

Rehabilitation Medicine Quick Reference

Ralph M. Buschbacher SERIES EDITOR

MUSCULOSKELETAL, SPORTS AND OCCUPATIONAL MEDICINE

肌肉骨骼

康复医学速查从书

主编 William Micheo 译者 周谋望 陈仲强 刘 楠

图书在版编目(CIP)数据

肌肉骨骼/米歇尔主编;周谋望,陈仲强,刘楠译. 一济南:山东科学技术出版社,2014 ISBN 978-7-5331-7484-2

I. ①肌… Ⅱ. ①米… ② 周… ③ 陈… ④ 刘… Ⅲ. ①肌肉骨骼系统—康复医学 Ⅳ. ① R680.9

中国版本图书馆 CIP 数据核字(2014)第 097753号

Musculoskeletal, Sports and Occupational Medicine (9781933864495)

William Micheo, MD, Ralph Buschbacher, MD, Series Editor

Copyright © 2011 by Demos Medical Publishing, LLC. All Rights Reserved. The original English language work has been published by Demos Medical Publishing, LLC. New York, New York, USA. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise without prior permission from the publisher.

Simplified Chinese translation copyright ©2014 Shandong Science and Technology Press Co., Ltd.

图字: 15-2012-059

肌肉骨骼

主编 William Micheo 译者 周谋望 陈仲强 刘 楠

出版者: 山东科学技术出版社

地址:济南市玉函路 16号

邮编: 250002 电话: (0531) 82098082

网址: www.lkj.com.cn

电子邮件: sdkjcbs@126.com

发行者: 山东科学技术出版社

地址:济南市玉函路 16号

邮编: 250002 电话: (0531) 82098082

印刷者: 山东新华印刷厂潍坊厂

地址:潍坊市潍州路753号

邮编: 261031 电话: (0536) 2116806

开本: 850mm×1168mm 1/32

印张: 20.75 字数: 415 千

版次: 2014年7月第1版第1次印刷

ISBN 978-7-5331-7484-2

定价: 86.00 元

配给鼓励我教学和写作的我的妻子 Vanessa,我的孩子: Javier和Francisco。他们 的全面支持,激励我在做人、做事方面不断进步!

献给我的父母William和Awilda,他们的引导和帮助,使我成长为现在的我!

献给我的良怀,他们为我树立了学习的楷 模!

丛书主编

Ralph M. Buschbacher, MD

Professor, Department of Physical Medicine and Rehabilitation Indiana University School of Medicine Indianapolis, Indiana

主编

William Micheo, MD

Professor and Chair

Department of Physical Medicine and Rehabilitation and Sports Medicine

University of Puerto Rico School of Medicine San Juan, Puerto Rico

译者

周谋望 陈仲强 刘 楠

编写人员

William Alemany, MD

Department of Gynecology Hospital HIMA-San Pablo Bayamon, Puerto Rico

Roxanna Amill, MD

Physical Medicine and Rehabilitation Residency Training Program University of Puerto Rico School of Medicine San Juan, Puerto Rico

Eduardo Amy, MD

Assistant Professor
Department of Physical Medicine and Rehabilitation
and Sports Medicine
University of Puerto Rico School of Medicine
San Juan, Puerto Rico

Luis Baerga, MD

Assistant Professor Department of Physical Medicine and Rehabilitation and Sports Medicine University of Puerto Rico School of Medicine San Juan, Puerto Rico

José A. Báez, MD, FAAPMR

Assistant Professor Department of Physical Medicine and Rehabilitation and Sports Medicine University of Puerto Rico School of Medicine San Juan, Puerto Rico

Dave Bagnall, MD

Assistant Professor Department of Rehabilitation Medicine State University of New York, Buffalo Buffalo, New York Adjunct Clinical Assistant Professor New York College of Osteopathic Medicine Glen Head, New York

Zach Beresford, MD

Clinical Instructor Division of Physical Medicine and Rehabilitation University of Utah Salt Lake City, Utah

Jeffrey S. Brault, DO

Assistant Professor Department of Physical Medicine and Rehabilitation Mayo Clinic

