRAL[®]
MANUAL

(英文原版)

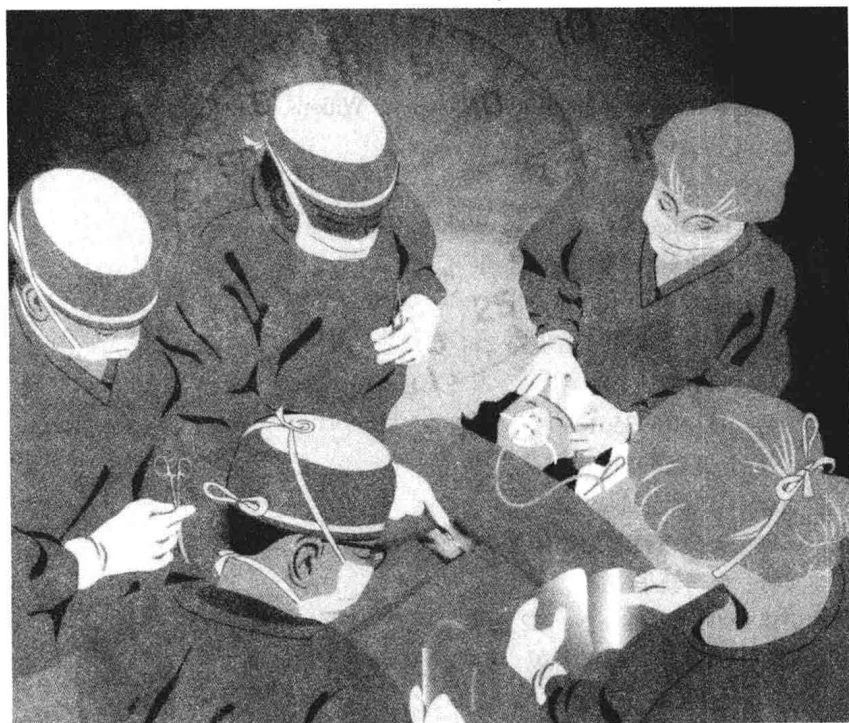
The Trauma Manual

Second Edition

配英汉索引

创伤手册

Edited by
Andrew B. Peitzman
Michael Rhodes
C. William Schwab
Donald M. Yealy
Timothy C. Fabian



Lippincott Williams & Wilkins Inc. 授权

天津科技翻译出版公司出版

著作权合同登记号:图字:02-2002-106

图书在版编目(CIP)数据

创伤手册 = The Trauma Manual / (美)佩茨曼 (Peitzman, A. B.) 等编著. - 影印本. - 天津:天津科技翻译出版公司, 2003. 1

(SPIRAL[®] MANUAL 系列丛书)

ISBN 7-5433-1569-6

I. 创... II. 佩... III. 创伤外科学-手册-英文 IV. R64-62

中国版本图书馆 CIP 数据核字 (2002) 第 073090 号

Copyright © 2002 by Lippincott Williams & Wilkins Inc.

All rights reserved. This book is protected by copyright. No part of this book may be reproduced in any form or by any means, including photocopying, or utilized by any information storage and retrieval system without written permission from the copyright owner.

Reprint authorized by Lippincott Williams & Wilkins Inc. Reprint is authorized for sale in the People's Republic of China only.

授权单位: Lippincott Williams & Wilkins Inc.

出 版: 天津科技翻译出版公司

出 版 人: 邢淑琴

地 址: 天津市南开区白堤路 244 号

邮政编码: 300192

电 话: 022-87893561

传 真: 022-87892476

E - mail: tsttbc@public.tpt.tj.cn

印 刷: 天津市蓟县宏图印务有限公司印刷

发 行: 全国新华书店

版本记录: 900×1168 32 开本 19.25 印张 600 千字

2003 年 1 月第 1 版 2003 年 1 月第 1 次印刷

定价:48.00 元

(如发现印装问题,可与出版社调换)

This book is dedicated to those who have given their lives, and those who daily risk their lives, in the care of the injured.

