

book attempts to be comprehensive and from a clinical point of view, it succeeds. I have found the original edition of this book helpful for several years, and I expect this edition to be equally so.

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**Cystic Fibrosis: Infection, Immunopathology, and Host Response.** Edited by Richard B. Moss. Clifton, New Jersey: Humana Press, 1990, 264 pp.

This book, published in the series Allergy and Immunology: Clinical and Experimental Progress (Program Editor M. Eric Gershwin) by Humana Press, is a remarkable up-to-date publication consisting of 13 chapters written by 19 authors, all internationally recognized authorities from the United States. The book contains an excellent chapter on basic aspects of cystic fibrosis (CF) including information on the newly described CF gene and its product, the CFTR, which is a chloride channel.

All the remaining chapters deal with the respiratory disease of patients with CF. Excellent chapters deal with infection and immunity to *Pseudomonas*, inflammation in the CF lung, underlining that this chronic lung infection induces a persistent inflammatory reaction (immunopathology) which gradually destroys the lungs of the patients. Other chapters describe the occurrence of atopy, allergic bronchopulmonary aspergillosis, infection and immunity to *Staphylococcus aureus* and *Haemophilus influenzae*, the impact of respiratory viral infections, upper respiratory disease including sinusitis and polyposis, and airway reactivity in patients with CF.

All these chapters present a wealth of information and extensive reference lists covering American as well as European literature in such an excellent way that reading this book is a "must" for all clinicians and scientists working in this field. Since treatment of respiratory infections in CF patients requires frequent use of antibiotics it is of practical importance that two chapters deal with pharmacokinetics of drugs and with drug allergy in CF, providing practical guidelines for clinicians. The last chapter in the book describes the technique and results of heart and lung transplantation.

In summary, this book presents an up-to-date and comprehensive review of the basic defect and the lung disease in patients with CF.

This book is aimed for scientists and clinicians and can be recommended as an excellent introduction, review, and source of references.

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**Differential Diagnosis of Diseases of the Chest.** By Robert G. Fraser, J.A. Peter Pare, P.D. Pare, and Richard S. Fraser. Philadelphia: W.B. Saunders Company, 1991, 146 pp.

This book is composed of 17 tables of differential diagnosis based on radiologic patterns of disease. These tables are also included in the four-volume set, *Diagnosis of Diseases of the Chest* (Appendix in Volume 4). The goal of the authors in publishing the 17 tables separately was for radiology and pulmonology residents, respiratory therapists, and physicians and surgeons to have a small "pocket" appendage of differential diagnosis. It is designed for practical use and is not meant to be exhaustive in differential diagnosis. There are abundant references in the comment section of these tables to the four volume text.

The tables are divided so they parallel the larger text. These diagnostic categories for differential include: developmental, infectious, immunologic, neoplastic, traumatic, and idiopathic causes. In addition, several chapters have specific categories, i.e. Table 4 has airway disease and inhalational causes. Table 8 has thromboembolic causes and Table 9 has drugs and poisons as well as metabolic disease.

The 17 tables of radiologic patterns of disease are as follows:

Table 1	Homogeneous Opacities Without Recognizable Segmental Distribution
Table 2	Homogeneous Opacities of Recognizable Segmental Distribution
Table 3	Inhomogeneous Opacities without Recognizable Segmental Distribution
Table 4	Inhomogeneous Opacities of Recognizable Segmental Distribution
Table 5	Cystic and Cavitory Disease
Table 6	Solitary Pulmonary Nodules Less Than 3 cm in Diameter
Table 7	Solitary Pulmonary Masses 3 cm or More in Diameter
Table 8	Multiple Pulmonary Nodules, With or Without Cavitation
Table 9	Diffuse Pulmonary Disease With a Predominant Acinar Pattern
Table 10	Diffuse Pulmonary Disease With a Predominantly Nodular, Reticular, or Reticulonodular Pattern
Table 11	Diffuse Pulmonary Disease With a mixed Acinar and Reticulonodular Pattern

