

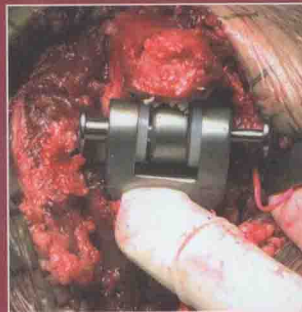
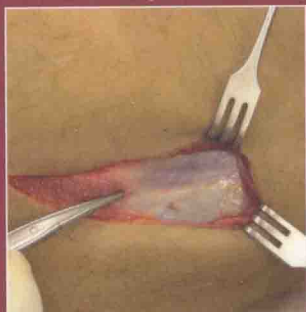
人民军医出版社出版基金项目

肘关节外科手术学

Operative Elbow Surgery

主 编 David Stanley, Ian A. Trail

主 译 姜保国 蒋协远 张长青



人民军医出版社

PEOPLE'S MILITARY MEDICAL PRESS

人民军医出版社出版基金项目

Operative Elbow Surgery

肘关节外科手术学

主 编 David Stanley, Ian A. Trail

主 译 姜保国 蒋协远 张长青

副主译 张殿英 王天兵 陈 宏

鲁 宜 张 堃



人民军医出版社

PEOPLE'S MILITARY MEDICAL PRESS

北 京

图书在版编目 (CIP) 数据

肘关节外科手术学 / (英) 斯坦利 (Stanley, D.), (英) 特雷尔 (Trail, I.A.) 主编; 姜保国, 蒋协远, 张长青译. --北京: 人民军医出版社, 2014.11

ISBN 978-7-5091-7160-8

I. ①肘… II. ①斯… ②特… ③姜… ④蒋… ⑤张… III. ①肘关节-外科手术 IV. ①R687.4

中国版本图书馆 CIP 数据核字 (2014) 第 152709 号

肘关节外科手术学

主编: Stanley, David, Trail
译者: 姜保国, 蒋协远, 张长青
策划编辑: 黄建松
文字编辑: 赵晶辉
责任编辑: 杜云祥
出版发行: 人民军医出版社
经销: 新华书店
通信地址: 北京市 100036 信箱 188 分箱
邮编: 100036
质量反馈电话: (010) 51927290; (010) 51927283
邮购电话: (010) 51927252
策划编辑电话: (010) 51927300-8057
网址: www.pmmp.com.cn

策划编辑: 黄建松 李欢 孟凡辉 文字编辑: 赵晶辉 责任审读: 杜云祥

出版发行: 人民军医出版社 经销: 新华书店

通信地址: 北京市 100036 信箱 188 分箱 邮编: 100036

质量反馈电话: (010) 51927290; (010) 51927283

邮购电话: (010) 51927252

策划编辑电话: (010) 51927300-8057

网址: www.pmmp.com.cn

印、装: 三河市春园印刷有限公司

开本: 850 mm × 1168 mm 1/16

印张: 38 字数: 1092 千字

版、印次: 2014 年 11 月第 1 版第 1 次印刷

印数: 0001-1500

定价: 350.00 元

版权所有 侵权必究

购买本社图书, 凡有缺、倒、脱页者, 本社负责调换

Operative Elbow Surgery, 1/E

David Stanley, Ian Trail

ISBN-13: 978-0-7020-3099-4

ISBN-10: 0-7020-3099-6

© 2012, Elsevier Limited. All rights reserved.

Chapter 17: "Fractures of the Distal Humerus: Plating Techniques" by Shawn W. O'Driscoll: The Mayo Clinic Foundation retains copyright to text and figures.

Chapter 27: "The Assessment and Management of Posteromedial Instability" by Mark S. Cohen: Mark S. Cohen retains copyright to his original figures.

Chapter 28: "Pathogenesis and Classification of Elbow Stiffness" by Andrew Jawa, Jesse B. Jupiter, and David Ring: David Ring retains copyright to his original figures.

