

英文版

Bluestone and Stool's
PEDIATRIC OTOLARYNGOLOGY
儿科耳鼻喉学

第5版
上卷



Charles D. Bluestone • Jeffrey P. Simons • Gerald B. Healy

Margaretha L. Casselbrant
Michael J. Cunningham
David H. Chi
Joseph E. Dohar
Margaret A. Kenna

Dennis J. Kitsko
Raymond C. Maguire
David L. Mandell
Trevor J. McGill
Deepak K. Mehta

Todd D. Otteson
Reza Rahbar
Howard C. Shane
Robert F. Yellon



人民卫生出版社
PEOPLE'S MEDICAL PUBLISHING HOUSE

英文版

Bluestone and Stool

儿科耳鼻喉学

第5版

上卷

（英文第5版）

（第5版）

人民卫生出版社

图书在版编目 (CIP) 数据

儿科耳鼻喉学:英文 / (美)布鲁史东 (Bluestone, C.) 主编.
—北京: 人民卫生出版社, 2015
书名原文: Pediatric otolaryngology, 5e
ISBN 978-7-117-20467-5

I. ①儿… II. ①布… III. ①儿科学—耳鼻咽喉科学—英文
IV. ①R76

中国版本图书馆 CIP 数据核字 (2015) 第 051488 号

人卫社官网	www.pmph.com	出版物查询, 在线购书
人卫医学网	www.ipmph.com	医学考试辅导, 医学数据库服务, 医学教育资源, 大众健康资讯

版权所有, 侵权必究!

图字: 01-2015-1237

儿科耳鼻喉学(英文版)
(上、下卷)

主 编: Charles D. Bluestone

出版发行: 人民卫生出版社 (中继线 010-59780011)

地 址: 北京市朝阳区潘家园南里 19 号

邮 编: 100021

E - mail: pmph@pmph.com

购书热线: 010-59787592 010-59787584 010-65264830

印 刷: 北京盛通印刷股份有限公司

经 销: 新华书店

开 本: 889×1194 1/16 总印张: 138.5 总插页: 2

总 字 数: 4095 千字

版 次: 2015 年 4 月第 1 版 2015 年 4 月第 1 版第 1 次印刷

标准书号: ISBN 978-7-117-20467-5/R · 20468

定价(上、下卷): 599.00 元

打击盗版举报电话: 010-59787491 E-mail: WQ@pmph.com

(凡属印装质量问题请与本社市场营销中心联系退换)

Bluestone and Stool's

Pediatric Otolaryngology

5th Edition, Volume 1

Editors-in-Chief

Charles D. Bluestone, MD, FACS, FAAP

Distinguished Professor of Otolaryngology
University of Pittsburgh School of Medicine
Division of Pediatric Otolaryngology
Children's Hospital of Pittsburgh of UPMC
Pittsburgh, Pennsylvania

Jeffrey P. Simons, MD, FACS, FAAP

Associate Professor of Otolaryngology
University of Pittsburgh School of Medicine
Division of Pediatric Otolaryngology
Children's Hospital of Pittsburgh of UPMC
Pittsburgh, Pennsylvania

Gerald B. Healy, MD, FACS, FRCS(Eng), FRCS (Ire)

Professor of Otolaryngology, Harvard Medical School
Emeritus Healy Chair in Otolaryngology, Boston Children's Hospital
Emeritus Surgeon-in-Chief, Boston Children's Hospital
Boston, Massachusetts
Past President, American College of Surgeons

2014

People's Medical Publishing House—USA
Shelton, Connecticut

People's Medical Publishing House-USA

2 Enterprise Drive, Suite 509
Shelton, CT 06484
Tel: 203-402-0646
Fax: 203-402-0854
E-mail: info@pmpH-usa.com



© 2014 PMPH-USA, LTD

All rights reserved. Without limiting the rights under copyright reserved above, no part of this publication may be reproduced, stored in or introduced into a retrieval system, or transmitted, in any form or by any means (electronic, mechanical, photocopying, recording, or otherwise), without the prior written permission of the publisher.

14 15 16 17/King/9 8 7 6 5 4 3 2 1

ISBN-13 (2 volume set) 978-1-60795-018-9

ISBN-10 (2 volume set) 1-60795-018-9

eISBN-13 978-1-60795-258-9

ISBN-10 1-60795-258-0

Printed in the United States of America by King Printing Company, Inc.

Editors: Carole Wonsiewicz & Linda Mehta Copyeditor/Typesetter: diacriTech; Cover designer: Mary McKeon

Library of Congress Cataloging-in-Publication Data

Bluestone and Stool's pediatric otolaryngology / editors-in-chief, Charles D. Bluestone, Jeffrey P. Simons, Gerald B. Healy. — 5th edition.

p. ; cm.

Preceded by: Pediatric otolaryngology / [edited by] Charles D. Bluestone ... [et al.]. 4th ed. c2003.

Includes bibliographical references.

ISBN-13: 978-1-60795-018-9 (2 volume set)

ISBN-10: 1-60795-018-9 (2 volume set)

ISBN-13: 978-1-60795-258-9 (eISBN)

ISBN-10: 1-60795-258-0 (eISBN)

[etc.]

I. Bluestone, Charles D., 1932- editor of compilation. II. Simons, Jeffrey P., editor of compilation. III. Healy, Gerald B., 1942- editor of compilation.

[DNLM: 1. Otorhinolaryngologic Diseases. 2. Adolescent. 3. Child. 4. Infant. WV 140]

RF47.C4

618.92'09751—dc23

2014000079

Sales and Distribution*Canada*

Login Canada
300 Saulteaux Cr., Winnipeg, MB
R3J 3T2
Phone: 1.800.665.1148
Fax: 1.800.665.0103
www.lb.ca

Foreign Rights

John Scott & Company
International Publisher's Agency
P.O. Box 878
Kimberton, PA 19442
USA
Tel: 610-827-1640
Fax: 610-827-1671

Japan

United Publishers Services Limited
1-32-5 Higashi-Shinagawa
Shinagawa-ku, Tokyo 140-0002
Japan
Tel: 03-5479-7251
Fax: 03-5479-7307
Email: kakimoto@ups.co.jp

United Kingdom, Europe, Middle East, Africa

Eurospan Limited
3, Henrietta Street, Covent
Garden, London WC2E 8LU, UK
Within the UK: 0800 526830
Outside the UK: +44 (0)20 7845 0868
http://www.eurospanbookstore.com

Singapore, Thailand, Philippines, Indonesia,

Vietnam, Pacific Rim, Korea
McGraw-Hill Education
60 Tuas Basin Link
Singapore 638775
Tel: 65-6863-1580
Fax: 65-6862-3354
www.mcgraw-hill.com.sg

Australia, New Zealand

Elsevier Australia
Locked Bag 7500
Chatswood DC NSW 2067
Australia
Tel: 161 (2) 9422-8500
Fax: 161 (2) 9422-8562
www.elsevier.com.au

Brazil

SuperPedido Tecmedd
Beatriz Alves, Foreign Trade Department.
R. Sansao Alves dos Santos, 102,
7th floor, Brooklin Novo
Sao Paulo 04571-090, Brazil
Tel: 55-16-3512-5539
www.superpedidotecmedd.com.br