Rochester, Minnesota

Derek S. Buck, MD, DC

Resident Physician

Department of Physical Medicine and Rehabilitation University of Arkansas for Medical Sciences Little Rock, Arkansas

Ralph Buschbacher, MD

Professor of Clinical Physical Medicine/Rehabilitation Department of Physical Medicine and Rehabilitation Indiana University School of Medicine Indianapolis, Indiana

Kevin Carneiro, DO

Assistant Professor Department of Physical Medicine and Rehabilitation University of North Carolina Chapel Hill, North Carolina

David A. Cassius, MD

Physical Medicine and Rehabilitation Clinic Seattle, Washington

Anne M. Chicorelli, DO, MPH

Orthopedic Pediatric Sports Medicine Fellow Department of Sports Medicine Children's Hospital of Boston Director Division of Sports Medicine Children's Hospital of Boston Clinical Professor of Orthopaedic Surgery Harvard Medical School Boston, Massachusetts

Gary P. Chimes, MD, PhD

Assistant Professor Fellowship Director, Musculoskeletal Sports and Spine Fellowship Department of Physical Medicine and Rehabilitation University of Pittsburgh Medical Center Pittsburgh, Pennsylvania

Larry H. Chou, MD

Medical Director
Sports and Spine Rehabilitation Division
Premier Orthopaedic and Sports Medicine
Associates, LLC
Havertown, Pennsylvania
Clinical Assistant Professor
Department of Physical Medicine and Rehabilitation
University of Pennsylvania School of Medicine
Philadelphia, Pennsylvania

John C. Cianca, MD

Adjunct Associate Professor Department of Physical Medicine and Rehabilitation Baylor College of Medicine Houston, Texas

Kenneth Cintrón, MD

Foot and Ankle Specialist Damas Hospital Ponce, Puerto Rico

Ana V. Cintrón-Rodríguez, MD, FAAPMR

Assistant Chief, Physical Medicine and Rehabilitation Residency Program Director
Department of Physical Medicine and Rehabilitation VA Caribbean Healthcare System
Assistant Professor
Department of Physical Medicine and Rehabilitation and Sports Medicine
University of Puerto Rico School of Medicine
San Juan, Puerto Rico

Ricardo E. Colberg, MD

Resident University of Puerto Rico School of Medicine San Juan, Puerto Rico

José Correa, MD

Assistant Professor
Department of Physical Medicine and Rehabilitation
and Sports Medicine
University of Puerto Rico School of Medicine
San Juan, Puerto Rico

Maricarmen Cruz-Jimenez, MD

Associate Chief of Staff for Education University of Puerto Rico School of Medicine San Juan, Puerto Rico

Shashank J. Dave, DO

Department of Physical Medicine and Rehabilitation Indiana University School of Medicine Indianapolis, Indiana

Efrain Deliz, MD

Attending Physician
Department of Orthopedic Surgery
VA Caribbean Healthcare Center
San Juan, Puerto Rico

Sheila A. Dugan, MD

Department of Physical Medicine and Rehabilitation Rush University Medical Center

Chicago, Illinois

Ignacio Echenique, MD

Associate Professor Surgery, Ad Hon University of Puerto Rico School of Medicine San Juan, Puerto Rico

Sebastian Edtinger, MD

Associate Professor
Department of Physical Medicine and Rehabilitation
Paracelsus Medical University
Salzburg, Austria

Jonathan T. Finnoff, DO

Assistant Professor
Department of Physical Medicine and Rehabilitation
Mayo Clinic
Rochester, Minnesota

Tiffany C.K. Forman, MD

Division of Sports Medicine
Department of Family Medicine and Community Health
John A. Burns School of Medicine
Honolulu. Hawaii

Michael Fredericson, MD, FACSM

Professor and Director, Physical Medicine and Rehabilitation Sports Medicine Department of Orthopedic Surgery/Physical Medicine and Rehabilitation Stanford University School of Medicine Stanford, California