CONTRIBUTING AUTHORS

Louis H. Alarcon, M.D.

Fellow, Department of Surgical Critical Care, University of Pittsburgh, Pittsburgh, Pennsylvania

Harry L. Anderson, III, M.D., F.A.C.S., F.C.C.M.

Clinical Associate Professor, Department of Surgery, University of Pennsylvania School of Medicine, Philadelphia; Attending Surgeon, Department of Surgery and Trauma, St. Luke's Hospital, Bethlehem, Pennsylvania

Randall L. Beatty, M.D.

Assistant Professor, Department of Ophthalmology, University of Pittsburgh; Chief, Orbital and Oculoplastic Surgery, University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania

Tiffany K. Bee, M.D.

Assistant Professor, University of Tennessee Health Science Center; Attending Surgeon, Department of Surgery, University of Tennessee, Memphis, Tennessee

Steven L. Bernard, M.D.

Assistant Professor of Surgery, Division of Plastic and Hand Surgery, School of Medicine, Case Western Reserve University; Department of Surgery, MetroHealth Medical Center, Cleveland, Ohio

Timothy R. Billiar, M.D.

George Vance Foster Professor of Surgery / Chairman, Department of Surgery, University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania

Darrell C. Boone, M.D.

Assistant Professor of Surgery, Discipline of Surgery, Memorial University of Newfoundland; Attending Surgeon / Critical Care Physician, Health Sciences Centre, St. John's, Newfoundland, Canada

Marilyn J. Borst, M.D.

Henry Ford Hospital, Detroit, Michigan

Kimberly K. Cantees, M.D.

Director of Perioperative Services, St. Clair Hospital, Pittsburgh, Pennsylvania

Keith D. Clancy, M.D.

Medical Director, Trauma and Surgical Critical Care Services, York Hospital, York; Clinical Assistant Professor of Surgery, Pennsylvania State College of Medicine, Hershey, Pennsylvania

John S. Cole, M.D., F.A.C.E.P.

Assistant Professor, Department of Emergency Medicine, University of Pittsburgh, Pittsburgh; Medical Director, STAT Med Evac, West Mifflin, Pennsylvania

Martin A. Croce, M.D.

Professor and Chief, Trauma and Critical Care, Department of Surgery, University of Tennessee Health Science Center, Memphis, Tennessee

G. Paul Dabrowski, M.D.

Assistant Professor, Department of Surgery, Division of Trauma and Surgical Critical Care, Hospital of the University of Pennsylvania, Philadelphia, Pennsylvania

xii Contributing Authors

Joseph M. Darby, M.D.

Associate Professor, Department of Anesthesiology and Critical Care, University of Pittsburgh; Medical Director, Trauma Intensive Care Unit, University of Pittsburgh Medical Center, Presbyterian Hospital, Pittsburgh, Pennsylvania

Kimberly A. Davis, M.D.

Assistant Professor, Department of Surgery, Loyola University Medical Center, Maywood, Illinois

Theodore R. Delbridge, M.D., M.P.H.

Assistant Professor, Department of Emergency Medicine, University of Pittsburgh School of Medicine; Director of Emergency Services, University of Pittsburgh Medical Center, Presbyterian Hospital, Pittsburgh, Pennsylvania

J. Christopher DiGiacomo, M.D.

Associate Professor, Department of Surgery, State University of New York-Stony Brook School of Medicine, Stony Brook; Associate Director of Trauma, Associate Program Director, Department of Surgery, Nassau University Medical Center, East Meadow, New York

William F. Donaldson, III, M.D.

Chief, Division of Spinal Surgery, Associate Professor, Departments of Orthopaedic & Neurological Surgery, University of Pittsburgh Medical Center, Presbyterian Hospital, Pittsburgh, Pennsylvania

Timothy C. Fabian, M.D., F.A.C.S.

