



# PEDIATRIC SURGERY

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Notice

Every effort has been made by the editors, the authors, and the publisher of this work to ensure that the procedures and treatment protocols presented herein were in accord with established practice at the time of publication. It should be noted, however, that procedures and treatment are subject to change and modification. In every case the reader is advised to check the latest publications on a given topic and to review recent drug product information to assure that changes have not been made, particularly in the recommended dosage of a drug or in contraindications for its administration.

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# Preface to the First Edition

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Pediatric surgery today is one of the most vigorously growing fields in surgery. The establishment of chairs, divisions, and departments of pediatric surgery in university centers attests to an increasing awareness of the special problems in this field. Several societies have been founded to promote knowledge in this area, and special sections exist in others. Two journals are devoted entirely to pediatric surgery, a third has a special department and others publish special issues concerned with its problems.

In June of 1959, an editorial board was formed to enroll the services of recognized authorities in writing a complete textbook of pediatric surgery that would reflect the best thoughts of men from representative institutions, covering a wide geographic area in the United States, Canada and England. As in any branch of surgery, during a period of rapid development and experimentation, much of the material is new, and much of it is as yet unpublished elsewhere in any form.

Our colleagues in many countries are contributing importantly to the growth of pediatric surgical knowledge. They will find repeated references to their published material. We regret that we could not enlist the services of many worthwhile contributors from Australia, Scandinavia and Continental Europe.

This project was conceived to meet the need for a comprehensive work on pediatric surgery presented from as broad a point of view as possible. There was agreement that all aspects of pediatric surgery would be covered, although, in order to limit the work to a reasonable size, it was necessary to restrict the space allotted to such specialty fields as ophthalmology, otolaryngology, orthopedics, and neurosurgery. The heaviest concentration is in the traditional fields of general, thoracic, and urologic surgery.

Particular emphasis has been laid on appropriate treatment of the physiologic, anatomic and embryologic aspects of specific surgical problems. Because we feel that the current state of knowledge is best understood in the light of its development, we have prefaced many subjects with an historical résumé.

Contributors have been urged to express their own feelings clearly on controversial points, to draw particularly on their own experience and, in addition, to evaluate and comment upon the work of others. To this end, we have encouraged extensive bibliographic lists, with annotations in the text. Particular attention has been paid to the illustrations and the publishers have been generous concerning the number included.

Our contributors have been cooperative, prompt, and patient with our editorial suggestions, and we are grateful to them. Some duplication of coverage will necessarily occur in a multiauthor textbook, and we think this not undesirable. Differences of opinion are expressed in some areas, and such differences will be found to exist. In details of treatment, and in other matters, in a variety of aspects of pediatric surgery, the editors do not hold uniform opinions—nor do the contributors. It was felt im-

portant only that an individual contribution present a valid and supportable point of view and a satisfactory method of treatment.

It is hoped that the various sections are developed in a manner systematic enough to make them useful to the student or house officer interested in the field of pediatric surgery, that the presentations are broad enough and sufficiently free from surgical minutiae to be useful to the pediatrician and yet detailed enough to convey to the informed general surgeon each author's assessment of current knowledge in his field and his own recommendations.