Walter R. Frontera, MD, PhD

Dean
University of Puerto Rico School of Medicine
San Juan, Puerto Rico

Michael Furman, MD, MS

Fellowship Program Director
Spine and Sports Medicine Fellowship Program
Orthopedic and Spine Specialists
York, Pennsylvania
Clinical Assistant Professor
Department of Physical Medicine and Rehabilitation
Temple University School of Medicine
Philadelphia, Pennsylvania

Manuel Garcia-Ariz, MD

Chairman and Program Director Orthopaedic Surgery Training Program University of Puerto Rico School of Medicine San Juan, Puerto Rico

Beatriz García-Cardona, MD

Department of Surgery/Orthopaedics University of Puerto Rico School of Medicine San Juan. Puerto Rico

Steve Geringer, MD

Professor Department of Physical Medicine and Rehabilitation Wayne State University Detroit, Michigan

Steve Gnatz, MD

Department of Orthopaedics and Rehabilitation Loyola University Medical Center Maywood, Illinois

Juan A. González, MD

Director

Emergency Medicine Residency Training Program University of Puerto Rico School of Medicine San Juan, Puerto Rico

Ari C. Greis, DO

Clinical Instructor Department of Physical Medicine and Rehabilitation The Rothman Institute Thomas Jefferson University Philadelphia, Pennsylvania

Michael J. Gruba, MD

Resident
Department of Physical Medicine and Rehabilitation
Mayo Clinic
Rochester, Minnesota

Albert Gunjan Singh, MD

Senior Resident
Department of Physical Medicine and Rehabilitation
University of Indiana
Indianapolis, Indiana

Jonathan S. Halperin, MD

Chief, Physical Medicine and Rehabilitation Sharp Rees Stealy Medical Group Voluntary Clinical Faculty Department of Orthopedics and Rehabilitation University of California San Diego School of Medicine San Diego, California

Andrew J. Haig, MD

Department of Physical Medicine and Rehabilitation University of Michigan Ann Arbor, Michigan

Mark Harrast, MD

Clinical Associate Professor
Department of Rehabilitation Medicine, Orthopaedics, and
Sports Medicine
University of Washington
Seattle, Washington

Phillip T. Henning, DO

Clinical Instructor
Department of Physical Medicine and Rehabilitation
University of Michigan
Ann Arbor, Michigan

Michael Henrie, DO

Visiting Instructor Division of Physical Medicine and Rehabilitation University of Utah Salt Lake City, Utah

Liza M. Hernández-González, MD

Staff Physician
Department of Physical Medicine and Rehabilitation
VA Caribbean Healthcare System
Associate Professor-Ad Honorem
Department of Physical Medicine and Rehabilitation
and Sports Medicine
University of Puerto Rico School of Medicine
San Juan, Puerto Rico

Collado Herve, MD

Assistant Professor
Department of Physical Medicine and Rehabilitation
and Sport Medicine
Public Hospital of Marseille
Marseille University School of Medicine
Phocea Medical Center
Marseille, France

Anne Z. Hoch, DO

Professor
Department of Physical Medicine and Rehabilitation
Women's Sports Medicine Program/Sports Medicine Center
Department of Orthopaedic Surgery
Medical College of Wisconsin
Milwaukee, Wisconsin

Devyani Hunt, MD

Assistant Professor, Physical Medicine and Rehabilitation Department of Orthopaedic Surgery and Neurology Washington University School of Medicine St. Louis, Missouri

Marta Imamura, MD, PhD

Department of Physical Medicine and

式读结束: 需要全本请在线购买: www.ertongbook

Rehabilitation University of São Paulo School of Medicine São Paulo, Brazil

Rui Imamura, MD, PhD

Professor of Otolaryngology University of São Paulo School of Medicine São Paulo, Brazil

Satiko Tomikawa Imamura, MD, PhD

Division of Rehabilitation Medicine Hospital das Clínicas University of São Paulo School of Medicine São Paulo, Brazil

Gerald Isenberg, MD, FACS, FACRS

Program Director, President
Colorectal Surgery Residency
Thomas Jefferson University Hospital
Director, Undergraduate Education
Associate Professor of Surgery
Department of Surgery
Jefferson Medical College
Philadelphia, Pennsylvania