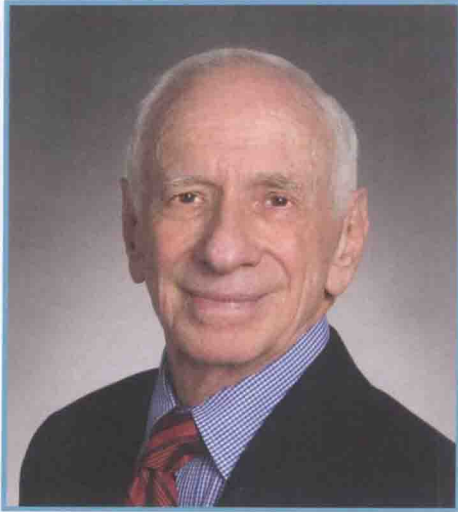
India, Bangladesh, Pakistan, Sri Lanka, Malaysia

CBS Publishers
4819/X1 Prahlad Street 24
Ansari Road, Darya Ganj, New Delhi-110002
India
Tel: 91-11-23266861/67
Fax: 91-11-23266818
Email: cbspubs@vsnl.com

People's Republic of China

People's Medical Publishing House
International Trade Department
No. 19, Pan Jia Yuan Nan Li
Chaoyang District
Beijing 100021, P.R. China
Tel: 8610-67653342
Fax: 8610-67691034
www.pmph.com/en/

Dedications

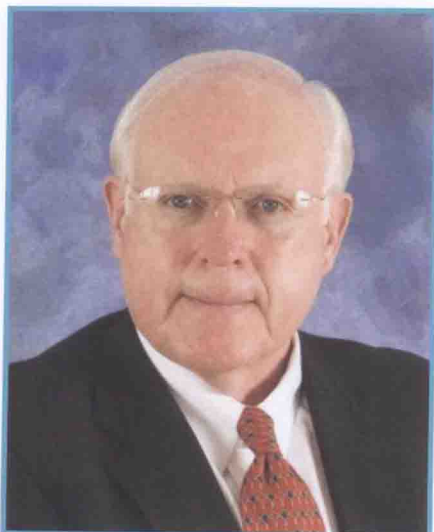


To my wife, Patsy, for 58 years of a wonderful and loving marriage, for her support and patience over the past 30 years during the countless hours of organizing, writing, and editing these five editions; and to our son Jim, his wife Maria (for her expert editing of the otitis media chapters), and our delightful granddaughters, Dane and Elyse. And lastly, to my late colleague and friend Sylvan E. Stool, coeditor for the first four editions, who collaborated with me for a year to develop the initial table of contents as we tried to codify the practice of the new subspecialty of Pediatric Otolaryngology that we had been practicing for many years.

CHARLES D. BLUESTONE, MD, FACS, FAAP

To my wife, Kate, for her love, support, and encouragement; and to my daughters, Ellie and Lily, who are a constant source of joy and inspiration; and to my parents, Dora and Howard, who have provided me with opportunities for a fine education, instilled in me a love of learning, and influenced me to strive for excellence.

JEFFREY P. SIMONS, MD, FACS, FAAP



To my loving wife, Anne, and dear children, Lisa and Laurie. Without their support, love, and wisdom, my life would be empty. Also to my teachers and mentors and the countless patients, students, residents, fellows, and colleagues who allowed me to realize my dream of caregiver and teacher.

GERALD BURKE HEALY, MD, FACS

Section Editors

Margaretha L. Casselbrant, MD, PhD

Professor of Otolaryngology
University of Pittsburgh School of Medicine
Division of Pediatric Otolaryngology
Children's Hospital of Pittsburgh of UPMC
Pittsburgh, PA

25: Vestibular Evaluation

29: Balance Disorders

David H. Chi, MD

Associate Professor of Otolaryngology
University of Pittsburgh School of Medicine
Director, Hearing Center
Division of Pediatric Otolaryngology
Children's Hospital of Pittsburgh of UPMC
Pittsburgh, PA

32: Congenital Inner Ear Anomalies

38: Complications and Sequelae of Otitis Media

104: Congenital Cysts and Sinuses of the Head and Neck

Michael J. Cunningham, MD, FACS

Otolaryngologist-in-Chief
Gerald B. Healy Chair in Pediatric
Otolaryngology, Boston Children's Hospital
Professor of Otolaryngology and Laryngology
Harvard Medical School
Boston, MA

108: Malignant Tumors of the Head and Neck

Joseph E. Dohar, MD, MS, FAAP, FACS

Professor of Otolaryngology
University of Pittsburgh School of Medicine
Professor, Department of Communication
Science and Disorders
University of Pittsburgh School of Health and
Rehabilitation Sciences
Medical Director, Pediatric Voice, Resonance
and Swallowing Center
Division of Pediatric Otolaryngology
Children's Hospital of Pittsburgh of UPMC
Pittsburgh, PA

27: Otorrhea

Margaret A. Kenna, MD, MPH, FACS, FAAP

Director of Clinical Research
Department of Otolaryngology and
Communication Enhancement
Boston Children's Hospital
Professor of Otolaryngology
Harvard Medical School
Boston, MA

31: Nongenetic Hearing Loss

Dennis J. Kitsko, DO, FACS, FAOCO

Assistant Professor of Otolaryngology
University of Pittsburgh School of Medicine
Division of Pediatric Otolaryngology
Children's Hospital of Pittsburgh of UPMC
Pittsburgh, PA

66: Pediatric Sleep Disorders

72: Management of Drooling (Sialorrhea)

Raymond C. Maguire, DO

Assistant Professor of Otolaryngology
University of Pittsburgh School of Medicine
Division of Pediatric Otolaryngology
Children's Hospital of Pittsburgh of UPMC
Pittsburgh, PA

57: Foreign Bodies of the Nose

63: Congenital Malformations of the Mouth and Pharynx: Orofacial Clefts and Related Syndromes

David L. Mandell, MD, FAAP, FACS

Center for Pediatric Otolaryngology–Head/Neck
Surgery, Boynton Beach, FL
Clinical Associate Professor, NOVA
Southeastern University
College of Osteopathic Medicine, Division of
Otolaryngology, Department of Surgery
Voluntary Associate Professor, Miller School of
Medicine, University of Miami
Affiliate Clinical Assistant Professor of
Biomedical Science, Charles E. Schmidt
College of Biomedical Science
Florida Atlantic University
Boca Raton, FL

71: Diseases of the Salivary Glands

78: Trauma to the Mouth, Pharynx, and Esophagus in Children

91: Pediatric Upper Airway Infections

Trevor J. McGill, MD

Professor of Otolaryngology and Laryngology
Associate in Otolaryngology and
Communication Enhancement
Boston Children's Hospital
Harvard Medical School
Boston, MA

107: Benign Tumors of the Head and Neck

Deepak K. Mehta, MD

Associate Professor of Otolaryngology
University of Pittsburgh School of Medicine
Director, Pediatric Aerodigestive Center
Division of Pediatric Otolaryngology
Children's Hospital of Pittsburgh of UPMC
Pittsburgh, PA