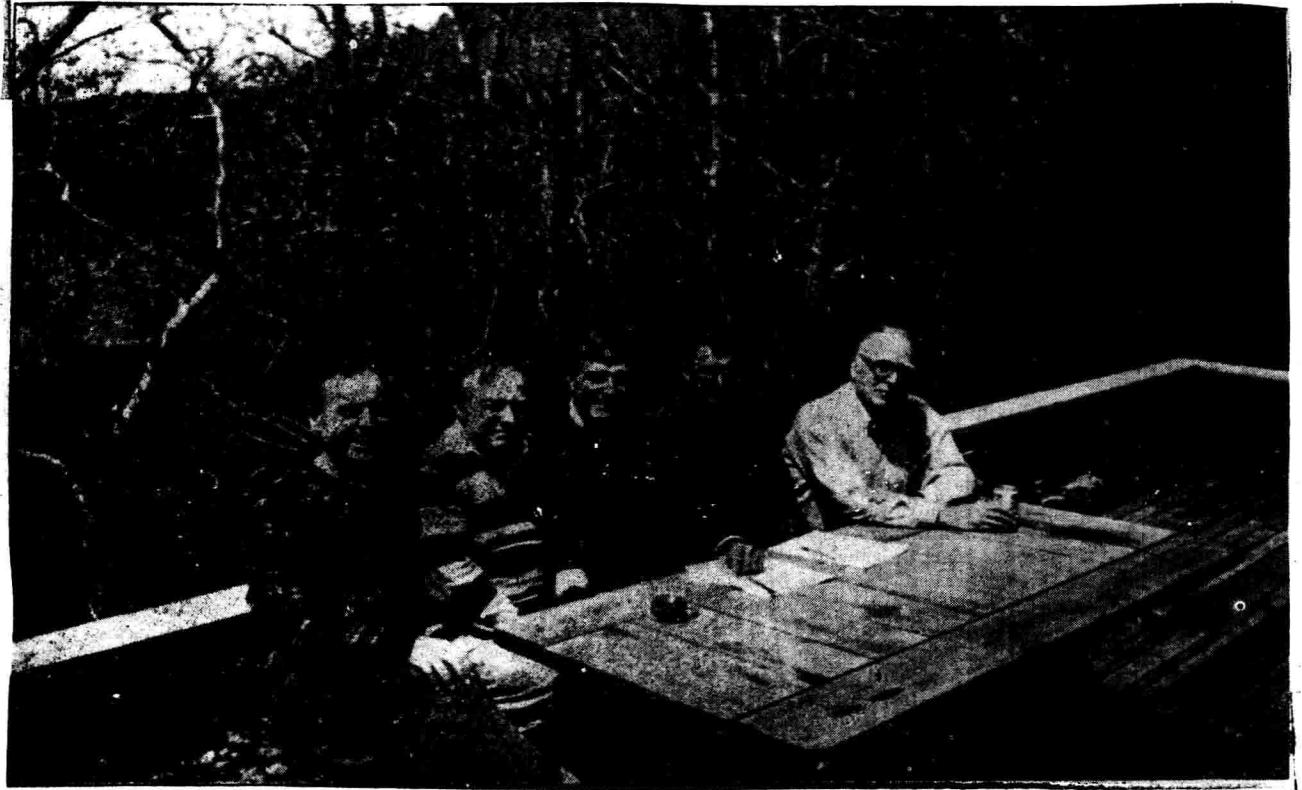
We have felt strongly that the value of this presentation would be increased in direct proportion to the brevity of time between the preparation of the manuscript and publication. In a multiauthor work, a good deal of time is necessarily expended in the transmission of manuscripts from authors to editors, in circulation among editors, and resubmission to authors for consideration of joint editorial suggestions. Six months were spent by the editorial board in organizing the form of the work, the division of subject matter, the matter of presentation, the division of editorial responsibilities and the assignment of subjects to the editors and contributors. The actual writing, editing, and publication have been accomplished in less than two years.

The editorial board has functioned in a coordinated effort. While the editors were individually responsible for given Parts, each contributed Sections to Parts for which others were editorially responsible. Every chapter has been reviewed by several members of the board. The distribution of a model chapter, prepared by Doctor Mustard, greatly simplified the problem of achieving uniformity. Doctor Welch served as chairman of the board and was editorially responsible for PART I: *General*, PART II: *Head and Neck*, and PART V: *Genitourinary System*. Doctors Mustard and Ravitch were responsible for PART III: *The Thorax*, Doctor Mustard for PART VI: *Integument and Musculoskeletal System*, and Doctor Ravitch for PART VII: *Nervous System*. Doctors Benson and Snyder prepared PART IV: *Abdomen*. The selection of contributors was a joint editorial effort. Mrs. Muriel McL. Miller was responsible for the uniform pen and ink illustration concept.

We wish to acknowledge our gratitude to our secretaries, Mrs. Ralph Conjour, Miss June Gerkens, Mrs. Grace Crabbe, Mrs. Josephine Dyer, and Miss Linda Morse, for their tolerance and patience, and their willingness to type and retype manuscripts at a rapid pace and make early publication a reality.

We are grateful also to the staff of Year Book Medical Publishers for their enthusiasm and cooperation. The many meetings of the editorial board have been made possible through their generous support.

THE EDITORS



**The Editors** (*from left to right*): James A. O'Neill, Jr., Kenneth J. Welch,  
Judson G. Randolph, Marc I. Rowe, and Mark M. Ravitch.

# Preface to the Fourth Edition

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This edition sees publication a quarter century after the appearance of the first.

With changes in organization and content and the roster of contributors, this edition is in many respects a new book. There are 33 new chapters representing either the presentation of new subjects (or phases of new subjects), or elevation of the status of a brief treatment offered previously. Discussions of the major malignant neoplasms of childhood have been collected in Part III rather than appearing in the various organ- or system-related sections of the book. Transplantation was considered to deserve its own section (Part IV) and an allocation of space that recognized the increasing importance of this exciting area.

