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EXTRINSIC OBSTRUCTION OF THE URETER

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PERINATAL UROLOGY
ANOMALIES OF THE URETER

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NEOPLASMS OF THE TESTIS

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AUGMENTATION CYSTOPLASTY

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URINARY INCONTINENCE: PATHOPHYSIOLOGY, EVALUATION, TREATMENT OVERVIEW, AND NONSURGICAL MANAGEMENT

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RENAL DISEASE IN CHILDHOOD

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GENITOURINARY TRAUMA

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SURGERY OF THE SEMINAL VESICLES

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RADICAL PROSTATECTOMY

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INFECTIONS OF THE URINARY TRACT

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TUMORS OF THE PENIS

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PHYSIOLOGY OF MALE REPRODUCTION: THE TESTIS, EPIDIDYMISS, AND DUCTUS DEFERENS

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SURGERY OF THE PENIS AND URETHRA

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ANOMALIES OF THE URETER

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ETIOLOGY, PATHOGENESIS, AND MANAGEMENT OF RENAL FAILURE

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ENDOCRINE TREATMENT OF PROSTATE CANCER

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URINARY TRACT INFECTIONS IN INFANTS AND CHILDREN

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MALE INFERTILITY

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SURGERY OF TESTICULAR NEOPLASMS

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PARASITIC DISEASES OF THE GENITOURINARY SYSTEM

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SURGERY OF THE URETER

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PRINCIPLES OF CONTINENT RECONSTRUCTION

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RENOVASCULAR HYPERTENSION AND OTHER RENAL VASCULAR DISEASES
SHOCK-WAVE LITHOTRIPSY

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PHYSIOLOGY AND PHARMACOLOGY OF THE BLADDER AND URETHRA

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VAGINAL RECONSTRUCTIVE SURGERY FOR INCONTINENCE AND PROLAPSE

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SURGERY OF THE KIDNEY

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TRANSPLANTATION IMMUNOBIOLOGY

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PHYSIOLOGY OF HYPOTHALAMIC-PITUITARY FUNCTION

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SURGERY FOR CERVICOVAGINAL AND URETHROVAGINAL FISTULA AND URETHRAL DIVERTICULUM

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RENOVASCULAR HYPERTENSION AND OTHER RENAL VASCULAR DISEASES
THE ADRENALS

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PARASITIC DISEASES OF THE GENITOURINARY SYSTEM

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THE NATURAL HISTORY OF LOCALIZED PROSTATE CANCER: A GUIDE TO THERAPY
ANATOMIC RADICAL RETROPUBIC PROSTATECTOMY

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PHYSIOLOGY OF HYPOTHALAMIC-PITUITARY FUNCTION

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THE NEUROUROLOGIC EVALUATION
RETROPUBIC SUSPENSION SURGERY FOR
FEMALE SPHINCTERIC INCONTINENCE

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COLOR ATLAS OF GENITAL DERMATOLOGY
PATHOPHYSIOLOGY AND CHARACTERIZATION
OF VOIDING DYSFUNCTION
NEUROMUSCULAR DYSFUNCTION OF THE
LOWER URINARY TRACT AND ITS
TREATMENT

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PHYSIOLOGY AND PHARMACOLOGY OF THE
RENAL PELVIS AND URETER

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PRUNE-BELLY SYNDROME

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GERIATRIC INCONTINENCE AND VOIDING
DYSFUNCTION

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ETIOLOGY, PATHOGENESIS, AND MANAGEMENT
OF RENAL FAILURE

PREFACE

Seventh Edition of Campbell's Urology

The seventh edition of *Campbell's Urology* perpetuates over 70 years of association between the W.B. Saunders Company and the field of urology. In 1926, the classic textbook by Hugh Hampton Young, *Young's Practice of Urology* was first published. This was followed in 1935 by Frank Hinman Sr.'s *Textbook of Urology*. The first edition of *Campbell's Urology*, which was published in 1954, was edited by Meredith Campbell, Professor and Chairman of Urology at New York University. After his first and second editions he invited J. Hartwell Harrison to join him as a co-editor of the third edition. When Dr. Harrison expanded the editorial board for the fourth edition, the editors believed that Dr. Campbell's contribution to urology should be recognized in perpetuity by officially naming the textbook in his honor. This tradition continues today with the publication of the seventh edition.