Professor and Chairman, University of Tennessee Health Science Center; Attending Surgeon, Department of Surgery, Regional Medical Center, Memphis, Tennessee

Kevin Farrell, M.D.

Assistant Professor, Department of Surgery, Emory University School of Medicine; Co-Director of the Burn Unit, Department of Surgery, Grady Memorial Hospital, Atlanta, Georgia

Michael P. Federle, M.D., F.A.C.S.

Professor, Department of Radiology, University of Pittsburgh; Chief, Abdominal Imaging, University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania

Henri R. Ford, M.D.

Chief, Department of Pediatric Surgery, Children's Hospital of Pittsburgh; Benjamin R. Fisher Professor, Department of Surgery, University of Pittsburgh School of Medicine, Pittsburgh, Pennsylvania

Heidi L. Frankel, M.D.

Associate Professor, Yale University School of Medicine; Surgical Intensive Care Unit, Department of Surgery, Yale New Haven Hospital, New Haven, Connecticut

Paul T. Freudigman, M.D.

Director of Orthopaedic Trauma, Department of Orthopaedic Surgery, Baylor University Medical Center, Dallas, Texas

Gerard J. Fulda, M.D.

Director of Surgical Critical Care and Associate Director, Department of Trauma, Christiana Hospital, Newark, Delaware; Associate Professor, Department of Surgery, Jefferson Medical College, Philadelphia, Pennsylvania

Fredrick Giberson, M.D.

Clinical Assistant Professor, Department of Surgery, Jefferson Medical College, Philadelphia, Pennsylvania; Attending Physician, Department of Surgery, Christiana Care Health Services, Newark, Delaware

Gary Goldberg, M.D.

Visiting Associate Professor, Department of Physical Medicine and Rehabilitation, University of Pittsburgh; Director, Department of Brain Injury Rehabilitation, University of Pittsburgh Medical Center Rehabilitation Hospital, Pittsburgh, Pennsylvania

Michael D. Grossman, M.D.

Assistant Professor of Surgery, Department of Surgery, University of Pennsylvania, Philadelphia; Chief, Division of Traumatology and Surgical Critical Care, St. Luke's Regional Trauma Center, Bethlehem, Pennsylvania

Gary S. Gruen, M.D.

Vice Chairman and Associate Professor, Department of Orthopaedic Surgery, University of Pittsburgh School of Medicine; Chief, Orthopaedic Trauma, Department of Orthopaedic Surgery, University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania

Linwood R. Haith, Jr., M.D.

Clinical Associate Professor, Department of Surgery, Temple University Hospital, Philadelphia; Director, Burn Treatment Center, Crozer Medical Center, Upland, Pennsylvania

C. William Hanson, III, M.D., F.C.C.M.

Professor of Anesthesia, Surgery and Internal Medicine, University of Pennsylvania School of Medicine; Medical Director, Surgical Intensive Care Unit, Section Chief, Critical Care Medicine, Department of Anesthesia, Hospital of the University of Pennsylvania, Philadelphia, Pennsylvania

Brian G. Harbrecht, M.D.

Professor, Department of Surgery, University of Pittsburgh; Director of Trauma Program, Department of Surgery, University of Pittsburgh Medical Center, Presbyterian Hospital, Pittsburgh, Pennsylvania

William S. Hoff, M.D., F.A.C.S.

Chairman, Department of Traumatology, Brandywine Hospital, Coatesville; Assistant Professor, Department of Surgery, Division of Traumatology and Surgical Critical Care, University of Pennsylvania, Philadelphia, Pennsylvania

John A. Horton, III, M.D.

Assistant Professor, Department of Physical Medicine and Rehabilitation, University of Pittsburgh; Director, Spinal Cord Injury Program, University of Pittsburgh Medical Center Rehabilitation Hospital, Pittsburgh, Pennsylvania

Jon W. Johnson, M.D.