Among the 33 new chapters and the subjects accorded expanded treatment are those on teratology, prenatal diagnosis, respiratory support, the immunocompromised child, newer imaging technologies, retinoblastoma, superior vena cava syndrome, esophageal rupture and perforation, gastrostomy, necrotizing enterocolitis, primary peritonitis, ileostomy and colostomy, non-Hodgkin's lymphoma, and six chapters on transplantation.

The increasing scope and complexity of what might be called general pediatric surgery led to the reluctant appreciation that not as much space could be devoted to the special fields as in previous editions. Most notably this has led to a sharp contraction and reorientation of the section that was devoted to cardiac surgery. That section, superbly organized and largely written by Dr. Mustard in the first two editions and brilliantly carried on by Dr. Aberdeen in the third, was in its own right a textbook of pediatric cardiac surgery. The sections on orthopedics and neurosurgery have also been reoriented.

Dr. Aberdeen has retired from the editorial board, as has Dr. Clifford Benson, one of the original editors, and a stalwart editor and contributor to the first three editions. We were delighted that he consented to contribute, once more, the chapter on pyloric stenosis. Drs. O'Neill and Rowe fill the places in the edi-

torial board left by the retirement from it of Drs. Aberdeen and Benson.

The roster of 149 contributors includes 83 new names, recognizing the emergence of new authorities, new possessors of special knowledge. The contributors have been patient and cooperative in responding to the requirements of the book and we are grateful to them.

In the matter of editorial assignment to the various parts, Dr. Rowe took responsibility for PART I—*General*, PART IV—*Transplantation*, and PART IX—*Special Areas of Pediatric Surgery*; Dr. O'Neill, PART II—*Trauma*, and with Dr. Ravitch, PART VII—*The Abdomen*; Dr. Randolph, PART III—*Principal Malignant Tumors*, and with Dr. Ravitch, PART VI—*The Thorax*; Dr. Ravitch, PARTS VI and VII as noted, and PART X—*Skin, Soft Tissues, and Blood Vessels*; and Dr. Welch, PART V—*Head and Neck*, and PART VIII—*The Genitourinary System*.

Dr. Welch served as chairman of the board and Dr. Ravitch functioned as the "final common pathway" for all manuscripts and galley proofs. Our secretaries—Ruth Jacobson, Suzanne Danais, Katie Moran, Elizabeth Smith, and Norma Hackwelder—have been patient, tolerant, hardworking, and resourceful in typing and retyping manuscripts, tracking and routing contributions with persistence and good humor.

The informal portrait of the editors was taken in the final editorial work session, during a lunch break at which we discussed our hopes for the Fourth Edition and our desire that it prove helpful to pediatric surgeons and surgical residents the world over.

Once more Year Book Medical Publishers has been unstintingly cooperative and efficient and strongly endorsed and supported our efforts to make this essentially new book as complete, authoritative, and handsomely produced as the three preceding editions.

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# Color Plates

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## VOLUME 1

### **Plate I (following page 402)**

Hodgkin's Lymphoma  
Toxic Nodular Goiter  
Massive Cervical Cystic Hygroma  
Mixed Intracapsular Hemangioma/Lymphangioma  
Mixed Vascular Malformation  
Thyroglossal Cyst

### **Plate II (following page 558)**

Congenital Cystic Disease—Left Lower Lobe  
Congenital Cystic Disease—Right Lower Lobe  
Poland Syndrome  
Pectus Carinatum, Atypical  
Pectus Excavatum, Extreme Form  
Ectopia Cordis

## VOLUME 2

### **Plates III and IV (following page 730)**

Omphalocele  
Gastroschisis  
Patent Omphalomesenteric Duct  
Necrotizing Enterocolitis

Non-Hodgkin's Lymphoma of Small Bowel

Intussusception

Chylous Cyst of the Mesentery

Multiple Jejunal Atresias

Hirschsprung's Disease

Hirschsprung's Disease

Intestinal Duplication

Granulomatous Ileitis

### **Plate V (following page 1126)**

Newborn Boy With Abdominal Muscular Deficiency Syndrome  
Splenogonadal Fusion  
Hydronephrosis (Ureteropelvic Obstruction)  
Unilateral Multicystic Dysplastic Kidney With Proximal Urentral Atresia  
Extrophy of the Urinary Bladder  
Hydrocolpos in Newborn

### **Plate VI (following page 1178)**

Port-Wine Stain  
Complicated Syndactylism  
Wringer Injury  
Hemangioma  
Congenital Lymphedema  
Giant, Hairy Pigmented Nevi

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