SATALOFF'S COMPREHENSIVE
TEXTBOOK OF OTOLARYNGOLOGY
HEAD AND NECK SURGERY

Series Editor: **Robert T Sataloff** MD DMA FACS

FACIAL PLASTIC AND RECONSTRUCTIVE SURGERY

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Vol. 3

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Sataloff's Comprehensive Textbook of Otolaryngology: Head and Neck Surgery: Facial Plastic and Reconstructive Surgery (Vol. 3)

First Edition: **2016**

ISBN: 978-93-5152-459-5

Printed at

Dedicated to

Matthew, James and Anthony Sclafani, who have not only tolerated but encouraged me in this endeavor, deserve special thanks. Without Peggy Hanrahan, who has given me more love and support than anyone could ever ask, my journey through medicine, otolaryngology, facial plastic surgery and life would not have been possible. It is to these wonderful people that I dedicate this volume.

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Foreword

Sataloff's Comprehensive Textbook of Otolaryngology: Head and Neck Surgery is a component of the most extensive compilation of information in otolaryngology—head and neck surgery to date. The six volumes of the comprehensive textbook are part of a 12-volume, encyclopedic compendium that also includes a six-volume set of detailed, extensively illustrated atlases of otolaryngologic surgical techniques. The vision for the *Comprehensive Textbook* was realized with the invaluable, expert collaboration of eight world-class volume editors. Chapter authors include many of the most prominent otolaryngologists in the world, and coverage of each subspecialty is extensive, detailed and scholarly.

Anil K Lalwani, MD edited the volume on otology/neurotology/skull base surgery. Like all six of the volumes in the *Comprehensive Textbook*, the otology/neurotology/skull base surgery volume is designed not only as part of the multivolume book, but also to stand alone or in combination with the atlas of otological surgery. Dr Lalwani's volume covers anatomy and physiology of hearing and balance, temporal bone radiology, medical and surgical treatment of common and rare disorders of the ear and related structures, occupational hearing loss, aural rehabilitation, cochlear and brainstem implantation, disorders of the facial nerve, and other topics. Each chapter is not only replete with the latest scientific information, but also accessible and practical for clinicians.

The rhinology/allergy and immunology volume by Marvin P Fried and Abtin Tabaee is the most elegant and inclusive book on the topic to date. Drs Fried and Tabaee start with a history of rhinology beginning in ancient times. The chapters on evolution of the nose and sinuses, embryology, sinonasal anatomy and physiology, and rhinological assessment are exceptional. The volume includes discussions of virtually all sinonasal disorders and allergy, including not only traditional medical and surgical therapy but also complementary and integrative medicine. The information is state-of-the-art.

Anthony P Sclafani's volume on facial plastic and reconstructive surgery is unique in its thoroughness and practicality. The volume covers skin anatomy and physiology, principles of wound healing, physiology of grafts and flaps, lasers in facial plastic surgery, aesthetic analysis of the face and other basic topics. There are extensive discussions on essentially all problems and procedures in facial plastic and reconstructive surgery contributed by many of the most respected experts in the field. The volume includes not only cosmetic and reconstructive surgery, but also information on diagnosis and treatment of facial trauma.

The volume on laryngology edited by Dr Michael S Benninger incorporates the most current information on virtually every aspect of laryngology. The authors constitute a who's who of world experts in voice and swallowing. After extensive and practical discussions of science and genetics, the volume reviews diagnosis and treatment (traditional and complementary) of laryngological disorders. Chapters on laser physics and use, voice therapy, laryngeal dystonia, cough, vocal aging and many other topics provide invaluable "pearls" for clinicians. The volume also includes extensive discussion of surgery for airway disorders, office-based laryngeal surgery, laryngeal transplantation and other topics.