Assistant Professor, Department of Surgery, University of Florida, Jacksonville; Surgeon, Department of Surgery and Trauma, Holmes Regional Medical Center, Melbourne, Florida

John M. Kane, III, M.D.

Assistant Professor, Department of Surgery, University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania

Donald R. Kauder, M.D., F.A.C.S.

Vice Chief, Hospital of the University of Pennsylvania; Associate Professor, Division of Traumatology and Surgical Critical Care, University of Pennsylvania, Philadelphia, Pennsylvania

James Krugh, M.D.

Associate Professor, Staff Anesthesiologist, Department of Anesthesiology, University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania

xiv Contributing Authors

Ramon Llull, M.D.

Researcher, Department of Cell Biology, University of Barcelona Medical School, Barcelona, Spain

James M. Lynch, M.D., F.A.C.S.

Associate Professor of Clinical Surgery, Department of Pediatric Surgery, University of Pittsburgh School of Medicine; Attending Surgeon, Department of Pediatric Surgery, Children's Hospital of Pittsburgh, Pittsburgh, Pennsylvania

Ajai K. Malhortra, M.D.

Assistant Professor of Surgery, Department of Surgery, Virginia Commonwealth University Health Systems, MCV Hospitals & Physicians; Medical College of Virginia, Richmond, Virginia

Donald W. Marion, M.D., F.A.C.S.

Professor, University of Pittsburgh; Associate Chief, Department of Neurological Surgery, University of Pittsburgh Medical Center Presbyterian Hospital, Pittsburgh, Pennsylvania

Robert A. Maxwell, M.D.

Assistant Professor, University of Tennessee-Chattanooga Unit; Trauma Staff, Department of Surgery, Erlanger Medical Center, Chattanooga, Tennessee

Preston R. Miller, III, M.D.

Assistant Professor, Department of Surgery, Wake Forest University Baptist Medical Center, Winston-Salem, North Carolina

Gayle Minard, M.D.

Associate Professor, Department of Surgery, University of Tennessee Health Science Center; Attending Physician, Regional Medical Center, Memphis, Tennessee

Vincent N. Mossesso, Jr., M.D.

Assistant Professor, Department of Emergency Medicine, University of Pittsburgh; Medical Director, Department of Prehospital Care, University of Pittsburgh Medical Center Health System, Pittsburgh, Pennsylvania

N. Ake Nyström, M.D., Ph.D.

Hand Surgeon / Associate Professor, Department of Plastic and Reconstructive Surgery and Orthopedics, University of Nebraska Health Systems, Omaha, Nebraska

Juan B. Ochoa, M.D.

Associate Professor, Department of Surgery, University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania

Mark W. Ochs, D.M.D., M.D.

Chair and Program Director, Department of Oral & Maxillofacial Surgery, University of Pittsburgh; Chief, Department of Hospital Dentistry, University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania

Kevin S. O'Toole, M.D., F.A.C.E.P.

Associate Professor, Department of Emergency Medicine, University of Pittsburgh School of Medicine; Associate Director, Department of Emergency Services, University of Pittsburgh Medical Center, Presbyterian Hospital, Pittsburgh, Pennsylvania

Michael D. Pasquale, M.D.

Assistant Professor, Pennsylvania State University, Hershey; Chief of Trauma / Surgical Critical Care, Department of Surgery, Lehigh Valley Hospital, Allentown, Pennsylvania

Gary T. Patterson, M.D.

Assistant Clinical Professor, Department of Surgery, University of Pittsburgh School of Medicine, Pittsburgh, Pennsylvania

Andrew B. Peitzman, M.D., F.A.C.S.

Professor & Chief, Division of General Surgery, University of Pittsburgh School of Medicine; Vice Chair for Clinical Services, Department of Surgery, University of Pittsburgh Medical Center, Presbyterian Hospital, Pittsburgh, Pennsylvania

Louis E. Penrod, M.D.

