

*Fishman's
Pulmonary Diseases
and Disorders*

肺脏病学

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TWO**

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Fishman's Pulmonary Diseases and Disorders

Third Edition

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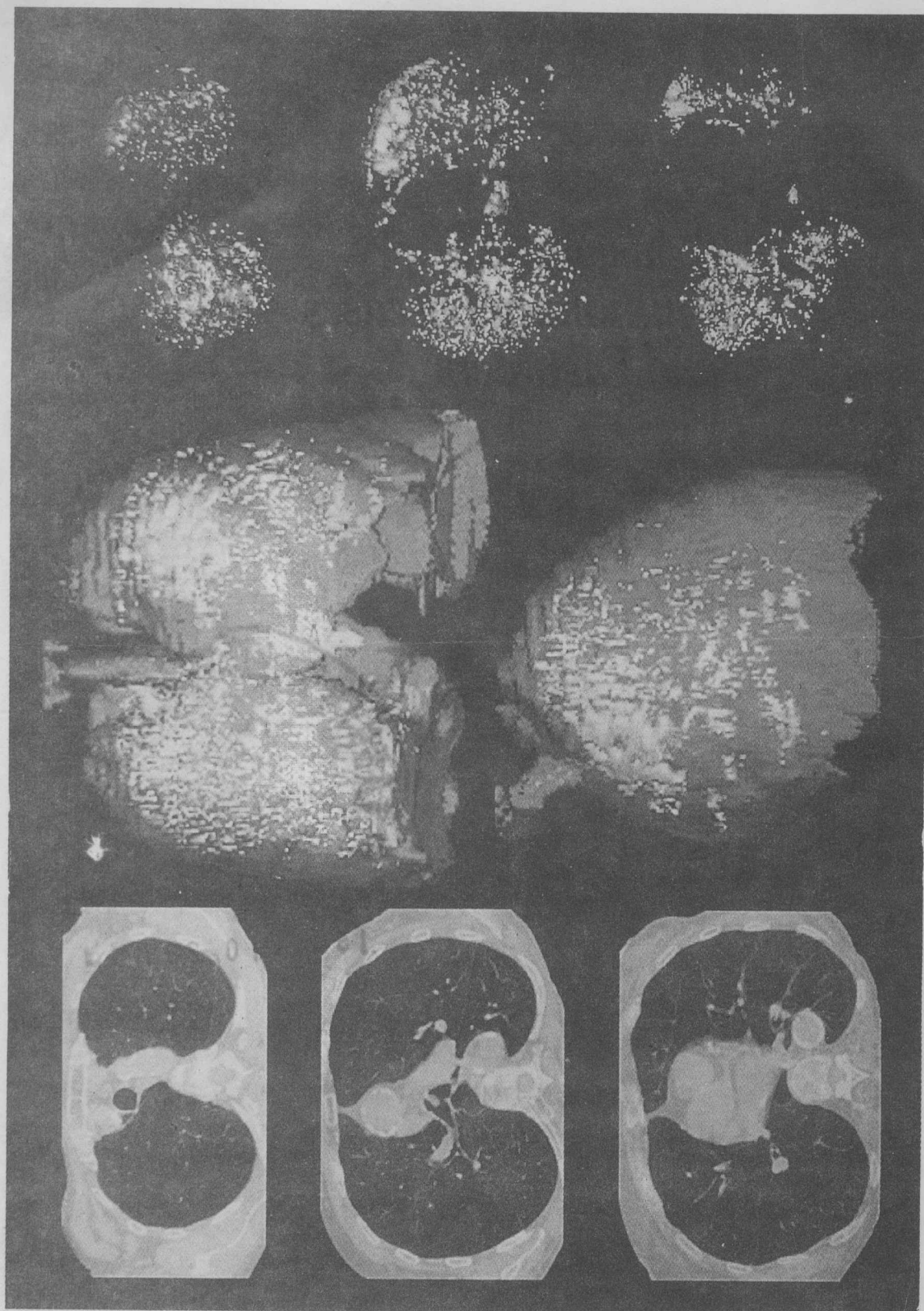
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Volume 1



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Frontispiece: Legend appears on page v.

Alfred P. Fishman, M.D.

To Linda, Hannah; Mark, Martha, Eric; Sarah; Jay, Gayle, Aaron, and Brian

Jack A. Elias, M.D.

To Sandy, Lauren, Alma, and Gabby

Jay A. Fishman, M.D.

To Aaron, Brian, and Gayle

Michael A. Grippi, M.D.

To Barbara, Kristen, and Amy

Larry R. Kaiser, M.D.

To Ruthy, Jeffrey, and Jonathan

Robert Senior, M.D.

To Jerry Flance, Jack Pierce, and Martha

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PREFACE

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Marc Deslaurier

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Eric Rintoul

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Peter H. Buri

FRONTISPIECE: Quantification of regional emphysema by three-dimensional maps of the lungs using newer CT techniques. *Left column:* High-resolution CT (HRCT) scans through upper, middle, and lower lobes. Areas of emphysema characterized by hypoattenuation and diminished pulmonary vasculature. *Center column:* Single breath-holding spiral CT scan. Three-dimensional shaded-surface displays. Areas of emphysema appear in white. *Top:* Both lungs, frontal projection. *Bottom:* Left lung, lateral projection. Distribution of emphysema is heterogeneous affecting predominantly the upper and middle zones. *Right column:* High-resolution CT (HRCT). Regional, three-dimensional axial

projections of the upper, middle, and lower thirds of the lungs. The brightest areas correspond to the regions with highest concentrations of emphysema. *Right lung.* Emphysema occupies 23% of the total lung volume. *From top-to-bottom:* Emphysema occupies 43% of top third, 20% of middle third, and 17% of lower third. *Left lung.* Emphysema occupies 15% of the total lung volume. *From top-to-bottom:* 25%, 17%, and 7%, respectively. (Courtesy of Krishanu B. Gupta, M.D., Ph.D., and Warren B. Gelfert, M.D., Department of Radiology, University of Pennsylvania Medical Center.)

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Section 2

Physiological Principles of Normal Lung Function

Notice

Medicine is an ever-changing science. As new research and clinical experience broaden our knowledge, changes in treatment and drug therapy are required. The editors and the publisher of this work have checked with sources believed to be reliable in their efforts to provide information that is complete and generally in accord with the standards accepted at the time of publication. However, in view of the possibility of human error or changes in medical sciences, neither the editors nor the publisher nor any other party who has been involved in the preparation or publication of this work warrants that the information contained herein is in every respect accurate or complete, and they are not responsible for any errors or omissions or for the results obtained from use of such information. Readers are encouraged to confirm the information contained herein with other sources. For example and in particular, readers are advised to check the product information sheet included in the package of each drug they plan to administer to be certain that the information contained in this book is accurate and that changes have not been made in the recommended dose or in the contraindications for administration. This recommendation is of particular importance in connection with new or infrequently used drugs.

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