66: Pediatric Sleep Disorders

71: Diseases of the Salivary Glands

72: Management of Drooling (Sialorrhea)

Todd D. Otteson, MD, MPH

Associate Professor of Otolaryngology–Head
and Neck Surgery
University Hospitals Case Western Reserve
Medical Center

Chief, Pediatric Otolaryngology
Rainbow Babies and Children's Hospital
Cleveland, OH

43: Embryology and Anatomy of the Paranasal Sinuses

52: Congenital Malformations of the Nose and Paranasal Sinuses

76: Eosinophilic Esophagitis

Reza Rahbar, DMD, MD

Associate Otolaryngologist-in-Chief
McGill Chair in Pediatric Otolaryngology
Department of Otolaryngology and
Communication Enhancement
Boston Children's Hospital
Harvard Medical School
Boston, MA

45: Methods of Examination of the Nose, Paranasal Sinuses, Face, and Orbit

94: Pediatric Airway Stenosis: Minimally Invasive Approaches

107: Benign Tumors of the Head and Neck

Howard C. Shane, PhD, CCC-SLP

Professor, Department of Communication
Sciences and Disorders
Associate Professor, Department of Otolaryngology
and Laryngology
Director of the Center for Communication
Enhancement and the Autism Language
Program, MGH Institute of Health
Professions
Boston Children's Hospital
Harvard Medical School
Boston, MA

Robert F. Yellon, MD, FACS

Professor of Otolaryngology
University of Pittsburgh School of Medicine
Director of Clinical Services and Co-Director
Division of Pediatric Otolaryngology
Children's Hospital of Pittsburgh of UPMC
Pittsburgh, PA

35: Surgical Management of Microtia and Congenital Aural Atresia

104: Congenital Cysts and Sinuses of the Head and Neck

106: Head and Neck Space Infections

Author Listing

Alessandro de Alarcon, MD, MPH

Director, Center for Pediatric Voice Disorders
Cincinnati Children's Hospital Medical Center
Assistant Professor, Department of Pediatrics
Assistant Professor, Otolaryngology—Head and Neck Surgery
University of Cincinnati College of Medicine
Cincinnati, OH

95: Airway Surgery: Open Approach

David Albert, MD, FRCS

Senior ENT Surgeon
Great Ormond Street Hospital
London, England

83: Methods of Examination of the Pediatric Airway

Cuneyt M. Alper, MD

Professor of Otolaryngology, Division of Pediatric Otolaryngology
Director, Pediatric Otolaryngology Fellowship Program
Children's Hospital of Pittsburgh
Pittsburgh, PA

79: Caustic Injuries and Acquired Strictures of the Esophagus

Samantha Anne, MD, MS

Assistant Professor of Otolaryngology
Cleveland Clinic Children's Hospital Head and Neck Institute
Cleveland, OH

28: Tinnitus in Children

Jack B. Anon, MD

Otolaryngologist
Erie, PA

43: Embryology and Anatomy of the Paranasal Sinuses

Ellis M. Arjmand, MD, PhD

Director of the Ear and Hearing Center
Cincinnati Children's Hospital Medical Center
Director, Pediatric Cochlear Implant Program
Medical Director, Liberty Campus
Professor, Otolaryngology—Head & Neck Surgery
University of Cincinnati College of Medicine
Cincinnati, OH

32: Congenital Inner Ear Anomalies

Yasser Armanazi, DMD

Clinical Assistant Professor
Case Western Reserve School of Dentistry
Cleveland, Ohio

67: Dental and Gingival Disorders

Sonia Ayari, MD

Department of ENT—Head and Neck Surgery
Hopital Edouard Herriot
Lyon, France

87: Aspiration: Etiology and Management

L'tanya J. Bailey, DDS, MS

Department of Orthodontics and Dentofacial Orthopedics
University of North Carolina at Chapel Hill
Chapel Hill, NC

68: Orthodontic Problems in Children

Sivi Bakthavachalam, MD, FACS

Pediatric Ear, Nose, and Throat of Atlanta
Atlanta, GA

109: Thyroid

Paul W. Bauer, MD

Surgical Director
Cook Children's Medical Center Cochlear Implant Program
Fort Worth, TX

103: Neck Masses

Walter M. Belenky, MD

Otolaryngology
Children's Hospital of Michigan
Detroit, MI

47: Nasal Obstruction and Rhinorrhea

Prabhat Bhamra, MD

Clinical Fellow
Department of Otolaryngology
Division of Facial Plastic and Reconstructive Surgery
Harvard Medical School/Massachusetts Eye and Ear Infirmary
Boston, MA

48: Epistaxis

Charles D. Bluestone, MD, FACS, FAAP

Distinguished Professor of Otolaryngology
University of Pittsburgh School of Medicine
Division of Pediatric Otolaryngology
Children's Hospital of Pittsburgh of UPMC
Pittsburgh, PA

22: Methods of Clinical Examination: Ear and Related Structures

37: Otitis Media and Eustachian Tube Dysfunction

38: Complications and Sequelae of Otitis Media

J. E. Bouquot, DDS, MS

Adjunct Professor and Past Chair (retired)
Department of Diagnostic & Biomedical Sciences
University of Texas School of Dentistry, Houston, TX
Adjunct Professor, Department of Rural Health &
Community Dentistry

Past Chair Department of Oral & Maxillofacial Pathology
West Virginia University School of Dentistry
Director of Research, The Maxillofacial Center for
Education and Research

Morgantown, WV

67: Dental and Gingival Disorders

Barton F. Branstetter IV, MD

Director, Head and Neck Imaging
Clinical Director, Neuroradiology
Associate Professor of Radiology, Otolaryngology, and Biomedical Informatics
UPMC Presbyterian Radiology Department
Pittsburgh, PA
102: Imaging of Pediatric of Neck Masses

Jonathan A. Britto, BSc(hons), MB, MD, FRCS(Plast)

Consultant Plastic and Craniofacial Surgeon
The Craniofacial Unit
Great Ormond Street Hospital for Children NHS Trust
London, England
*111: Craniofacial Development and Congenital Anomaly:
A Contemporary Review of Processes and Pathogenesis*

Matthew Bromwich, MD,FRCS

Assistant Professor, Pediatric ENT
University of Ottawa
Division of Otolaryngology–Head & Neck Surgery
Children's Hospital of Eastern Ontario
Principal Investigator, Division of Oncology, CHEO Research Institute
Ottawa, Ontario, Canada
74: Pediatric Dysphagia
114: Hemangiomas and Vascular Malformations

Peter Bull, FRCS

Great Ormond Street Hospital
London, England
83: Methods of Examination of the Pediatric Airway

Thomas F. Campbell, PhD

Professor and Executive Director of the Callier Center for Communication Disorders
School of Behavioral and Brain Sciences
Department of Communication Sciences and Disorders
University of Texas at Dallas
Dallas, TX
116: Disorders of Language, Phonology, Fluency, and Voice in Children: Indicators for Referral

Stephen P. Cass, MD, MPH

Professor
Department of Otolaryngology
University of Colorado
Aurora, CO
42: Tumors of the Ear and Temporal Bone