Assistant Professor, Department of Physical Medicine and Rehabilitation, University of Pittsburgh School of Medicine, Pittsburgh, Pennsylvania

Michael J. Prayson, M.D.

Assistant Professor, Department of Orthopaedic Surgery, University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania

John P. Pryor, M.D.

Assistant Professor of Surgery, Department of Surgery, University of Pennsylvania Health System; Faculty Member, Division of Traumatology and Surgical Critical Care, Hospital of the University of Pennsylvania, Philadelphia, Pennsylvania

James F. Reilly, M.D., F.A.C.S.

Clinical Assistant Professor, Department of Surgery, University of Pennsylvania, Philadelphia; Associate Director—Trauma Program, Department of Traumatology, St. Luke's Hospital, Bethlehem, Pennsylvania

Patrick M. Reilly, M.D., F.A.C.S.

Associate Professor of Surgery, Department of Surgery, Division of Traumatology and Surgical Critical Care, Hospital of the University of Pennsylvania, Philadelphia, Pennsylvania

Michael Rhodes, M.D., F.A.C.S.

Professor, Department of Surgery, Thomas Jefferson University; Chairman, Department of Surgery, Christiana Care Health Services, Wilmington, Delaware

Therese S. Richmond, Ph.D., C.R.N.P., F.A.A.N.

Associate Professor, Department of Trauma and Critical Care Nursing, School of Nursing, University of Pennsylvania; Researcher, Division of Traumatology and Surgical Critical Care, University of Pennsylvania Health System, Philadelphia, Pennsylvania

Kathy J. Rinnert, M.D., M.P.H.

Assistant Professor of Emergency Medicine, Department of Surgery, University of Texas Southwestern Medical Center; Emergency Medicine Faculty, Department of Emergency Services, Parkland Health and Hospital System, Dallas, Texas

Michael Rodricks, M.D.

Anesthesiologist and Intensivist, Department of Anesthesiology and Critical Care Medicine, Florida Hospital, Orlando, Florida

Ronald N. Roth, M.D., F.A.C.E.P.

Associate Professor, Department of Emergency Medicine, University of Pittsburgh; Chief, Division of Emergency Medical Services, Department of Emergency Medicine, University of Pittsburgh Health System, Pittsburgh, Pennsylvania

Michael F. Rotondo, M.D., F.A.C.S.

Professor and Vice Chair, Department of Surgery, Brody School of Medicine at East Carolina University; Chief, Department of Trauma and Surgical Critical Care, Pitt County Memorial Hospital, Greenville, North Carolina

James M. Russavage, M.D., D.M.D.

Assistant Professor, Department of Surgery, Division of Plastic and Maxillofacial Surgery, University of Pittsburgh, Pittsburgh, Pennsylvania

xvi Contributing Authors

Michael Russell, M.D.

Assistant Professor, Department of Anesthesia, University of Pennsylvania; Staff Anesthesiologist and Intensivist, Department of Anesthesia and Surgical Critical Care, Hospital of the University of Pennsylvania, Philadelphia, Pennsylvania

Michael G. Scheidler, M.D.

Chief Resident, Department of General Surgery, Allegheny General Hospital, Pittsburgh, Pennsylvania

C. William Schwab, M.D., F.A.C.S.

Professor, Department of Surgery, University of Pennsylvania School of Medicine; Chief, Division of Traumatology and Surgical Critical Care, University of Pennsylvania Medical Center, Philadelphia, Pennsylvania

Michael B. Shapiro, M.D., F.A.C.S.

Assistant Professor, Department of Surgery, Division of Traumatology and Surgical Critical Care, Hospital of the University of Pennsylvania, Philadelphia, Pennsylvania

Bradley S. Taylor, M.D., M.P.H.

Chief Resident, Department of Cardiothoracic Surgery, University of Pittsburgh, Pittsburgh, Pennsylvania

Glen Tinkoff, M.D.

