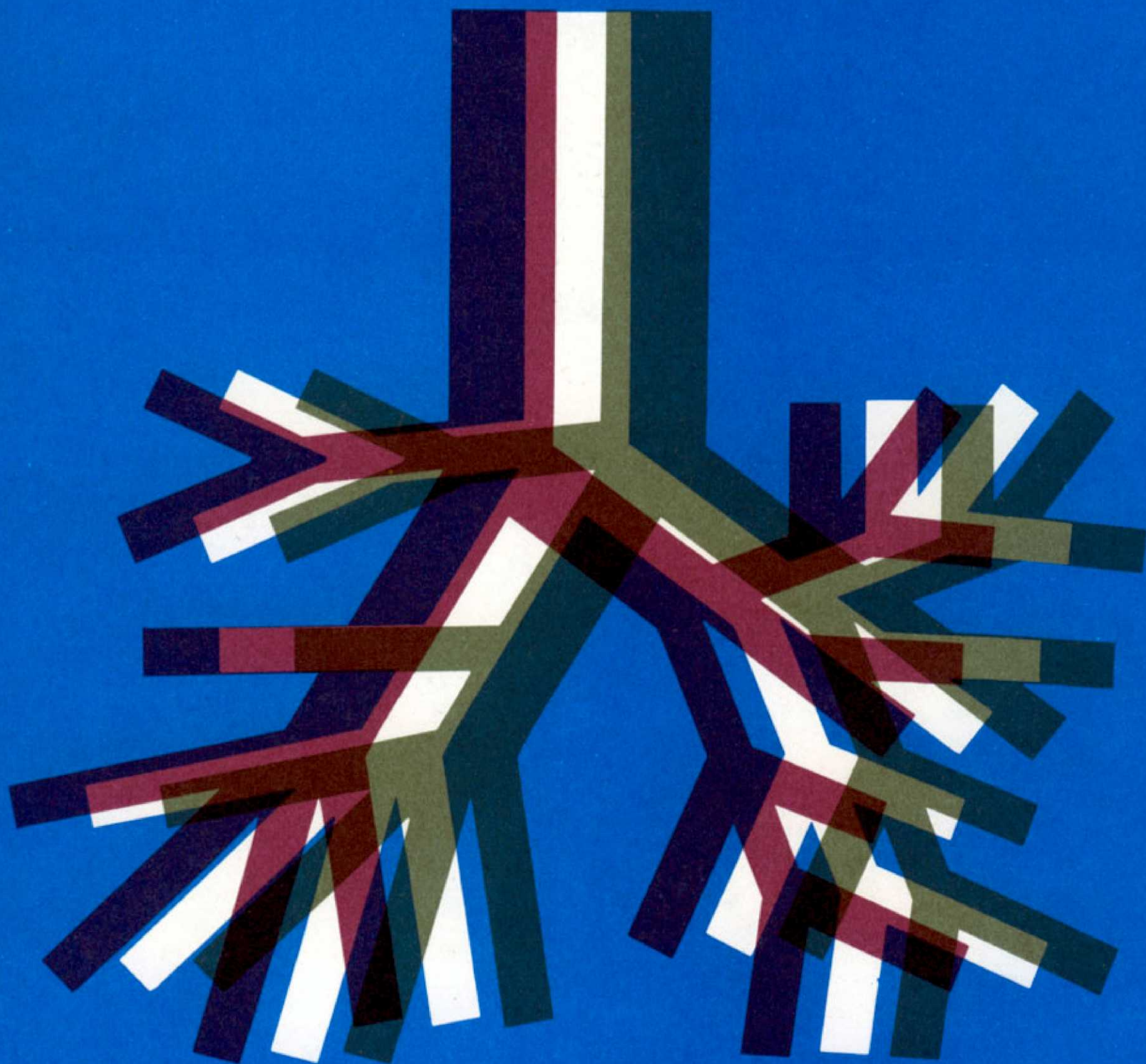


Bronchial Asthma

Mechanisms and Therapeutics

Edited by Earle B. Weiss, M.D.

and Maurice S. Segal, M.D.



Bronchial Asthma

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FOR OUR WIVES, Vicky and Sylvia

Preface

Dum spiro, spero. While I breathe, I hope.

Some 2,200 years have elapsed since Hippocrates used the word *asthma* to describe its episodic shortness of breath. Since this early observation, much of the causation of asthma has been unraveled and in its wake irrational remedies have been abandoned. Time has yielded considerable, if not immense, technological advances encompassing basic and applied disciplines and, hence, a large spectrum of therapeutic modalities. The availability of these modalities, in turn, has increased the demands upon the physician for precision in diagnosis and treatment, a principle which guided the formulation for this book. We believe that a sound acquisition of fundamentals is a prerequisite to a rational therapeutic approach, and have therefore devoted a portion of the book to *mechanisms* and the balance to *therapeutics*.

From its simpler origins, asthma has now become a model of the complex interrelationships of biochemical and biophysical phenomena affecting the integrated structures of the airways and the gas exchange processes, with the inciting pathophysiological mechanisms finally expressed as clinical signs and symptoms. Our knowledge has culminated in the application of a variety of rational measures and modalities aimed at preventing, ameliorating, or reversing these interrelated events. However, the implications of this disorder are becoming so immense, it is doubtful that any one investigator or physician can master the technical background needed to assimilate the disparate disciplines encompassing this subject. It may also be impossible for one book to solve this dilemma, but we have attempted to organize in one volume

the essential fundamentals as we perceive them.

To achieve our goal, we have endeavored to integrate a cooperative effort of collaborators, clearly mindful that this approach is subject to certain limitations. Although the book is directed toward the specialist, internist, or advanced student, effort has been made to provide the introduction and preparation for any interested reader with the usual medical background. Because each subject represents the professional attitude and experiences of the contributing author, we have permitted each chapter to retain its respective flavor, opinions (even divergent), and approach, yet topically integrated into the whole as a balanced, accurate presentation of the current status of asthma. We hope the student of this subject will find, therefore, a sufficient breadth and depth of knowledge in this work, as is our intent. In this rapidly evolving discipline, in which there is an ever-increasing reliance upon factual data, we must apologize for certain omissions or limitations in subject matter, which is of necessity constrained by human and technical factors; we encourage our readers to communicate with us their comments and suggestions.

Above all, the physician tending the patient with bronchial asthma must be a humanistic scientist, mindful not only of factual details but also of the total needs of the patient throughout all phases of this frightening and potentially life-threatening disorder. It is our intent that these pages will provide guidance to a rational understanding and management of a process unpredictable in its course and often all too difficult to control.

The numerous contributing authors have our sincere gratitude for their patience, ami-

able cooperation, and expert contributions; as editors we have gained much from the diverse and distinguished faculty which brought this book to fruition. We note with regret the passing of two authors since the inception of our endeavor, Dr. Milton Rosenblatt and Dr. Raymond Havez. We remain thankful to all those unnamed persons who have ably assisted the respective authors in this effort and are particularly indebted to our own secretarial staff, including Miss Sophie Nikolow, for their timeless and devoted efforts. Doctors Ralph Kendall, Avinash Patwardhan, and Datung Kung have

our gratitude for their invaluable criticisms and suggestions on various chapters, as do the staff of Little, Brown and Company, in particular Mrs. Anne Merian and Mrs. Lin Richter, for their able guidance. The support of the Foundation for Research in Bronchial Asthma and Related Diseases is also acknowledged.

Finally, we dedicate this volume to our wives, Vicky and Sylvia, who should be welcome to find us at home now that the work is completed.

E. B. W.
M. S. S.

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