Sangeeta Chakravorty, MD, Dip. ABSM

Assistant Professor, Pediatrics
University of Pittsburgh School of Medicine
Pittsburgh, PA
66: Pediatric Sleep Disorders

Kenny H. Chan, MD

Chairman, Department of Pediatric Otolaryngology
Children's Hospital Colorado
Professor of Otolaryngology
University of Colorado School of Medicine
Aurora, CO
7: Pediatric Otolaryngology: A Psychosocial Perspective

Kay W. Chang, MD

Associate Professor of Otolaryngology
Stanford University
Stanford, CA
69: Idiopathic Conditions of the Mouth and Pharynx

Judy L. Chen, MD

Clinician Educator
Pediatric Otolaryngology, Cochlear Implants, Head & Neck Surgery
NorthShore University Health System
Northbrook, IL
89: Congenital Laryngeal Anomalies

Terrell A. Clark, PhD

Director, Deaf and Hard of Hearing Program,
Department of Otolaryngology & Communication Enhancement and Senior Associate in Psychiatry
Associate Scientific Medical Staff
Boston Children's Hospital
Assistant Professor of Psychiatry,
Harvard Medical School
Boston, MA
119: Early Identification and Early Intervention for Hearing Loss

Aliza P. Cohen, MA

Division of Pediatric Otolaryngology–Head and Neck Surgery
Cincinnati Children's Hospital Medical Center
Cincinnati, OH
74: Pediatric Dysphagia
95: Airway Surgery: Open Approach
114: Hemangiomas and Vascular Malformations
117: Velopharyngeal Insufficiency

Michael S. Cohen, MD, FACS

Massachusetts Eye and Ear Hospital
Instructor of Otolaryngology
Harvard School of Medicine
Boston, MA
78: Trauma to the Mouth, Pharynx, and Esophagus in Children

Kathryn L. Colman, MD

Visiting Instructor
Division of Otolaryngology–Head and Neck Surgery
University of Utah School of Medicine
Pediatric Otolaryngologist
Primary Children's Hospital
University of Utah Health Care
Salt Lake City, UT
79: Caustic Injuries and Acquired Strictures of the Esophagus

George Conner, MD

Emeritus Professor of Surgery
Penn State University
State College, PA
69: Idiopathic Conditions of the Mouth and Pharynx

James D. Cooper, MD

Assistant Professor of Pediatrics
Division of Pediatric Hematology and Oncology
University of Pittsburgh School of Medicine
Children's Hospital of Pittsburgh of UPMC
Pittsburgh, PA
14: Pediatric Hematology: The Coagulation System and Associated Disorders

Bernard J. Costello, DMD, MD, FACS

Professor and Program Director
Chief, Pediatric Oral and Maxillofacial Surgery
Children's Hospital of Pittsburgh of UPMC
Pittsburgh, PA

*19: Pediatric Oral and Maxillofacial Surgery: Craniofacial
Growth and Interdisciplinary Surgical Care*

Marvin C. Culbertson III, MD

Staff Physician, Emergency Department
Connecticut Children's Medical Center
Hartford, CT

48: Epistaxis

Hisham M. Dahmouch, MBBCh, FRCR

Pediatric Radiology Fellow
Department of Radiology
Children's Hospital of Philadelphia
University of Pennsylvania
Philadelphia, PA

24: Methods of Examination: Radiologic Aspects

David H. Darrow, MD, DDS

Departments of Otolaryngology and Pediatrics
Eastern Virginia Medical School
Department of Otolaryngology
Children's Hospital of The King's Daughters
Norfolk, VA

65: Tonsillectomy and Adenoidectomy

97: Diagnosis and Management of Pediatric Laryngotracheal Trauma

Clare Dean, MD

New York Eye and Ear Infirmary
New York, NY

41: Injuries of the Ear and Temporal Bone

Frederic W.B. Deleyiannis, MD, MPhil, MPH, FACS

Chief, Department of Pediatric Plastic Surgery
Director, Cleft Lip and Palate Clinic
Director, Craniofacial Microsurgery & Trauma
Departments of Surgery and Otolaryngology
Children's Hospital Colorado
Professor, University of Colorado School of Medicine
Denver, Colorado

*63: Congenital Malformations of the Mouth and Pharynx:
Orofacial Clefts and Related Syndromes*

Michael A. DeMarcantonio, MD

Departments of Otolaryngology and Pediatrics
Eastern Virginia Medical School
Norfolk, VA

96: Foreign Bodies of the Larynx, Trachea, and Bronchi

Craig S. Derkay, MD, FAAP, FACS

Professor and Vice-Chairman
Department of Otolaryngology-Head & Neck Surgery
Eastern Virginia Medical School
Director, Pediatric Otolaryngology
Children's Hospital of the King's Daughters
Norfolk, VA

61: Physiology of the Mouth, Pharynx, and Esophagus

65: Tonsillectomy and Adenoidectomy

Christine A. Dollaghan, PhD

Professor, Child Language Development and Disorders
School of Behavioral and Brain Sciences
University of Texas at Dallas
Dallas, TX

*116: Disorders of Language, Phonology, Fluency, and Voice in
Children: Indicators for Referral*

Abigail L. Donovan, MD

Assistant Professor of Psychiatry, Harvard Medical School
Assistant Psychiatrist, Massachusetts General Hospital
Boston, MA

8: Psychiatric Disorders in Pediatric Otolaryngology

Brian P. Dunham, MD

Attending, The Children's Hospital of Philadelphia
Division of Otolaryngology
Assistant Professor, Otorhinolaryngology: Head and
Neck Surgery
University of Pennsylvania School of Medicine
Philadelphia, PA

90: Congenital Malformations of the Trachea and Bronchi

John D. Durrant, PhD

Professor Emeritus, Department of Communication Science &
Disorders
School of Health and Rehabilitation Sciences
University of Pittsburgh
Pittsburgh, PA

21: Physical and Physiologic Bases of Hearing

Natalie E. Edmondson, MD, FACS

Otolaryngology
UCLA Medical Center
Los Angeles, CA

55: Complications of Nasal and Sinus Infections

Garth D. Ehrlich, PhD

Professor of Microbiology and Immunology
Professor of Otolaryngology-Head and Neck Surgery
Executive Director, Center for Advanced Microbial
Processing (CAMP)
Institute of Molecular Medicine and Infectious Disease
Executive Director, Center for Genomic Sciences
Institute of Molecular Medicine and Infectious Disease
Executive Director, Genomics Core Facility
Clinical and Translational Research Institute
Drexel College of Medicine
Philadelphia, PA

16: The Role of Biofilms in Pediatric Otolaryngologic Diseases

Ravindhra G. Elluru, MD, PHD

Division of Pediatric Otolaryngology-Head and Neck Surgery
Cincinnati Children's Hospital Medical Center
Cincinnati, OH

114: Hemangiomas and Vascular Malformations

Todd E. Falcone, MD

Department of Otolaryngology
Boston University Medical Center
Boston, MA

106: Head and Neck Space Infections

Adel Fattah, BSc(hons), PhD, MB, BChir, FRCS(Plast)