Chapter 33: "Sports Injuries of the Elbow" by Andrew S. Wong and Mark E. Baratz: Mark E. Baratz retains copyright to his original figures and video.

Authorized Simplified Chinese translation from English language edition published by Elsevier Inc.

Copyright ©2014 by Elsevier (Singapore) Pte Ltd. All rights reserved.

Elsevier (Singapore) Pte Ltd.

3 Killiney Road

#08-01 Winsland House I

Singapore 239519

Tel: (65) 6349-0200

Fax: (65) 6733-1817

First Published 2014

2014 年初版

Printed in China by People's Military Medical Press under special arrangement with Elsevier (Singapore) Pte Ltd. This edition is authorized for sale in China only, excluding Hong Kong SAR, Macao SAR and Taiwan. Unauthorized export of this edition is a violation of the Copyright Act. Violation of this Law is subject to Civil and Criminal Penalties.

本书简体中文版由人民军医出版社与 Elsevier (Singapore) Pte Ltd. 在中国境内（不包括香港及澳门特别行政区和台湾）合作出版。本版仅限在中国境内（不包括香港及澳门特别行政区和台湾）出版及标价销售。未经许可之出口，视为违反著作权法，将受法律之制裁。

著作权合同登记号：图字：军-2014-110 号

序

肘关节是我们身体内最复杂的关节之一，并成为引起上肢创伤和工作相关性超负荷疾病的主要部位。

过去的几十年中，我们在肘关节解剖学和病理学的知识方面有了突破性增长。此外，肘关节疾病患者的治疗机会也得到提升。

David Stanley 和 Iran Trail 的职业生涯中有相当多的一部分时间是用来研究肘关节疾病，他们经验丰富，著述广泛。他们开展了肘关节疾病新的治疗手段，使许多患者受益。

在投入巨大的热情以及做出巨大的奉献后，他们召集了一个在肘外科领域经验都十分丰富的国际撰稿人团队，对各类肘关节疾病在当前所应用的最佳治疗手段做了一个令人印象深刻的综述。

尽管我们生活在 EBM 的时代，我们依然需要肘外科分支拥有丰富经验的从业者的信息。

我强烈向那些在日常工作中经常或者并非经常遇到肘关节疾病的从业者推荐这本书，我相信它将成为一本在全世界范围内普及的参考书。它不仅为整形外科医师而著，也包含了其他医师治疗肘部疾病的有用信息，适用于如运动医学、创伤外科和儿科学的医师使用。

W. Japp Willems 医学博士

荷兰阿姆斯特丹 Onze Lieve Vrouwe Gasthuis 医院骨科矫形外科医师

欧洲肩与肘外科协会前任主席

前言

近年来，在肘关节疾病治疗上取得的巨大进步，使得许多病人的生活质量得以提升。

参与本书编辑的作者都是肘外科医师，他们引领了肘外科择期手术和创伤治疗的突破进展，在全世界范围内赢得尊重。

书中涉及的课题都通过影像图片、线图详尽描述，并对手术步骤提供了具体指导。

我们希望这本书能够改善当今肘关节疾病患者的现状，鼓励外科医师更加详尽地思考治疗方案，以便为患者提供更好的医疗服务。

David Stanley 医学士，理学士，皇家外科学会会员

Ian Trail 医学博士 皇家外科学会会员

原著者

Deepthi Nandan Adla MS Orth MSc FRCS Ed FRCS Ed
(Tr & Orth)

Consultant Shoulder and Elbow Surgeon
University Hospitals of Leicester
Leicester
UK

Matthew G. Alexander MBBS BMedSc

Clinical Research Fellow
Orthopaedic Department
Royal Children's Hospital
Parkville
Victoria
Australia

Amjid Ali FRCS (Tr & Orth)

Consultant Shoulder and Elbow Surgeon
Northern General Hospital
Sheffield
UK

Rouin Amirfeyz MD MSc FRCS (Tr & Orth)