Medical Director of the Trauma Program, Christiana Care Health Services, Newark, Delaware; Clinical Associate Professor, Department of Surgery, Thomas Jefferson University Medical College, Philadelphia, Pennsylvania

Samuel A. Tisherman, M.D.

Associate Professor, Departments of Surgery and Anesthesiology / Critical Care Medicine, University of Pittsburgh, Pittsburgh, Pennsylvania

Ricard N. Townsend, M.D.

Associate Professor, Department of Surgery, University of Pittsburgh School of Medicine, University of Pittsburgh Medical Center, Presbyterian Hospital, Pittsburgh, Pennsylvania

Owen T. Traynor, M.D., F.A.C.S.

Instructor, Department of Emergency Medicine, University of Pittsburgh; Director of Emergency Medical Services, Department of Emergency Medicine, St. Clair Memorial Hospital, Pittsburgh, Pennsylvania

Rade B. Vukmir, M.D.

Clinical Associate Professor, Departments of Emergency Medicine, University of Pittsburgh, Pittsburgh; Director, Department of Emergency, Northwest Medical Center, Franklin, Pennsylvania

William C. Welch, M.D., F.A.C.S.

Associate Professor, University of Pittsburgh School of Medicine; Director of Spine Specialty Center and Neurological Spine Services, Department of Neurosurgery, University of Pittsburgh Medical Center, Presbyterian University Hospital, Pittsburgh, Pennsylvania

Donald M. Yealy, M.D., F.A.C.E.P.

Attending Physician & Vice Chair, Department of Emergency Medicine, University of Pittsburgh Medical Center; Professor, Department of Emergency Medicine, University of Pittsburgh, Pittsburgh, Pennsylvania

Bruce H. Ziran, M.D.

Assistant Professor, Department of Orthopaedic Surgery, University of Pittsburgh, Presbyterian Hospital, Pittsburgh, Pennsylvania

FOREWORD TO THE FIRST EDITION

The advent of another text in the important field of trauma care should prompt a careful examination of the motives of the editors and authors, their experience in this field, and their intentions in creating such a work. Their efforts should be weighed in a balance that measures the elements of the practical against the academic base upon which clinical care must be based: in short, the interplay of the art and the science of trauma care.

Underlying any manual outlining the clinical care of the injured patient should be a philosophy that defines the foundations of trauma care. Recognition of the multidisciplinary nature and breadth of trauma care—from prevention to rehabilitation and outcome measurement—and the basic philosophy of the “team approach” must be woven into the fabric of the work.

All this is not an easy task, and whether the intentions of the editors are achieved will depend heavily upon their experience in the actual provision of care, their exposure to students and of students to them, and the team that they have assembled to compose *The Trauma Manual*.

For these reasons we can expect much from this effort. The editors and authors here represent a young and vibrant cadre of clinicians who have been instrumental internationally in the definition and promotion of the art and science of trauma care. They are doers *and* thinkers who provide clinical care, and doers *and* dreamers who have a track record in the research that is so vital to the specialty.

This is perhaps the first comprehensive but concise trauma manual conceived during and based upon the significant strides made over the past decade in the management of patients in the “golden hour.” The team assembled by the editors has been chosen with obvious care, representing clinicians who both do and teach. From beginning to end, the philosophy of a systems approach to the management of trauma and the importance of an efficient yet caring team approach are ever present in this work. The importance given to the recognition of patterns of injury reflects the clinical experience of the cadre of authors, as does the organized approach to diagnosis and early management. All this is presented against a background of applied anatomy and physiology woven into a clinical context. The prominence afforded to prehospital care and transport is testimony to the breadth of the view and experience of the editors, and reflects current thinking in this increasingly recognized field of care. The inclusion of an up-to-date review of pain management, social and family aspects of the critically injured patient, critical care, and rehabilitation illustrates the breadth of *The Trauma Manual* and its value to clinicians and students alike.