Specialist Registrar in Plastic Surgery
The Craniofacial Unit
Great Ormond Street Hospital for Children
London, England

*111: Craniofacial Development and Congenital Anomaly:
A Contemporary Review of Processes and Pathogenesis*

Fred Fedok, MD, FACS

Professor and Chief Section of Otolaryngology
Department of Surgery
Pennsylvania State University College of Medicine
Hershey, PA

58: Injuries of the Nose, Facial Bones, and Paranasal Sinuses

Juan C. Fernandez-Miranda, MD

Assistant Professor of Neurological Surgery
Director, Surgical Neuroanatomy Lab
University of Pittsburgh School of Medicine
Pittsburgh, PA

115: Pediatric Skull Base Surgery

Lynne R. Ferrari, MD

Robert M. Smith Professor of Pediatric Anesthesiology
Harvard Medical School
Chief, Perioperative Anesthesia
Medical Director, Operating Rooms and Perioperative Programs
Boston Children's Hospital
Boston, MA

10: Pediatric Anesthesiology

Tamara Feygin, MD

Department of Radiology
Children's Hospital of Philadelphia
University of Pennsylvania
Philadelphia, PA

84: Radiologic Evaluation of the Pediatric Airway

Brian Fligor, ScD

Director of Diagnostic Audiology
Instructor of Otology and Laryngology
Department Audiology/Otolaryngology and Communication
Enhancement
Harvard Medical School
Boston, MA

*23: The Assessment of Hearing and Middle-Ear Function in
Children*

Sylvia A. Frazier-Bowers, DDS, PhD

Associate Professor
Department of Orthodontics
School of Dentistry
University of North Carolina at Chapel Hill
Chapel Hill, NC

68: Orthodontic Problems in Children

Patrick Froehlich, MD

Sainte-Justine Hospital
Service d'ORL
Montreal, Quebec
Canada

87: Aspiration: Etiology and Management

Carine Fuchsmann, MD

Department of ENT–Head and Neck Surgery
Hopital Edouard Heriot
Lyon, France

87: Aspiration: Etiology and Management

Joseph M. Furman, MD, PhD

Director, Division of Balance Disorders
UPMC Center for Hearing and Balance
Professor, Departments of Otolaryngology, Neurology,
Bioengineering and Physical Therapy
University of Pittsburgh School of Medicine
Pittsburgh, PA

25: Vestibular Evaluation

29: Balance Disorders

Eréa Noël Garabedian, MD

Armand Trousseau Children Hospital
Paris, France

92: Acquired Disorders of the Larynx and Trachea

Paul A. Gardner, MD

Associate Professor, Neurological Surgery
Co-Director, Center for Skull Base Surgery
Department of Neurological Surgery
University of Pittsburgh School of Medicine
Pittsburgh, PA

115: Pediatric Skull Base Surgery

Deborah A. Gentile, MD

Director of Research, Division of Allergy, Asthma
and Immunology
Allegheny General Hospital, Pittsburgh, PA
Associate Professor of Pediatrics
Drexel University School of Medicine
Philadelphia, PA

11: Allergy and Immunology

Mark E. Gerber, MD

Director, Pediatric Otolaryngology- Head/Neck Surgery
NorthShore University Health System
Clinical Associate Professor
The University of Chicago Pritzker School of Medicine
NorthShore University Health System
Northbrook, IL

89: Congenital Laryngeal Anomalies

Ari J. Goldsmith, MD

Pediatric Otolaryngology
Division of Otolaryngology/Ear, Nose and Throat
Maimonides Infants & Children's Hospital
Associate Professor, State University of New York (Downstate)
Brooklyn, New York

105: Cervical Adenopathy

Edward J. Goldson, MD

Professor, Department of Pediatrics
University of Colorado Medical School
Children's Hospital Colorado
Aurora, CO

7: Pediatric Otolaryngology: A Psychosocial Perspective

Amy C. Goldstein, MD

Assistant Professor of Pediatrics
University of Pittsburgh School of Medicine
Director, Neurogenetics and Metabolism
Children's Hospital of Pittsburgh of UPMC
Pittsburgh, PA

12: Pediatric Neurology

Nira A. Goldstein, MD

Associate Professor, Division of Pediatric Otolaryngology
State University of New York Downstate Medical Center
Brooklyn, NY

60: The Mouth, Pharynx, and Esophagus

Carlos Gonzalez, MD, FACS

Professor and Chairman, Otolaryngology Head and Neck Surgery

University of Puerto Rico School of Medicine
Chief of Surgery, San Jorge Children's Hospital
San Juan, Puerto Rico

73: Tumors of the Mouth and Pharynx

Alka Goyal, MD

Department of Gastroenterology
Children's Hospital of Pittsburgh of UPMC
Pittsburgh, PA

76: Eosinophilic Esophagitis

Lorelei J. Grunwaldt, MD

Director, Vascular Anomalies Center
Director, Brachial Plexus Clinic
Division of Pediatric Plastic Surgery
Children's Hospital of Pittsburgh of UPMC
Assistant Professor of Surgery
Children's Hospital of Pittsburgh of UPMC
Pittsburgh, PA

113: Pediatric Plastic Surgery of the Head and Neck

Joseph Haddad Jr., MD

Professor and Howard W. Smith Interim Chairman
Department of Otorhinolaryngology – Head/Neck Surgery
Columbia University Medical Center
Children's Hospital of New York
New York, NY

101: Methods of Examination of the Head and Neck

Steven D. Handler, MD, MBE

Professor of Otorhinolaryngology: Head and Neck Surgery
The Children's Hospital of Philadelphia
Philadelphia, PA

62: Methods of Examination of the Mouth, Pharynx, and Esophagus

Christopher J. Hartnick, MD, MSEpi

Professor of Otolaryngology and Laryngology
Harvard Medical School
Division Director, Pediatric Otolaryngology
Director, Pediatric Airway, Voice and Swallowing Center
Chief Quality Officer for Otolaryngology
Massachusetts Eye and Ear Infirmary
Boston, MA

4: Outcomes and Evidence-Based Medicine in Pediatric Otolaryngology

Michael S. Haupt, DO, MBA

Chief, Otolaryngology
Associate Clinical Professor, Wayne State University
Children's Hospital of Michigan
Detroit, MI

47: Nasal Obstruction and Rhinorrhea

Gerald B. Healy, MD, FACS, FRCS (Eng), FRCS (Ire)

Professor of Otolaryngology & Laryngology
Harvard Medical School
Emeritus Healy Chair in Otolaryngology
Boston Children's Hospital
Emeritus Surgeon-in-Chief
Boston Children's Hospital
Boston, MA

Past President, American College of Surgeons

45: Methods of Examination of the Nose, Paranasal Sinuses, Face, and Orbit

Michael S. Hildebrand, PhD

NHMRC CJ Martin Fellow, Epilepsy Research Center
Department of Medicine
University of Melbourne
Melbourne, Australia

30: Genetic Hearing Loss and Inner Ear Diseases

Keiko Hirose, MD

Associate Professor, Otolaryngology–Head and Neck Surgery
Division Director, Pediatric Otolaryngology
Washington University School of Medicine
St. Louis, MO