Table 12	Generalized Pulmonary Oligemia
Table 13	Unilateral, Lobar, or Segmental Pulmonary Oligemia
Table 14	Pleural Effusion Unassociated With Other Roentgenographic Evidence of Disease in the Thorax
Table 15	Pleural Effusion Associated With Other Roentgenographic Evidence of Disease in the Thorax
Table 16	Hilar and Mediastinal Lymph Node Enlargement
Table 17	Mediastinal Widening

There are no pictures in this book of differential radiologic patterns of disease but each pattern is defined at the outset. There is little in the way of detailed information concerning children, but there are abundant comments when children and adults differ in their presentation, e.g., comments in Table 15 concerning *Staphylococcus aureus* relate that empyema is more common in children (90%) than in adults (50%). It is important to note that this comment then refers specifically to the correct designation in the larger text. It is interesting when discussing pneumatoceles that they are not crossreferenced in the index and there is little discussion of what a pneumatocele really is. Specific reference is found in Table 4 to mycoplasma pneumonia in children, which is differentiated from adults in that hilar node enlargement is found in 20% of children. Table 16 of hilar and mediastinal lymph node enlargement and Table 17 are pertinent to pediatric patients and Table 17 is a good review of the mediastinal masses.

In summary, this is a group of differential Tables without pictures placed in a "pocket guide" for quick reference. It is not primarily designed for differential diagnosis in children but has much information that would be important to know in interpreting chest radiographs of children. It is well worth having the full four-volume series in the medical library of pediatric and radiology departments. The short volume may be useful at the viewbox.

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**The Lung: Scientific Foundations.** By Ronald G. Crystal and John D. West. New York: Raven Press, Ltd., 1991, 2 volumes, 2,224 pp.

*The Lung* is a unique textbook that integrates the various disciplines of pulmonology. The book is divided into eight comprehensive sections that are further subdivided

into related chapters. Three hundred and twelve authors with expertise in pulmonary physiology, cell biology, and morphology contributed to the writing of this book. A concise review of topics relevant to the lung is provided in each of the chapters. The topics range from biochemistry to pulmonary mechanics (including morphology) and cellular communications. Each chapter is easy to read and provides excellent references. The illustrations are clear and the diagrams are easy to follow.

Although *The Lung* is not specifically directed towards the pediatric pulmonologist, I found it to be an excellent reference that addresses both the basic and clinical scientific needs of pediatric pulmonologists. A broad range of topics is covered in a concise manner. Section 1 provides an outline of the book, stating the purpose of each individual section. In addition, each section has its own introduction with a more detailed account of each chapter.

Cell biology, including general biochemistry and cellular interactions within the lung, is introduced in Section 2. Chapters within this section include metabolism, receptor function, and protein products affecting the lung, such as inflammatory polypeptides.

Sections 3 and 4 review the cellular composition of the lung arranged into categories of epithelial, endothelial, interstitial, and mobile cells of the lung. The function of individual cells is discussed in reference to the lung as a working unit. The morphology of the lung related to its development, design, and architecture is reviewed.

Section 5 discusses pulmonary physiology, pathophysiology, and classical pulmonary mechanics. The exchange of gases within the lung and its regulation by neuropeptides, inflammatory cells, and vasoactive mediators is addressed. Pulmonary circulation, ventilatory control, and ventilation are also reviewed. Discussions on the physiology and pathophysiology of clinical entities such as hypoxia, exercise, and sleep are included.

Section 6 chronicles changes in the lung from fetal development to birth and then to adulthood and aging. Changes in gas exchange during development, as well as during neonatal diseases, such as respiratory distress syndrome, are reviewed. Section 7 addresses pulmonary defense mechanisms, injury, and repair. State of the art discussions progress from cellular communications to alterations occurring during disease states. Section 8 addresses the effects of the environment on the lung, specifically entities such as deep sea diving and high altitude states. The authors also review interventional therapies such as oxygen, mechanical ventilation, and lung transplantation.

In summary, this two-volume set provides an excellent comprehensive overview of the lung. It is well written by a number of senior authors. The text integrates the basic sciences with clinical aspects of the lung. The editors have taken a broad topic and have organized it into a readable, concise symposium. I recommend this book to all pediatric pulmonologists, intensivists, and neonatolo-