

Reviews of Books and Software

Principles of Exercise Testing and Interpretation (2nd Edition). Karlman Wasserman, J.E. Hansen, D.Y. Sue, B.J. Whipp, and R. Casaburi. Lea & Febiger, Philadelphia, 1994, 479 pp, \$59.50. ISBN 0-8121-1634-8.

To most clinicians, exercise testing is used mainly to screen or evaluate for the presence of cardiac diseases, especially ischemic heart diseases. Graded exercise testing using a motorized treadmill is most often used, with interpretation based on patient symptoms and electrocardiographic interpretation.

This text has a different emphasis, with detailed electrocardiographic interpretation being notably absent. The authors focus on cellular respiration and respiratory physiology to evaluate an individual's exercise capability, and use abnormal gas exchange patterns to differentiate various pathophysiologic conditions.

The format and organization of the text is excellent. The first seven chapters review the principles and physiology of cellular respiration and gas exchange and explain measurements, results, protocols, and means of interpretation. The last chapter is clinical application, using 79 case presentations. There are six detailed and very practical appendices. The text is well-referenced and makes liberal use of charts and graphs.

The authors skillfully develop and present physiologic principles that, at first reading, can be difficult to apply clinically. Explanations of causes of common symptoms such as fatigue and dyspnea are interesting, as are descriptions of the pathophysiology of disorders such as obesity. The authors, through case presentations, demonstrate how to identify a wide variety of disorders, such as mitral stenosis, interstitial lung disease, and myasthenia gravis, using their exercise testing protocols.

The extensive use of biochemistry and physiology throughout the text can make reading slow and difficult. Frequent references to the appendices for clarification may be necessary for readers who do not use measurements such as anaerobic thresholds, maximum oxygen uptake, or oxygen pulse routinely in their practice.

The protocol requires a cycle ergometer or treadmill, pulmonary function testing, and arterial access, which limits the test performance to an advanced cardiopulmonary laboratory. This

form of exercise testing, then, would be of less value in widespread screening for cardiorespiratory diseases than for making definitive diagnoses for exercise-induced symptoms.

This text is thorough, complete, and comprehensive. It is highly recommended for cardiologists, pulmonologists, and exercise physiologists, but because it does not discuss electrocardiographic interpretation, it is not a text of first choice for clinicians interested mainly in the use of exercise testing for ischemic heart disease.

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Joslin's Diabetes Mellitus (13th Edition). C. Ronald Kahn and Gordon C. Weir (eds). Lea & Febiger, Philadelphia, 1994, 1068 pp, \$125. ISBN 0-8121-1531-7.

Few diseases have been as intensively studied over the years as diabetes mellitus. The scope of understanding in diabetes ranges from molecular biology to clinical care. Since 1916, *Joslin's Diabetes Mellitus* has comprehensively described state-of-the-art treatment for diabetes. The new 13th edition provides an extraordinary reference to both the basic science and the clinical treatment of the known causes of diabetes mellitus. Considerable advances have occurred in basic and clinical research since the 1985 edition. By necessity, this 13th edition is significantly updated and revised. The text, written predominately by the faculty of Joslin Diabetes Center and Harvard Medical School, includes contributions from authorities throughout the world.

Joslin's Diabetes Mellitus is divided into six sections: (1) basic mechanisms, (2) definition and pathogenesis, (3) obesity and lipoprotein disorders, (4) treatment, (5) complications, and (6) clinical aspects. Also included is a small section on hypoglycemia and a historical perspective. The organization of the text clearly separates the clinical aspects of diabetes from the detailed pathogenesis and metabolism sections. A thorough description of patient education materials, dietary management, exercise management, and principles of therapy are included.

One of the outstanding features of the text is the care and attention to detail in the description of current concepts in diabetes research. From insulin biosyn-

thesis to pancreatic transplants, the chapters are thoroughly referenced with extensive lists of citations, frequently numbering between 200 and 500 articles for a single chapter. The text effectively spans an enormous range of research yet is able to maintain a basically clinical focus that keeps it relevant for primary care physicians.

As with any comprehensive text with many authors, there are problems in the consistency and emphasis between chapters. Some chapters refer to glucose levels in milligrams per deciliter, while others refer only to Système International (SI) units without including a conversion chart. In addition, the time taken to compile such an extensive review of the literature necessarily causes some chapters to appear mildly dated. Unfortunately, the body of the text was written before publication of the Diabetes Control and Complications Trial (DCCT). The importance of the results of this study adversely affect a number of chapters. Foreseeing this problem, the editors attached an appendix describing the findings of the DCCT but left it to the reader to integrate those findings into several of the preceding chapters.

Nevertheless, every book must go to print at some date, and the 13th edition provides an excellent description of the extent of diabetes research in early 1993, making *Joslin's Diabetes Mellitus* the most extensive and up-to-date text on diabetes currently available. Only a handful of single diseases deserve an entire reference text on a primary care physician's library shelf. Diabetes mellitus is one of those diseases, and *Joslin's Diabetes Mellitus* should be the reference of choice.

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Family Medicine: Principles in Practice. Robert B. Taylor, Alan K. David, Thomas A. Johnson Jr., D. Melissa Phillips, and Joseph E. Scherger (eds). Springer-Verlag, New York, 1994, 1092 pp, \$130. ISBN 0-387-94025-1.

The fourth edition of *Family Medicine: Principles in Practice* is a more concise and comprehensive family practice text that can be recommended to any physician with particular interest in primary or generalist care. It is worthy of its weight

and size and should be in every generalist's and family physician's library.

The five introductory chapters in Part I capture the principles and provide a broad overview of the philosophy of family practice. They feature preventive medicine principles, including specific preventive medicine practice recommendations from the recent US Preventive Services Task Force and the American Academy of Family Physicians (AAFP) Commission on Public Health and Scientific Affairs.

Part II contains 122 chapters that cover the broad field of our specialty, each chapter written by a family physician or family physician educator who presents the practical applications of each chosen topic common to primary care practice. Although adequate, the subjects are not necessarily covered in sufficient detail or depth to satisfy the rationale behind the diagnostic and therapeutic points relevant to the disorder or disease discussed.

Part III contains six chapters on the general theme of the family physician: professional practice and health care de-

livery. The chapters include a discussion of various health care delivery models, information systems, the content of family practice, career opportunities, and issues affecting the practice of family medicine.

Finally, in the appendix section, Dr Taylor offers an interesting chronology of the evolution of family practice, beginning with the first decade of the 20th century when 80% of America's physicians were general practitioners and the medical education system was deemed inadequate. Physician education under the leadership of the American Medical Association (AMA) underwent a drastic change with the institution of specialty training and board certification. These changes resulted in the drastic decline of the general practitioner, and many people who were once served subsequently were underserved. This led the AMA to accept family practice as a specialty in the 1960s and to develop a new policy in the last decade of the 20th century recommending that every medical school have a family practice department and that each stu-

dent have a clinical experience in family medicine.

Obviously, with so many authors, the text may occasionally be uneven in quality or offer contradictory opinions. Nonetheless, the editors and authors must be commended for their efforts in minimizing duplication, providing up-to-date information and maintaining a high level of quality and readability. The bibliographies and reference materials following each chapter are more than adequate and include the authoritative sources of experts in the field.

This book is not only useful for family practitioners but would be worthwhile reading for those outside the specialty who want to know more about family medicine. This text is a superb contribution to the literature and the practice of our discipline.

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