20: Embryology and Developmental Anatomy of the Ear

Barry E. Hirsch, MD, FACS

Professor, Departments of Otolaryngology, Neurologic Surgery, and Communication Science & Disorders
Director, Division of Otolaryngology & Neurotology
University of Pittsburgh School of Medicine
Pittsburgh, PA

36: Diseases of the External Ear

Jenő Hirschberg, MD, PhD, DSc

Professor, Division of Pediatric Otorhinolaryngology and Bronchology
Saint John's Hospital
Budapest, Hungary

86: Stridor: Presentation and Evaluation

Andrew J. Hotelling, MD

Chief, Section of Pediatric Otolaryngology
Professor, Departments of Pediatrics and Otolaryngology–Head and Neck Surgery
Loyola University Medical Center
Maywood, IL

75: Functional Abnormalities of the Esophagus

85: Cough

Anne F. Hseu, MD

Department of Otolaryngology
Cleveland Clinic Children's Hospital Head and Neck Institute
Cleveland, OH

28: Tinnitus in Children

Murad Husein, MD

Associate Professor and Undergraduate Director
Department of Otolaryngology–Head and Neck Surgery
London Health Sciences Centre–Victoria Hospital
London, Ontario, Canada

30: Genetic Hearing Loss and Inner Ear Diseases

Glenn Isaacson, MD, FACS, FAAP

Professor, Otolaryngology–Head and Neck Surgery
Assistant Professor, Pediatrics
Director, Pediatric Otolaryngology
Temple University School of Medicine
Philadelphia, PA

*81: Developmental Anatomy and Physiology of the Larynx,
Trachea, Esophagus, and Lungs*

James J. Jaber, MD, PhD

Assistant Professor, Department of Otolaryngology–Head &
Neck Surgery

Head and Neck Surgical Oncology
Loyola University Medical Center
Maywood, IL

85: Cough

Ian N. Jacobs, MD

Director, The Center for Pediatric Airway Disorders
The Children's Hospital of Philadelphia
Associate Professor, Otorhinolaryngology: Head and Neck Surgery
University of Pennsylvania School of Medicine
Philadelphia, PA

90: Congenital Malformations of the Trachea and Bronchi

Luv R. Javia, MD

Cochlear Implant Program
Center for Pediatric Airway Disorders, Children's Hospital of
Philadelphia
Assistant Professor of Clinical Otorhinolaryngology/Head & Neck
Surgery
University of Pennsylvania Perelman School of Medicine
Philadelphia, PA

90: Congenital Malformations of the Trachea and Bronchi

Ken Kazahaya, MD, MBA, FACS

Associate Director, Division of Pediatric Otolaryngology
Director, Pediatric Skull Base Surgery
Medical Director, Cochlear Implant Program
Co-Lead Surgeon, Pediatric Thyroid Center
Children's Hospital of Philadelphia
Associate Professor of Clinical Otolaryngology
Department of Otorhinolaryngology/Head & Neck Surgery
University of Pennsylvania Perelman School of Medicine
Philadelphia, PA

*46: Imaging of the Paranasal Sinuses in Pediatric Patients With
Special Considerations for Endoscopic Sinus Surgery*

Melanie A. Kazlas, MD

Director, Pediatric Ophthalmology & Strabismus Service
Massachusetts Eye and Ear Infirmary
Instructor, Harvard Medical School
Boston, MA

13: Pediatric Ophthalmology

Sarah E. Keesecker, MD

Columbia University Medical Center
New York, NY

101: Methods of Examination of the Head and Neck

Peggy E. Kelley, MD, FACS, FAAP

Associate Professor
University of Colorado at Denver Health Science Center
Department of Pediatric Otolaryngology
Children's Hospital Colorado
Aurora, CO

110: Injuries of the Neck

David T. Kent, MD

Resident, Department of Otolaryngology–Head & Neck Surgery
University of Pittsburgh Medical Center
Pittsburgh, PA

101: Methods of Examination of the Head and Neck

Ana H. Kim, MD

Associate Professor, New York Medical College
Director of Otolologic Research
Otolaryngology, Neurotology, Skull Base
New York Eye and Ear Infirmary
New York, NY

41: Injuries of the Ear and Temporal Bone

Karen Iler Kirk, PhD, CC-SLP, ASHA Fellow

Shahid and Ann Carlson Khan Professor
Head, Department of Speech and Hearing Science
University of Illinois Champaign-Urbana
Champaign, IL

33: Cochlear Implants in Children

Jerome O. Klein, MD

Professor of Pediatrics
Department Pediatric Infectious Disease
Boston University School of Medicine
Boston, MA

22: Methods of Clinical Examination: Ear and Related Structures

37: Otitis Media and Eustachian Tube Dysfunction

38: Complications and Sequelae of Otitis Media

Peter J. Koltai, MD, FACS, FAAP

Professor and Chief
Division of Pediatric Otolaryngology
Stanford University School of Medicine
Lucile Packard Children's Hospital
Stanford, CA

86: Stridor: Presentation and Evaluation

Maria Koutourousiou, MD

Clinical Instructor
Department of Neurosurgery
University of Pittsburgh School of Medicine
Pittsburgh, PA

115: Pediatric Skull Base Surgery

Nicolas Le Boulanger, MD

Pediatric Otolaryngology–Head and Neck Surgery Department
Armand Trousseau Children Hospital
Paris, France

92: Acquired Disorders of the Larynx and Trachea

Gi Soo Lee, MD, EdM

Clinical Instructor
Department of Otolaryngology
Harvard Medical School
Boston Children's Hospital
Boston, MA

45: Methods of Examination of the Nose, Paranasal Sinuses, Face, and Orbit

Greg Licameli, MD, MHCM

Associate in Otolaryngology
Director, Cochlear Implant Team
Boston Children's Hospital
Assistant Professor of Otolaryngology
Harvard Medical School
Boston, MA

26: Otalgia

Aaron C. Lin, MD

Assistant Professor
Division of Pediatric Otolaryngology
University of Southern California Keck School of Medicine
Children's Hospital of Los Angeles
Los Angeles, CA

86: Stridor: Presentation and Evaluation

Ingrid Loma-Miller, MD

Assistant Professor of Pediatrics
Eastern Virginia Medical Center
Pediatric Neurology
Children's Hospital of the King's Daughters
Norfolk, VA

80: Neurologic Disorders of the Mouth, Pharynx, and Esophagus

Joseph E. Losee, MD, FAAP, FACS

Professor of Surgery and Pediatrics
Chief, Pediatric Plastic Surgery
Director, Pittsburgh Cleft-Craniofacial Center
Program Director, Plastic Surgery Residency
Division of Pediatric Plastic Surgery
Children's Hospital of Pittsburgh of UPMC
Pittsburgh, PA

113: Pediatric Plastic Surgery of the Head and Neck

Rodney P. Lusk, MD, FACS

Director ENT Institute
Boys Town National Research Hospital
Omaha, NE

54: Surgical Management of Chronic Rhinosinusitis

103: Neck Masses

Andrew MacGinnitie, MD, PhD

Division of Immunology, Boston Children's Hospital
Department of Pediatrics
Harvard Medical School
Boston, MA