In its presentation and intention, *The Trauma Manual* reflects throughout a respect for students and clinicians at all levels of training and experience. *The Trauma Manual* demonstrates an economy of style that is fitting for the practical volume that it is designed to be. This is no small achievement by the editors.

If the measure of the value of a teaching manual is the achievement of a balance between accuracy and practicality, between the art and the science of clinical care, then this work is valuable indeed. It should evoke from students and clinicians admiration for a job well done on the part of the editors and authors, if not a sense of gratitude at the end of a long shift in the trauma center or from the clinician in a small hospital. This text can rest with dignity on the desk of the academic, or in the pocket of a first-year student in the late-night hours of a first night on call.

Ronald D. Stewart, O.C., B.A., Bsc., M.D., F.R.C.P.C., F.A.C.E.P., Dsc.
Professor of Emergency Medicine and Community Health and Epidemiology
Dalhousie University, Halifax, Nova Scotia, Canada
and Adjunct Professor of Emergency Medicine
University of Pittsburgh
Pittsburgh, Pennsylvania

FOREWORD TO THE FIRST EDITION

In 1966, two trauma centers were simultaneously formed in Chicago and San Francisco. Three years later, Dr. R.A. Cowley established the first statewide system in the state of Maryland. The development and maturation of trauma systems have yielded multiple positive by-products. The Optimal Resources Document of the American College of Surgeons Committee on Trauma requires that Level I Trauma Centers have a separate and identifiable trauma service. This in turn has led to the development of trauma and critical care fellowships. Residents and medical students now learn the principles of trauma care in a far more organized and scholarly manner.

The Trauma Manual is not just another book. It has been specifically crafted for the medical student, resident, and trauma fellow, and it has been designed specifically to be carried in their white jacket pockets. The editors have created a pragmatic, no-nonsense quick reference book for the people in the trenches. The editors have captured the principles of injury mechanisms, prehospital care, resuscitative care, operative priorities, and critical care. I predict that *The Trauma Manual* will be used often.

*Donald Trunkey, M.D., F.A.C.S.
Professor and Chairman
Department of Surgery
Oregon Health Sciences University
Portland, Oregon*

PREFACE

The goal of *The Trauma Manual* is to serve as a ready pocket reference for all who provide care for the trauma patient. The format of *The Trauma Manual* is that of a user-friendly pocket manual rather than a comprehensive textbook. With that said, this book contains a great deal of information covering all phases of trauma care. The major changes to the second edition of *The Trauma Manual* consist of updating information where necessary and making the book more compact to facilitate its use as a pocket reference.

The Trauma Manual is organized in a chronological fashion, following the usual events and phases of care after injury. As with the first edition, the chapters are written by authors within the appropriate specialties. The recommendations made are backed by the extensive clinical experience of these authors. Rather than listing every option in a clinical situation, a consensus recommendation is generally presented. Flow charts, sequential lists, and algorithms are used throughout as approaches to clinical problems. We have attempted to keep the content of *The Trauma Manual* practical and direct. The editors hope that this edition of *The Trauma Manual* again provides a clear, pragmatic approach to those providing care for the trauma patient.

Andrew B. Peitzman, M.D., F.A.C.S.

Timothy C. Fabian, M.D., F.A.C.S.

Michael Rhodes, M.D., F.A.C.S.

C. William Schwab, M.D., F.A.C.S.

Donald M. Yealy, M.D., F.A.C.E.P.

CONTENTS 目 录

Contributing Authors

作者 xi

Foreword

序 xvii

Foreword

序 xviii

Preface

前言 xix

1	Introduction to Trauma Care	
	创伤护理导论	1
2	Patterns of Blunt Injury	
	钝器损伤的类型	4
3	Mechanisms of Injury/Penetrating Trauma	
	损伤发病机制/穿透性创伤	10
4	The Physiologic Response to Injury	
	对损伤的生理学反应	17
5	Shock	
	休克	23
6	Measurements of Injury Severity	
	损伤严重程度的测定	28
7	Prehospital Triage	
	送医院前伤员分类	35
8	Prehospital Therapy	
	送医院前的治疗	42
9	Field Teams: Composition, Direction, and Communication with the Trauma Center	
	现场救护队:组成,指导,与创伤中心的联系	55
10	Air Medical and Interhospital Transport	
	空中医疗和医院间转运	59
11	Trauma Team Activation	
	创伤救护队的活动	65
12	Organization prior to Trauma Patient Arrival	
	创伤病人到达前的组织	69
13	Adult Trauma Resuscitation	
	成人创伤复苏	78
14	Airway Management in the Trauma Patient	