For the volume on head and neck surgery, Drs Patrick J Gullane and David P Goldstein have recruited an extraordinary group of contributors who have compiled the latest information on molecular biology of head and neck cancer, principles of radiation, immunobiology, medical oncology, common and rare head and neck malignancies, endocrine neoplasms, lymphoma, deep neck space infections and other maladies. The surgical discussions are thorough and richly illustrated, and they include definitive discussions of free flap surgery, facial transplantation and other subjects.

Dr Christopher J Hartnick's vision for the volume on pediatric otolaryngology was expansive, elegantly scholarly and invaluable clinically. The volume begins with information on embryology, anatomy, genetics, syndromes and other complex topics. Dr Hartnick's contributors include basic discussions of otolaryngologic examination in a pediatric patient, imaging, hearing screening and aural rehabilitation, and diagnosis and treatment of diseases of the ear, nose, larynx, oral cavity, neck and airway. Congenital, syndromic and acquired disorders are covered in detail, as are special, particularly vexing problems such as chronic cough in pediatric patients, breathing and obstructive sleep apnea in children, pediatric voice disorders, and many other subjects. This volume will be invaluable to any otolaryngologist who treats children.

All of us who have been involved with the creation of the six-volume *Sataloff's Comprehensive Textbook of Otolaryngology: Head and Neck Surgery* and its companion six-volume set of surgical atlases hope and believe that our colleagues will find this new offering to be not only the most extensive and convenient compilation of information in our field, but also the most clinically practical and up-to-date resource in otolaryngology. We are indebted to Mr Jitendar P Vij (Group Chairman) and Mr Ankit Vij (Group President) of M/s Jaypee Brothers Medical Publishers (P) Ltd., New Delhi, India, for their commitment to this project, and for their promise to keep this work available not only online but also in print. We are indebted also to the many otolaryngologists who have contributed to this work not only by editing volumes and writing chapters, but also by asking questions that inspired many of us to seek the answers found on these pages. We also thank especially the great academic otolaryngologists who trained us and inspired us to spend our nights, weekends and vacations writing chapters and books. We hope that our colleagues and their patients find this book useful.

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Preface

Facial Plastic and Reconstructive Surgery is, depending upon one's point of view, either a distinct subspecialty or an integral part of otolaryngology. Techniques of soft tissue and bone repair, central to all aspects of otolaryngology, are of paramount concern in facial plastic surgery. As much as any other part of otolaryngology, facial plastic and reconstructive surgery relates intimately with all other subspecialties of the field. Reconstruction after removal of cancer or facial trauma, correction of congenital defects of the ears, nose, lips and palate, and many rhinoplasty procedures improve the function of facial structures. The sound understanding of head and neck anatomy and physiology is at the core of a successful facial plastic surgeon. Knowledge, techniques and approaches in facial plastic surgery are essential to anyone practicing otolaryngology—head and neck surgery.

This volume of *Sataloff's Comprehensive Textbook of Otolaryngology: Head and Neck Surgery* covers the breadth of facial plastic surgery. Basic principles, anatomy, physiology, and reconstructive and cosmetic topics in facial plastic surgery are well-illustrated and covered in detail. This volume, like the rest of this work, serves the needs of the most junior resident as well as the most seasoned surgeon. It is hoped that the reader will fully appreciate not only the techniques of facial plastic and reconstructive surgery, but also its significance within otolaryngology.

Anthony P Sclafani MD FACS

Acknowledgments

The editor would like to thank Joseph Rusko, Marco Ulloa, Carol Rogers Field, Bridget Meyer, Tom Gibbons and the rest of the Jaypee Brothers team. Without their perseverance and hard work, this volume would not have been possible. Special thanks are offered to the authors, who have shared their expertise and experience in order to improve the care of the Facial Plastic and Reconstructive Surgery patient.

I would also like to thank Mr Jitendar P Vij (Group Chairman), Mr Ankit Vij (Group President), Ms Chetna Malhotra Vohra (Associate Director), Mr Umar Rashid (Development Editor) and Production team of Jaypee Brothers Medical Publishers (P) Ltd., New Delhi, India.

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