56: Allergic Rhinitis

John Maddalozzo, MD, FACS

Professor of Otolaryngology-Head and Neck Surgery
Children's Hospital of Chicago Research Center
Northwestern University Feinberg School of Medicine
Chicago, IL

109: Thyroid

David N. Madgy, DO

Chief of Otolaryngology
Children's Hospital of Michigan-Detroit
Associate Clinical Professor, Pediatrics
Wayne State University
Detroit, MI

47: Nasal Obstruction and Rhinorrhea

Anthony E. Magit, MD, MPH

Professor, Department of Surgery
University of California, San Diego
San Diego, CA

59: Tumors of the Nose, Paranasal Sinuses, and Nasopharynx

Scott C. Manning, MD

Division Chief, Otolaryngology Head and Neck Surgery
Program Director, Otolaryngology Education
Professor, Pediatric Otolaryngology Head and Neck Surgery
Seattle Children's Hospital
Seattle, Washington, DC

48: Epistaxis

77: Foreign Bodies of the Pharynx and Esophagus

Belinda A. Mantle, MD

Director, Pediatric Otolaryngology
Osborne Head and Neck Institute
Los Angeles, CA

49: Pediatric Headaches

Brian S. Martin, DMD, MS

Chief, Division of Pediatric Dentistry
Children's Hospital of Pittsburgh of UPMC
Clinical Assistant Professor
University of Pittsburgh School of Dental Medicine
Pittsburgh, PA

67: Dental and Gingival Disorders

Bruce J. Masek, PhD, ABPP

Clinical Director Emeritus, Outpatient Child and Adolescent Psychiatry
Massachusetts General Hospital
Associate Professor of Psychology (Psychiatry)
Harvard Medical School
Boston, MA

8: Psychiatric Disorders in Pediatric Otolaryngology

John G. Meara, MD, DMD, MBA

Plastic Surgeon-in-Chief
Department of Plastic and Oral Surgery
Boston Children's Hospital
Boston, MA

*111: Craniofacial Development and Congenital Anomaly:
A Contemporary Review of Processes and Pathogenesis*

Claire Kane Miller, PhD

Program Director, Division of Speech-Language Pathology
University of Cincinnati College of Medicine
Cincinnati, OH

74: Pediatric Dysphagia

Ron Mitchell, MD

Professor of Otolaryngology and Pediatrics
University of Texas Southwestern Medical Center
William Beckner Distinguished Chair in Otolaryngology
Children's Medical Center
Dallas, TX

65: Tonsillectomy and Adenoidectomy

Makoto Miura, MD, DMSc

Director, Department of Otolaryngology
Japanese Red Cross Society Wakayama Medical Center
Wakayama-city, Japan

34: Congenital Anomalies of the External and Middle Ears

Richard T. Miyamoto, MD

Arilla Spence DeVault Professor and Chairman
Department of Otolaryngology–Head and Neck Surgery
Indiana University School of Medicine
Indianapolis, IN

33: Cochlear Implants in Children

R. Christopher Miyamoto, MD, FACS, FAAP

Pediatric Otolaryngology
Peyton Manning Children's Hospital
Assistant Professor of Clinical Pediatrics and
Otolaryngology–Head & Neck Surgery
Indiana University School of Medicine
Indianapolis, IN

33: Cochlear Implants in Children

Carl W. Moeller, MD

Private Practice, Otorhinolaryngology
Hartford, CT

75: Functional Abnormalities of the Esophagus

Pamela Anne Mudd, MD

Pediatric Otolaryngology Fellow
University of Colorado Hospital
Denver, CO

42: Tumors of the Ear and Temporal Bone

Robert M. Naclerio, MD

Professor and Chief
Otolaryngology–Head and Neck Surgery
University of Chicago
Chicago, IL

44: Nasal Physiology

M. M. Nazif, DDS, MDS

Children's Hospital of Pittsburgh of UPMC
Pittsburgh, PA

67: Dental and Gingival Disorders

Marilyn W. Neault, PhD, PASC, CISC

Director, Habilitative Audiology Program
Boston Children's Hospital
Assistant Professor of Otology and Laryngology
Harvard Medical School
Boston, MA

*122: Auditory Access to Language Resulting from Cochlear
Implant Technology*

Roger C. Nuss, MD, FACS

Assistant Professor, Department of Otology & Laryngology
Harvard Medical School
Director, Pediatric Voice & Airway Disorders
Boston Children's Hospital
Boston, MA

118: Pediatric Voice Disorders: Evaluation and Treatment

Laurie A. Ohlms, MD

Boston Children's Hospital
Department of Otolaryngology
Boston, MA

5: Ethical Issues in Pediatric Otolaryngology

Samuel T. Ostrower, MD, FAAP

Medical Director
Department of Pediatric Otolaryngology–Head & Neck Surgery
Joe DiMaggio Children's Hospital, Hollywood, Florida
Affiliate Assistant Professor
Florida Atlantic University Charles E. Schmidt College
of Medicine
Boca Raton, Florida

*94: Pediatric Airway Stenosis: Minimally
Invasive Approaches*

Nathan Page, MD

Arizona Otolaryngology Consultants
Phoenix, AZ

20: Embryology and Developmental Anatomy of the Ear

Michael Painter, MD, ABPN

Professor of Neurology and Pediatrics
University of Pittsburgh School of Medicine
Director of Neurodevelopment Disabilities Program
Division of Neurology
Children's Hospital of Pittsburgh of UPMC
Pittsburgh, PA

*80: Neurologic Disorders of the Mouth, Pharynx,
and Esophagus*

Harshita Pant, BMBS, PhD

Departments of Otolaryngology and Medicine
The University of Adelaide
Adelaide, Australia

115: Pediatric Skull Base Surgery

Sanjay R. Parikh, MD, FAAP, FACS

Medical Director, Surgical Specialties
Bellevue Clinic and Surgery Center
Seattle Children's Hospital
Associate Professor
Department of Otolaryngology–Head and Neck Surgery
University of Washington
Seattle, Washington

55: Complications of Nasal and Sinus Infections

Simon C. Parisier, MD

Professor Emeritus, Department of Otolaryngology
New York Eye and Ear Infirmary
New York, NY

41: Injuries of the Ear and Temporal Bone

Desiderio Passali, MD

Chair of Ear, Nose and Throat
University of Siena
Siena, Italy

57: Foreign Bodies of the Nose

Naishadh Patil, FRCS

ENT Consultant/Honorary Senior Lecturer
Sligo General Hospital
Sligo, Ireland

64: Inflammatory Disease of the Mouth and Pharynx

Susan E. Pearson, MD, FAAP, FACS

Pediatric Otolaryngology Consultant, Mayo Clinic Health System
Clinical Assistant Professor
University of Minnesota School of Medicine
Mankato, MN

97: Diagnosis and Management of Pediatric Laryngotracheal Trauma

Stephen I. Pelton, MD

Professor of Pediatrics and Epidemiology
Director, Section of Pediatric Infectious Disease
Boston University School of Medicine
Boston, MA