Consultant Hand and Elbow Surgeon
Bristol Royal Infirmary
Bristol
UK

Andrew A. Amis DSc (Eng) FIMechE

Professor of Orthopaedic Biomechanics
Department of Mechanical Engineering
Imperial College London
London
UK

Samuel A. Antuña MD PhD FEBOT

Consultant in Orthopaedic Surgery
Shoulder and Elbow Unit
Hospital La Paz
Madrid
Spain

George S. Athwal MD FRCS

Assistant Professor of Surgery and Consultant
Head and Upper Limb Centre
London
Ontario
Canada

Gregory I. Bain MBBS FRACS FA (Ortho)A PhD

Senior Visiting Orthopaedic Surgeon
Modbury Public Hospital
The Royal Adelaide Hospital
North Adelaide
Australia

Sunil K. Bajaj MS (Orth) FRCS (Tr & Orth)

Paediatric Orthopaedic Fellow
Department of Paediatric Orthopaedics and
Traumatology
Sheffield Children's NHS Foundation Trust
Sheffield
UK

José R. Ballesteros-Betancourt MD

Consultant in Orthopaedics
Department of Orthopedic Surgery
Hospital Clínic Barcelona
Barcelona
Spain

Mark E. Baratz MD
Professor and Vice Chairman
Director, Division of Upper Extremity
Department of Orthopedics
Allegheny General Hospital
Pittsburgh, PA
USA

Raul Barco Laakso MD PhD FEBOT
Associate Professor in Orthopedics
Universidad San Pablo-C.E.U. (Madrid)
Consultant in Orthopaedic Surgery
Shoulder and Elbow Unit
Hospital La Paz
Madrid
Spain

Michael J. Bell MB BS BSc FRCS
Consultant Paediatric Orthopaedic Surgeon
Sheffield Childrens Hospital
Western Bank
Sheffield
UK

Eric C. Benson MD
Assistant Professor
Department of Orthopaedics
University of New Mexico
Albuquerque, NM
USA

Nicolas Bonneville MD
Clinical Assistant
Orthopedic Department
University Hospital Purpan
Toulouse
France

Marc Bransby-Zachary MBBS (Lon) FRCS (Edin)
FRCS (Glas)
Consultant Hand and Upper Limb Orthopaedic
Surgeon
Southern General Hospital
Glasgow
UK

Colin E. Bruce MB ChB FRCS FRCS (Orth)
Consultant Orthopaedic and Trauma Surgeon
Royal Liverpool Children's Hospital, Alder Hey
Liverpool
UK

Stephen R. Cannon MB BChir MA D (Obst) RCOG
FRCS MCh(Orth)
Consultant Orthopaedic Surgeon
Royal National Orthopaedic Hospital
Stanmore
Middlesex
UK

Andrew Carr MA ChM FRCS FMedSci
Nuffield Professor of Orthopaedic Surgery
Head of Department
Director NIHR Musculoskeletal Biomedical
Research Unit
Nuffield Department of Orthopaedics,
Rheumatology and Musculoskeletal Sciences
Botnar Research Centre
University of Oxford
Oxford
UK

Robert K. W. Chan BSc (Hons) MD FRCS
Clinical Fellow
Department of Surgery
Hand and Upper Limb Centre
St Joseph's Health Centre
London
Ontario
Canada

Stefan Clockaerts MD
PhD Student and Resident
Department of Orthopedic Surgery and
Traumatology
University Hospital Antwerp
Edegem
Belgium

Mark S. Cohen MD
Professor
Director, Hand and Elbow Section
Director, Orthopaedic Education
Department of Orthopaedic Surgery
Rush University Medical Center
Chicago, IL
USA

K. P. Draviraj MBBS Dip Ortho FRCS (Tr & Orth)
Consultant Orthopaedic and Shoulder and
Elbow Surgeon
Rotherham General Hospital
Rotherham
UK