Mimi D. Johnson, MD

Clinical Associate Professor Department of Pediatrics University of Washington Seattle, Washington

Rob Johnson, MD

Professor
Family Medicine and Community Health
University of Minnesota
Director
Primary Care Sports Medicine Fellowship Program
Hennepin County Medical Center
Minneapolis, Minnesota

David J. Kennedy, MD

Sports and Spine Fellow Rehabilitation Institute of Chicago Chicago, Illinois

Brian J. Krabak, MD, MBA

Program Director, Sports Rehabilitation
Fellowship
Assistant Professor of Physical Medicine and
Rehabilitation
Assistant Professor of Orthopaedic Surgery
Johns Hopkins Hospital
Baltimore, Maryland

Christine Lawless, MD, MBA

Associate Professor President Sports Cardiology Consultants LLC Department of Cardiology University of Chicago Chicago, Illinois

Paul H. Lento, MD

Associate Professor Department of Physical Medicine and Rehabilitation Temple University School of Medicine Philadelphia, Pennsylvania

Carmen E. López-Acevedo, MD

Professor and Associate Director
Department of Physical Medicine and Rehabilitation and
Sports Medicine
University of Puerto Rico School of Medicine
San Juan, Puerto Rico

Francisco M. López-González, MD, FAAOS

Associate Professor Department of Orthopedics University of Puerto Rico School of Medicine San Juan, Puerto Rico

Stacy L. Lynch, MD

Women's Sports Medicine Fellow Instructor Department of Orthopaedic Surgery Medical College of Wisconsin Milwaukee, Wisconsin

John MacKnight, MD

Associate Professor, Clinical Internal Medicine and Orthopaedic Surgery Co-Medical Director for Sports Medicine Primary Care Team Physician University of Virginia Charlottesville, Virginia

Eric Magrum, PT

Senior Physical Therapist University of Virginia-Healthsouth Physical Therapy Charlottesville, Virginia

Gerald Malanga, MD

Associate Professor Department of Physical Medicine and Rehabilitation New Jersey Medical School Newark, New Jersey

Carmen J. Martinez-Martinez, MD

Emergency Medicine Resident

Emergency Medicine Department University of Puerto Rico School of Medicine San Juan, Puerto Rico

Julio A. Martí nez-Silvestrini, MD

Medical Director, Outpatient Physical Medicine and Rehabilitation Practice Baystate Physical Medicine and Rehabilitation Springfield, Massachusetts

Lyle Micheli, MD

Director
Sports Medicine Fellowship Program
Division of Sports Medicine
Department of Orthopaedic Surgery
Children's Hospital
O'Donnell Professor and Clinical Professor
Harvard Medical School
Boston, Massachusetts

William Micheo, MD

Professor and Chair
Department of Physical Medicine and Rehabilitation
and Sports Medicine
University of Puerto Rico School of Medicine
San Juan, Puerto Rico

Leslie Milne, MD

Emergency Department Massachusetts General Hospital Department of Sports Medicine Children's Hospital Boston Boston, Massachusetts

Gerardo E. Miranda, MD

Chief Resident
Department of Physical Medicine and Rehabilitation
University of Puerto Rico School of Medicine
San Juan, Puerto Rico

Omar Morales-Abella, MD

Orthopaedic Resident Department of Orthopaedics University of Puerto Rico School of Medicine Trujillo Alto, Puerto Rico

Eduardo Nadal, MD

Resident
Physical Medicine and Rehabilitation Residency Program
VA Caribbean Healthcare System
San Juan, Puerto Rico

Andrew W. Nichols, MD

Professor and Chief, Division of Sports Medicine

Department of Family Medicine and Community Health John A. Burns School of Medicine Head Team Physician Athletics Department University of Hawaii at Manoa Honolulu, Hawaii

Maureen Noh, MD

Fellow, Spine and Musculoskeletal Medicine Department of Orthopaedics and Rehabilitation University of Florida Gainesville, Florida

María A. Ocasio-Silva, MD, FAAPMR

Assistant Professor Pediatric Rehabilitation Children's Hospital of Wisconsin Medical College of Wisconsin Milwaukee, Wisconsin