15: Antimicrobial Agents for the Treatment of Pediatric Head and Neck Infections

Kalliopi Petropoulou, MD

Assistant Professor
Diagnostic Radiology and Neuroradiology
University of Pittsburgh
Pittsburgh, PA

102: Imaging of Pediatric Neck Masses

Erin M. Picou, PhD

Associate Professor and Director of Graduate Studies
Department of Speech and Hearing Sciences
Vanderbilt University Medical Center
Nashville, TN

120: Amplification Selection for Children With Hearing Impairment

Carlos D. Pinheiro-Neto, MD, PhD

Department of Otolaryngology
Albany Medical Center
Assistant Professor of Surgery, Albany Medical College
Albany, NY

115: Pediatric Skull Base Surgery

Avrum N. Pollock, MD, FRCPC

Pediatric Neuroradiologist and Pediatric Radiologist
The Children's Hospital of Philadelphia
Associate Professor of Clinical Radiology
Perelman School of Medicine University of Pennsylvania
Philadelphia, PA

24: Methods of Examination: Radiologic Aspects

84: Radiologic Evaluation of the Pediatric Airway

J. Christopher Post, MD, PhD, FACS

President and Chief Scientific Officer
Allegheny-Singer Research Institute
Medical Director, Center for Genomic Sciences
Director Pediatric Otolaryngology
Allegheny General Hospital
Pittsburgh, PA

Professor of Otolaryngology and Microbiology at Drexel College of Medicine and Temple University School of Medicine
Philadelphia, PA

16: The Role of Biofilms in Pediatric Otolaryngologic Diseases

William P. Potsic, MD, MMM

Emeritus Professor CE of Otorhinolaryngology: Head and Neck Surgery

Attending Otolaryngologist and Vice Chairman for Clinical Affairs, Department of Surgery
Senior Surgeon, Division of Otolaryngology
The Children's Hospital of Philadelphia
Philadelphia, PA

62: Methods of Examination of the Mouth, Pharynx, and Esophagus

Jeremy D. Prager, MD, FACS

Co-Director, Aero-digestive Program
Department of Pediatric Otolaryngology
Children's Hospital Colorado
Assistant Professor, Colorado University School of Medicine
Aurora, CO

117: Velopharyngeal Insufficiency

Seth M. Pransky, MD

Director, Pediatric Otolaryngology
Rady Children's Specialist Medical Foundation
Clinical Professor of Surgery
Division of Otolaryngology, University of California School of Medicine
San Diego, CA

98: Tumors of the Larynx, Trachea, and Bronchi

Sheila Pratt, PhD

Department of Communication Science & Disorders
University of Pittsburgh
Geriatric Research and Education Clinical Center
VA Pittsburgh Healthcare System
Pittsburgh, PA

121: Behavioral Intervention and Education of Children With Hearing Loss

Diego Preciado, MD, PhD

Associate Professor
Departments of Pediatrics and Surgery
George Washington
University School of Medicine and Health Sciences
Children's National Medical Center
Center for Genetic Medicine Research (CGMR)
Washington, DC

40: Diseases of the Labyrinthine Capsule

Evan J. Propst, MD, MSc, FRCSC

Assistant Professor
Department of Otolaryngology–Head and Neck Surgery
University of Toronto and Hospital for Sick Children
Toronto, Ontario, Canada
95: Airway Surgery: Open Approach

Philip E. Putnam, MD, FAAP

Professor of Pediatrics
Division of Gastroenterology, Hepatology, and Nutrition
Cincinnati Children's Hospital Medical Center
University of Cincinnati College of Medicine
Cincinnati, OH
17: Pediatric Gastroenterology

Jeff C. Rastatter, MD

Assistant Professor in Otolaryngology–Head & Neck Surgery
Children's Memorial Hospital
Northwestern University Feinberg School of Medicine
Ann & Robert H. Lurie Children's Hospital of Chicago
Chicago, IL
109: Thyroid

Mark A. Richardson, MD, FACS

Department of Otolaryngology
Oregon Health & Science School of Medicine
Portland, OR
100: The Neck: Embryology and Anatomy

Todd A. Ricketts, PhD

Associate Professor and Director of Graduate Studies
Department of Speech and Hearing Sciences
Vanderbilt University Medical Center
Nashville, TN
120: Amplification Selection for Children With Hearing Impairment

Frank L. Rimell, MD

Associate Professor, Pediatric Otolaryngology
University of Minnesota
Pediatric Otolaryngologist
Children's Hospital and Clinics of Minnesota
Minneapolis, MN
97: Diagnosis and Management of Pediatric Laryngotracheal Trauma

A. Kim Ritchey, MD

Vice Chairman for Clinical Affairs and Professor
Department of Pediatrics
Division of Hematology/Oncology
University of Pittsburgh School of Medicine
Pittsburgh, PA
14: Pediatric Hematology: The Coagulation System and Associated Disorders

David W. Roberson, MD, FACS

Associate Professor of Otolaryngology and Laryngology
Harvard Medical School
Boston Children's Hospital
Boston, MA
106: Head and Neck Space Infections

Michael Rontal, MD

Otolaryngologist
Rontal-Akervall Clinic
Farmington Hills, Michigan
43: Embryology and Anatomy of the Paranasal Sinuses

Paul Rosen, MD

Division of Pediatric Rheumatology, Department of Pediatrics
Nemours/Alfred I. duPont Hospital for Children
Wilmington, DE
70: Oral Cavity and Oropharyngeal Manifestations of Systemic Disease

Richard M. Rosenfeld, MD, MPH

Professor and Chairman of Otolaryngology
State University of New York (Downstate)
Brooklyn, NY
105: Cervical Adenopathy

Robert J. Ruben, MD, FAAP, FACS

Distinguished University Professor
Departments of Otorhinolaryngology–Head and Neck Surgery and Pediatrics
Albert Einstein College of Medicine
Montefiore Medical Center
New York, NY
1: Evolution of Pediatric Otolaryngology

Ramon L. Ruiz, DMD, MD

Director, Craniofacial and Pediatric Oral and Maxillofacial Surgery
Arnold Palmer Children's Hospital
Orlando, FL
19: Pediatric Oral and Maxillofacial Surgery: Craniofacial Growth and Interdisciplinary Surgical Care

John Russell, MCh Surgery, FRCSI, FRCS (ORL)

Pediatric Otolaryngology
Our Lady's Children Hospital, Crumlin
Dublin, Ireland
64: Inflammatory Disease of the Mouth and Pharynx

Michael J. Rutter, MD

Pediatric Otolaryngologist and Director of Clinical Research
Cincinnati Children's Hospital Medical Center
Professor, Department of Pediatrics
Professor, Otolaryngology–Head and Neck Surgery
University of Cincinnati College of Medicine
Cincinnati, OH
95: Airway Surgery: Open Approach

Asli Sahin-Yilmaz, MD

Associate Professor, Otolaryngology Clinic
Umraniye Education and Research Hospital
Istanbul, Turkey
44: Nasal Physiology

Isamu Sando, MD, DMSc

Emeritus Professor, Department of Otolaryngology
University of Pittsburgh
Pittsburgh, PA
34: Congenital Anomalies of the External and Middle Ears