James Elliott MD FRCS
Consultant Orthopaedic Surgeon
Withers Orthopaedic Centre
Musgrave Park Hospital
Belfast
Northern Ireland
UK

Denise Eygendaal MD PhD
Upper Limb Surgeon
Orthopaedic Surgery
Amphia Hospital
Teteringen
Netherlands

James A. Fernandes MS (Orth) Mch (Orth) FRCS (Orth)
Consultant Orthopaedic Surgeon and PLRS lead
Head of Training
South Yorkshire Deanery
Sheffield Children's NHS Foundation Trust
Sheffield
UK

Pau Forcada-Calvet MD
Associate Professor of Anatomy
University of Lleida
Consultant in hand surgery
Hospital Arnau of Vilanova
Lleida
Spain

Mark A. Frankle MD
Director of Shoulder and Elbow Fellowship
Program
Shoulder and Elbow Division
Florida Orthopaedic Institute
Chief, Clinical Associate Professor
Department of Biomechanics
Division of Orthopedics
University of South Florida
Tampa, FL
USA

Lennard Funk BSc MSc FRCS (Tr & Orth) FFSEM (UK)
Professor, Salford University
Consultant Shoulder and Upper Limb Surgeon
Wrightington Hospital for Joint Disease
Wigan
Lancashire
UK

Jo Gibson MCSP
Clinical Physiotherapy Specialist
Liverpool Upper Limb Unit
Royal Liverpool University Hospital
Liverpool
UK

Henk Giele MBBS MS FRCS FRACS (Plastics) MRACMA
Hon Senior Clinical Lecturer Plastic Surgery
University of Oxford
Consultant Plastic Reconstructive and Hand
Surgeon
Nuffield Orthopaedic Centre and Oxford
Radcliffe Hospitals
Oxford Department of Plastic Surgery
Oxford Radcliffe Hospital
UK

Taco Gosens MD PhD
Orthopaedic Surgeon (Upper Limb Surgery,
Hip Surgery, Tendon Disorders)
Head of Orthopaedic Research
St. Elisabeth Hospital Tilburg
Tilburg
Netherlands

H. Kerr Graham MD FRCS (Ed) FRACS
Professor of Orthopaedic Surgery
Department of Orthopaedic Surgery
Royal Children's Hospital
Parkville
Victoria
Australia

Paul Harvie MD FRCS Orth
Girdlestone Scholar in Orthopaedic Surgery
University of Oxford
Oxford
UK

Thierry Haumont MD
Maitre de Conférence des Universités
Praticien Hospitalier
Hôpital d'enfants
CHU de Nancy
Vandoeuvre lès Nancy
France

Mike Hayton FRCS (Orth) FFSEM (UK)
Consultant Orthopaedic Hand Surgeon
Wrightington Hospital for Joint Disease
Wigan
Lancashire
UK

Anthony Hearnden MBBS BSC FRCS (Tr & Orth)
Consultant Upper Limb Surgeon
Royal Surrey County Hospital
Guildford
Surrey
UK

Catherine Hernon MBChB FRSC(Plast) MD
Consultant Plastic and Hand Surgeon
Department of Plastic and Reconstructive Surgery
Leeds General Infirmary
Leeds
UK

Adrian M Highland MB ChB MRCP FRCR
Consultant Musculoskeletal Radiologist
Diagnostic Imaging Department
Sheffield Teaching Hospitals NHS Foundation Trust
Sheffield
UK

Eduard B. Hoffman MB ChB FCGP FCS (SA) Orth
Associate Professor
Department of Orthopaedic Surgery
Head of Paediatric Orthopaedics
Red Cross Children's Hospital and Maitland
Cottage Hospital
University of Cape Town
Cape Town
South Africa