Antonio Otero-López, MD

Assistant Professor
Department of Orthopaedics
University of Puerto Rico School of Medicine
San Juan, Puerto Rico

Francisco J. Otero-López, MD

Assistant Professor Department of Orthopaedics University of Puerto Rico School of Medicine San Juan, Puerto Rico

Leonardo Pirillo, MD

Resident
Department of Physical Medicine and Rehabilitation
and Sports Medicine
University of Puerto Rico School of Medicine
San Juan, Puerto Rico

Heidi Prather, DO

Associate Professor, Physical Medicine and Rehabilitation Department of Orthopaedic Surgery and Neurology Washington University School of Medicine St. Louis, Missouri

Joel Press, MD

Reva and David Logan Distinguished Chair of Musculoskeletal Rehabilitation Professor, Physical Medicine and Rehabilitation Feinberg School of Medicine Northwestern University Medical Director, Spine and Sports Rehabilitation Centers Department of Physical Medicine and Rehabilitation Rehabilitation Institute of Chicago

Chicago, Illinois

Edwardo Ramos-Cortes, MD

Associate Professor
Department of Physical Medicine and Rehabilition
and Sports Medicine
University of Puerto Rico School of Medicine
San Juan, Puerto Rico

Per Renstrom, MD, PhD

Professor Emeritus Karolinska Institute Stockholm, Sweden

Joshua D. Rittenberg, MD

Department of Physical Medicine and Rehabilitation Kaiser Permanente East Bay Oakland, California

Carlos Rivera, MD

Physician
Department of Physical Medicine and Rehabilitation
Campbell Clinic
Collierville, Tennessee

Harry Alverio Rodriguez, MD

Resident
Department of Physical Rehabilitation and Sport Medicine
University of Puerto Rico School of Medicine
Trujillo Alto, Puerto Rico

Rebecca Rodriguez-Negrón, MD, DABFM

Associate Professor and Program Director Family Medicine Residency Program Department of Family Medicine University of Puerto Rico School of Medicine Loíza, Puerto Rico

Marc Safran, MD

Professor, Orthopaedic Surgery Associate Director, Sports Medicine Stanford University Stanford, California

Thomas Savadove, MD, MPH

Attending Physician
Department of Physical Medicine and Rehabilitation
Abington Memorial Hospital
Abington Rehabilitation Associates
Abington, Pennsylvania

Jay Smith, MD

Professor of Physical Medicine and Rehabilitation Departments of Physical Medicine and Rehabilitation, and Radiology Mayo Clinic Rochester, Minnesota

Joanne Snow, MD

Fellow

Department of Pediatric Rehabilitation Medical College of Wisconsin Children's Hospital of Wisconsin Milwaukee, Wisconsin

Antonio Soler, MD

Associate Professor Department of Orthopedics University of Puerto Rico School of Medicine San Juan, Puerto Rico

David A. Soto-Quijano, MD, FAAPMR

Staff Physician
Department of Physical Medicine and Rehabilitation Service
VA Caribbean Healthcare System
Associate Professor-Ad Honorem
Department of Physical Medicine and Rehabilitation
and Sports Medicine
University of Puerto Rico School of Medicine
San Juan, Puerto Rico

Channarayapatna R. Sridhara, MD

Director
Moss Rehabilitation Electrodiagnostic Center
Elkins Park, Pennsylvania
Clinical Professor
Department of Rehabilitation Medicine
Jefferson Medical College
Philadelphia, Pennsylvania

Christopher J. Standaert, MD

Clinical Associate Professor Departments of Rehabilitation Medicine, Orthopaedics and Sports Medicine, and Neurological Surgery University of Washington Seattle, Washington

William Sullivan, MD

Department of Physical Medicine and Rehabilitation University of Colorado Denver School of Medicine Denver, Colorado

Jayson Takata, MD

Pacific Physical Medicine Associates Honolulu, Hawaii

Joshua A. Thomas, DO, MBA

Premier Orthopedics and Sports Medicine One Medical Center Boulevard