With the field of urology undergoing rapid transformation, the editors believed that a major complete revision of *Campbell's Urology* was necessary within 5 years of publishing the last edition. This edition has been greatly expanded with the addition of 22 new chapters and 32 new authors. Dr. Alan Wein, Professor and Chairman of Urology at the University of Pennsylvania, has joined as a new editor and has added immeasurably to the sections on neuromuscular dysfunction of the urinary tract and incontinence.

In this edition we have used an organ systems orientation attempting wherever possible to aggregate physiology, pathophysiology, and medical and surgical management into individual sections, thereby providing a "mini" textbook for each subspecialty. We also believed that multidisciplinary authorship of some areas was very important, especially oncology. For this reason, you will note that prostate cancer is now subdivided into multiple chapters written by basic scientists, surgeons, medical oncologists, and radiation therapists. We have maintained an encyclopedic approach to each topic, but have encouraged the authors to use bold type to emphasize important concepts, thus making it easier to glean the essence from each chapter. Also, to make this edition more user friendly we have expanded the use of algorithms and decision trees wherever possible. Finally, this book will be accompanied by a study guide, which we have created to provide a structured approach to urologic education for residents, program directors, and certified urologists. At present, there is no structured curriculum for this purpose and it

is the hope of the editors that this study guide will provide a systematic way to review many of the important areas in each field.

As we enter the 21st century it seemed appropriate to begin the book with the principles of molecular genetics, followed by the more traditional basic sciences such as anatomy. We have grouped renal physiology and pathophysiology together so that the reader can review the entire spectrum from normal physiology to the management of end-stage renal disease and hypertension. By building on a firm base of renal physiology, the reader can better understand the current thinking on acute renal failure, urinary tract obstruction, and renovascular disease.

Section V deals with the transport of urine to the lower urinary tract, normal and abnormal lower urinary tract storage and emptying, and the treatment of voiding dysfunction. Urinary incontinence is such an important topic that it and its treatment are considered in separate chapters in this section even though some overlap with other material is inevitable. Reconstructive and prosthetic surgery for sphincter incontinence are also considered separately here as well as other topics specifically related to female urology. Geriatric voiding dysfunction is likewise important enough to be accorded a separate chapter.

Sexual function and dysfunction, as well as reproductive function and dysfunction, follow in separate sections combining physiology, pathophysiology, and surgery. Benign prostatic hyperplasia represents one of the most common disorders managed by urologists. For this reason, it is now represented as a separate section with six chapters.

The entire section on pediatric urology has been reorganized, with new chapters "Evaluation of the Pediatric Urologic Patient" and "Renal Disease in Childhood." The chapter on "Normal and Anomalous Development of the Urinary Tract" has been expanded to include a section on molecular biology, and the chapter "Neonatal Urologic Emergencies" has been totally reorganized and stresses the most common conditions. In the chapter "Urinary Tract Infections in Infants and Children," there are now new sections discussing the management of girls with recurrent urinary tract infections without anatomic abnormalities and the incidence and detection of pyelonephritis in the absence of vesicoureteral reflux. Congenital disorders of the urinary tract have been subdivided into anomalies of the kidney and ureter, and the

chapter "Vesicoureteral Reflux and Megaureter" has been totally rewritten with new authorship. Long-term results are now emphasized in the chapters on prune-belly syndrome, exstrophy of the bladder, cloacal malformations, and urinary undiversion.

The current approach to urinary stone disease as well as the use of emerging techniques in endourology and laparoscopy is now condensed. The chapter on the pathogenesis of urinary stone disease is immediately followed by alternatives for therapy including ESWL, ureteroscopy, and percutaneous approaches. These sections conclude with the chapter on percutaneous approaches for indications other than stone

disease and an updated overview of the role of laparoscopy in both adults and children with urological problems. These chapters interface well with the following section, which is a compendium of the current status of urologic surgery, and includes open approaches to stone disease.

The editors are grateful for the support of the W.B. Saunders Company and especially to Richard Zorab, the editorial manager, who has facilitated our interactions. We also wish to express our thanks to Faith Voit, Hazel Hacker, Linda R. Garber, and the staff of the W.B. Saunders Company for their patience and help in bringing this ambitious undertaking to publication.

PATRICK C. WALSH, M.D.
For the Editors

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