Gregory Hoy FRACS FAOrthA FACSP FASMF
Adjunct Senior Lecturer
Monash University Department of Surgery
Hand and Upper Limb Surgeon
Melbourne Orthopaedic Group
Victoria
Australia

Jeffery Hughes MBBS FRACS (Orth)
Orthopaedic Consultant
North Shore Private Hospital
Chatswood
Sydney
Australia

Sonu A. Jain MD
Fellow in Hand and Upper Extremity Surgery
Department of Orthopaedic Surgery
Massachusetts General Hospital
Harvard Medical School
Boston, MA
USA

Andrew Jawa MD
Assistant Professor of Orthopaedic Surgery
Boston University School of Medicine
Boston, MA
USA

Hans Viggo Johannsen MD
Associate Professor
Head of Shoulder and Elbow Division,
Department of Orthopaedic Surgery (THG)
Aarhus University Hospital
Aarhus
Denmark

Pierre Journeau MD
Professeur des Universités
Praticien Hospitalier
Hôpital d'enfants
CHU de Nancy
Vandoeuvre lès Nancy
France

Jesse B. Jupiter MD

Hansjorg Wyss/AO Professor Orthopaedic Surgery
Harvard Medical School
Chief Hand and Upper Limb Surgery
Massachusetts General Hospital
Boston, MA
USA

Michael M. Kalisvaart MD

Resident in Orthopedic Surgery
Department of Orthopedic Surgery
Mayo Clinic
Rochester, MN
USA

Simon Kay BA FRCSE (Hon) FRCS (Plast)

Consultant Hand & Plastic Surgeon, Department
of Plastic, Hand & Reconstructive Surgery
President, The British Association of Plastic,
Reconstructive & Aesthetic Surgery
Professor of Hand Surgery, University of Leeds
Leeds
UK

Graham J. W. King MSc MD FRCS

Professor of Surgery
University of Western Ontario
Consultant Hand and Upper Limb Centre
St Joseph's Health Centre
London
Ontario
Canada

Pierre Lascombes MD

Professor of Orthopaedic Paediatric Surgery
Hopital d'Enfants
Nancy
France

**Christopher Little FRCS (Tr & Orth) FRCS (Eng) MBChB
BSc (Hons)**

Consultant Hand, Shoulder and Elbow Surgeon
Nuffield Orthopaedic Centre and John Radcliffe
Hospital
Oxford
UK

Manuel Llusa-Pérez MD PhD

Professor of Anatomy and Embriology
University of Barcelona
Department of Orthopedic Surgery
Hospital Vall d'Hebron
Barcelona
Spain

Pierre Mansat MD PhD

Professor of Orthopedic Surgery
Orthopedic Department
University Hospital Purpan
Toulouse
France

Carmel F. Martin MB BCH BAO FFARCSI FRCP(C)

Consultant Anaesthetist
Wrightington Hospital for Joint Disease
Wigan
Lancashire
UK

Jane McEachan MB ChB FRCS (Tr & Orth)

Consultant Orthopaedic Surgeon
Queen Margaret Hospital
Dunfermline
UK

Mark A. Mighell MD

Shoulder and Elbow Surgeon
Shoulder and Elbow Division
Florida Orthopaedic Institute
Tampa, FL
USA

Philip J. Mulieri MD PhD

Shoulder and Elbow Surgeon
Shoulder and Elbow Division
Florida Orthopaedic Institute
Tampa, FL
USA

Alastair W. Murray MD BSc (Hons) FRCS

Consultant Orthopaedic Surgeon
Honorary Senior Lecturer
Department of Orthopaedic Surgery
Royal Hospital for Sick Children
Edinburgh
UK