	创伤病人的气道处理	88
15	Vascular Access	
	血管穿刺	97
16	Imaging of Trauma Patients	
	创伤病人的影像	109
17	Documentation, Coding and Compliance, and EMTALA	
	文件,法规,依据和 EMTALA	119
18	Operating Room Practice	
	手术室常规	129
19	Head Injury	
	头损伤	132
20	Injuries to the Spinal Cord and Spinal Column	
	脊髓和脊柱损伤	140
21	Soft Tissue Wounds of the Face	
	面部软组织伤	157
22	Bony Oral-Maxillofacial Injuries	
	口-上颌面骨损伤	167
23	Ophthalmic Injuries	
	眼损伤	182
24	Penetrating Neck Injury	
	穿透性颈损伤	189
25	Blunt Neck Injury	
	颈部钝器损伤	198
26a	Thoracic Injury	
	胸部损伤	203
26b	Thoracic Vascular Injury	
	胸部血管损伤	224
27	Abdominal Injury	
	腹部损伤	236
28	Abdominal Vascular Injury	
	腹部血管损伤	267
29	Damage Control	
	损伤的控制	277
30	Abdominal Compartment Syndrome	
	腹部隔室综合征	284
31	Genitourinary Injuries	
	泌尿生殖系统损伤	287
32	Orthopedic Injuries	
	矫形外科损伤	296
33	Pelvic Fractures	
	骨盆骨折	310
34	Hand Trauma	

	手创伤	319
35	Compartment Syndrome and Rhabdomyolysis	
	隔室综合征和横纹肌溶解	335
36	Peripheral Vascular Injuries	
	周围血管损伤	340
37	Soft-Tissue Trauma	
	软组织创伤	352
38	Priorities in the ICU Care of the Adult Trauma Patient	
	在 ICU 护理的成人创伤病人的优先项目	356
39	Commonly Missed Injuries and Pitfalls	
	常遗漏的损伤和易犯的错误	380
40	Anesthesia for the Trauma Patient	
	创伤病人的麻醉	386
41	Trauma Pain Management	
	创伤疼痛的处理	396
42	Hypothermia, Cold Injury, and Drowning	
	低温、冷损伤和淹溺	404
43	Blood Transfusion and Complications	
	输血和并发症	411
44	Nutrition/Metabolism in the Trauma Patient	
	创伤病人的营养/代谢	420
45	Support of the Organ Donor	
	器官供体的保养	428
46	Burns/Inhalation	
	烧伤/吸入	433
47	Pediatric Trauma	
	儿科创伤	446
48	Care of the Pregnant Trauma Patient	
	妊娠创伤病人的护理	461
49	Geriatric Trauma	
	老年人创伤	469
50	Rehabilitation	
	康复	477
51	Venous Thromboembolism	
	静脉血栓栓塞	487
52	Injury Prevention	
	损伤的预防	496
53	House Staff Responsibilities	
	住院医师的责任	503
54	Legal, Ethical and Family Issues	
	法律、伦理道德和家庭问题	508
55	Miscellaneous Procedures	

	各种其它操作程序	513
Appendix A	Injury Scales	
附录 A	损伤等级	521
Appendix B	Tetanus Prophylaxis	
附录 B	破伤风的预防	535
Appendix C	Frequently Used Forms	
附录 C	常用表格	539
	英汉索引	549