Odhran Murray MBChB MRCS

StR Trauma and Orthopaedics
Glasgow Royal Infirmary
Glasgow
UK

Simone Nicoletti MD

Upper Limb Fellow
Wrightington Hospital for Joint Disease
Wigan
Lancashire
UK

Tom Nunn MBChB FRCS (Tr & Orth) MWICC

Specialist Registrar
Western Infirmary
Glasgow
UK

Shawn W. O'Driscoll MD PhD

Professor of Orthopedics
Mayo Clinic
Rochester, MN
USA

Bo Sanderhoff Olsen MD PhD

Senior Consultant and Associate Professor
Head of Shoulder and Elbow Section
Orthopedic Department
Herlev Hospital
Copenhagen University
Herlev
Denmark

Lahiru Perera MBBS

Registrar
Orthopaedics and Trauma
Modbury Public Hospital
Adelaide
Australia

Dimitri Popkov MD

Praticien Hospitalier Attaché
Hôpital d'enfants
CHU de Nancy
Vandoeuvre lès Nancy
France

David Ring MD PhD

Associate Professor of Orthopaedic Surgery,
Harvard Medical School
Massachusetts General Hospital
Boston, MA
USA

James Robb BSc (Hons) FRCSEd FRCSGlasg FRCPEdin

Consultant Orthopaedic Surgeon
Honorary Senior Lecturer
Department of Orthopaedic Surgery
Royal Hospital for Sick Children
Edinburgh
UK

Lech Rymaszewski MB ChB FRCS

Consultant in Orthopaedics
Glasgow Royal Infirmary
Glasgow
UK

David Stanley MBBS BSc FRCS

Consultant Shoulder and Elbow Surgeon
Department of Shoulder and Elbow Surgery
Sheffield Teaching Hospitals NHS Foundation Trust
Sheffield
UK

Scott P. Steinmann MD

Professor of Orthopedics
Mayo College of Medicine
Rochester, MN
USA

Sumedh Talwalkar MRCS FRCS (Tr & Orth)

Consultant Upper Limb Surgeon
Wrightington Hospital for Joint Disease
Wigan
Lancashire
UK

Michael Thomas MB BS FRCS (Ed) FRCS (Orth)

Consultant Orthopaedic Surgeon
Heatherwood and Wexham Park Hospitals Trust
Wexham
Berkshire
UK

Alan J. Thurston ED MB ChB MSc (Oxon) FRACS
FNZOA

Associate Professor of Orthopaedic and Hand
Surgery

Department of Surgery and Anaesthesia
Wellington School of Medicine and Health
Sciences

University of Otago

Wellington

New Zealand

Ian A. Trail MD FRCS

Consultant Upper Limb Surgeon

Wrightington, Wigan & Leigh NHS

Foundation Trust

Wigan

Lancashire

UK

Francis Van Glabbeek MD PhD

Professor of Functional Anatomy and Orthopedics

Department of Orthopedic Surgery

Shoulder and Elbow Unit

University Hospital Antwerp

Edegem

Belgium

Matthias K. D. Vanhees MD

PhD Student and Resident

Department of Orthopedic Surgery and
Traumatology

University Hospital Antwerp

Edegem

Belgium

Roger P. van Riet MD PhD

Professor of Orthopaedic Surgery

Elbow Surgeon

Monica Hospital Monica Foundation

Antwerp

Université Libre Brussels

Belgium

Basil C. Vrettos MB ChB FRCS (Eng) FCS (SA) Orth
MMED (Orth) UCT

Honorary Consultant to the Shoulder and Elbow
Clinic

Department of Orthopaedic Surgery

Groote Schuur Hospital

University of Cape Town

Cape Town

South Africa

Adam C. Watts MBBS, BSc, FRCS (Tr and Ortho)

Consultant Elbow, Hand and Upper Limb Surgeon

Wrightington Hospital

Hall Lane

Appley Bridge

Lancashire

UK

W. Jaap Willems MD PhD

Orthopaedic Surgeon

Department of Orthopaedics

Past President SECEC/ESSSE

Onze Lieve Vrouwe Gasthuis Hospital

Amsterdam

The Netherlands

Thomas Wirth Dr Med

Professor of Orthopaedics

Department of Orthopaedics

Klinikum Stuttgart

Olgahospital

Stuttgart

Germany

Andrew S. Wong MD

Hand, Upper Extremity and Microvascular Surgery

Fellow

Allegheny General Hospital

Pittsburgh, PA

USA

Farnaz Yassaee BS MD

Former Fellow

Melbourne Orthopaedic Group

Victoria

Australia

目 录

第一部分	基础知识	1
	第 1 章 肘关节胚胎学与发育解剖学	3
	第 2 章 肘部外科解剖学	8
	第 3 章 肘关节的生物力学	22
	第 4 章 肘关节的临床评估	34
	第 5 章 肘关节影像学	51
	第 6 章 肘部的外科手术方法	70
	第 7 章 术后疼痛的缓解	83
第二部分	儿童肘关节	91
	第 8 章 儿童肱骨髁上骨折	93
	第 9 章 儿童肱骨髁上骨折的并发症及其处理	103
	第 10 章 儿童髁部骨折	111
	第 11 章 儿童桡骨近端骨折	133
	第 12 章 小儿尺骨近端骨折	148
	第 13 章 小儿肘关节脱位	156
	第 14 章 剥脱性骨软骨炎	171
	第 15 章 肘关节先天性疾病	176
第三部分	成人创伤	191
	第 16 章 成人肱骨远端骨折的治疗选择	193
	第 17 章 肱骨远端骨折：接骨板技术	203
	第 18 章 肱骨远端骨折：肱骨远端半关节成形术	212
	第 19 章 肱骨远端骨折：全肘关节置换术	221
	第 20 章 肱骨远端骨折延迟愈合及不愈合的治疗	229

第 21 章	桡骨近端骨折	239
第 22 章	尺骨鹰嘴骨折和尺骨近端以及桡骨头复杂型骨折 - 脱位	250
第 23 章	成人孟氏骨折脱位的治疗	263
第四部分	肘关节不稳定	273
第 24 章	急性肘关节脱位及治疗	275
第 25 章	肘关节不稳的发病机制	283
第 26 章	后外侧不稳定性的评估和治疗	295
第 27 章	后内侧不稳定的评价与治疗	306
第五部分	肘关节僵硬	313
第 28 章	肘关节僵硬的发病机制和分型	315
第 29 章	开放性手术治疗	321
第 30 章	关节镜治疗	335
第六部分	神经功能障碍	349
第 31 章	肘关节相关的神经卡压	351
第 32 章	麻痹性肘关节重建	365
第七部分	运动和软组织损伤	377
第 33 章	肘关节运动损伤	379
第 34 章	肘关节康复	392
第 35 章	肱骨外上髁炎与内上髁炎	406
第 36 章	尺骨鹰嘴滑囊炎	416
第 37 章	肱二头肌腱和肱三头肌腱远端撕裂	423
	第一节 肱二头肌腱远端撕裂	423
	第二节 肱三头肌腱撕裂	432
第八部分	关节炎的外科治疗	437
第 38 章	原发性肘关节骨性关节炎	439
第 39 章	关节镜治疗肘关节僵硬	447
第 40 章	切开清理术和嵌入式关节成形术	460
第 41 章	幼年特发性关节炎（类风湿关节炎）的手术治疗	475
第 42 章	风湿性关节炎：开放式滑膜切除术和关节镜滑膜切除术	485

第 43 章	全肘关节置换术	493
第 44 章	全肘关节成形术后失败病例的处理	504
第 45 章	肘关节置换术后翻修：存在骨缺损	530
第 46 章	肘关节外科手术的结果评估	538
第九部分 其他		547
第 47 章	肘关节周围的软组织覆盖	549
第 48 章	化脓性关节炎的评估和治疗	561
第 49 章	肘部肿瘤	569
第 50 章	肘部的骨化性肌炎	581
缩略词表		592

第一部分

基础知识