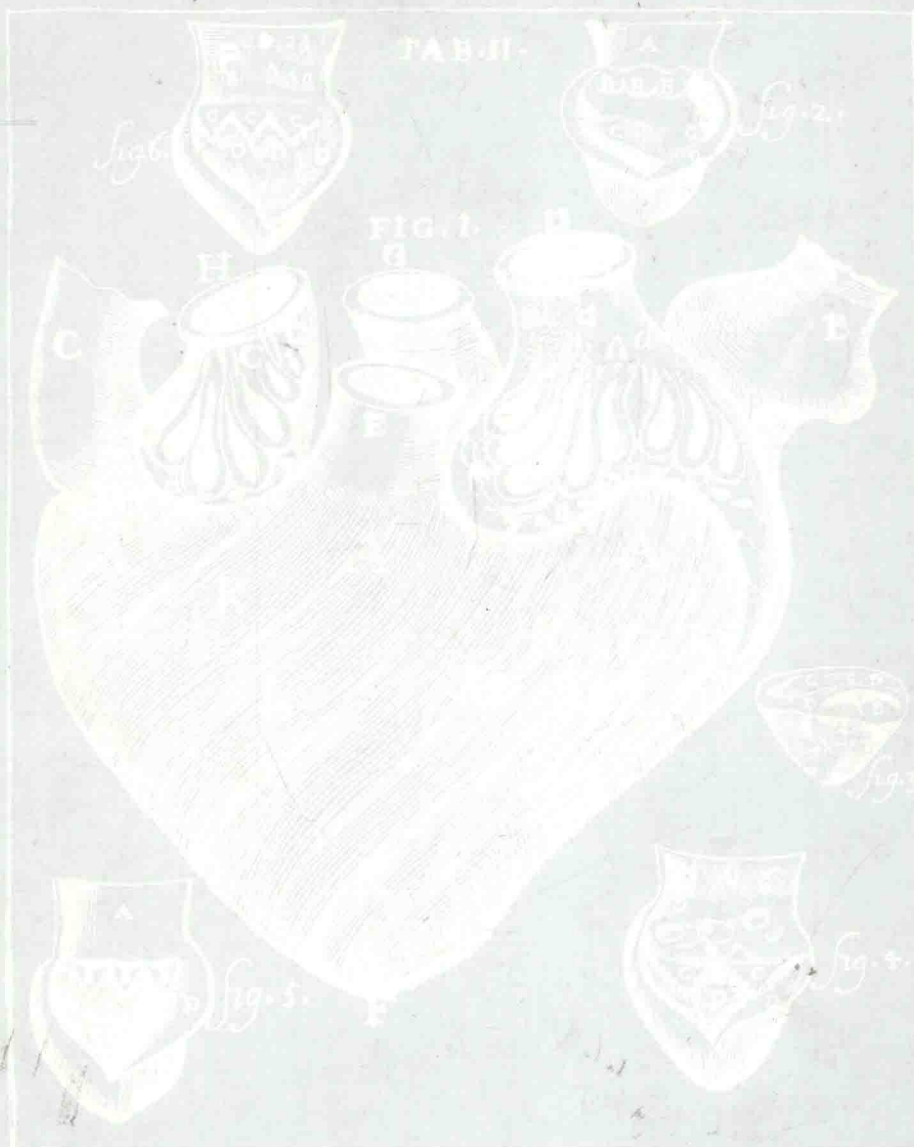


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**CARDIOLOGY**

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# CARDIOLOGY

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# FOREWORD

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Disorders of the cardiovascular system are the most common causes of death and serious morbidity in the industrialized world. In 1996, more than 40% of all deaths in Europe and the United States were attributed to cardiac and vascular diseases. These conditions accounted for almost 10 million years of potential life lost. Indeed, with the aging of the population, the prevalence of cardiovascular disease is increasing steadily and is expected to continue to do so for the foreseeable future.

Despite these sobering statistics, progress in the cardiovascular medicine has been immense, and is, in fact, accelerating. Our understanding of the pathobiology of most forms of heart disease has advanced steadily and there have been enormous advances in the diagnosis, treatments, and prevention of cardiovascular disorders. For example, during the decade from 1986 to 1996, the overall death rates from cardiovascular disease declined by 32%. Similar progress has been made in other major cardiovascular disorders, including hypertension, valvular and congenital heart disease, congestive heart failure, and the arrhythmias.

Cardiovascular diseases are so prevalent that the care of patients with these disorders are increasingly the

responsibility of internists, primary care physicians and family practitioners.

*Cardiology* was developed with these “front line” soldiers in the war against the cardiovascular disease in mind. *Cardiology* is a user friendly, practical book which provides busy practicing physicians with the most current information required to deliver optimal cardiac care. It is authored by a group of highly respected experts, all of whom are active practitioners. *Cardiology* occupies a key niche in the spectrum of textbooks. On one hand, it provides considerably more and detailed information about cardiovascular disease than do textbooks of general internal medicine. On the other, it is far less technical and more succinct than the encyclopedic cardiovascular texts.

Professor Sergio Dalla Volta, the Editor-in-Chief, and his co-editors, Professors Antoni Bayés de Luna, Mireille Brochier, Franz Dienstl, Vlastimil Jezek, Svend Aage Mortensen, and Philip A. Poole-Wilson, all of whom are distinguished leaders in cardiology, deserve thanks and admiration for producing a textbook that will enhance the knowledge and understanding of cardiovascular disease by practicing physicians and thereby improve the care of their patients.

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# PREFACE

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Continuous progress in the understanding, clinical assessment, and treatment of cardiac disease has made it increasingly difficult for cardiologists and internists concerned with Cardiology to deal critically with the enormous amount of information available. Moreover, the steady progress toward an integrated European culture, which the different International Societies have supported with enthusiasm has brought new awareness to European physicians of their role in a common cultural heritage.

Therefore, when McGraw-Hill explored the possibility of a Textbook of Cardiology - mainly reflecting European practice - intended primarily to fill the gap between research accomplished at advanced centers and the daily clinical practice of cardiology I accepted with enthusiasm. This enthusiasm proved contagious among some leading cardiologists in different countries of the Old World, who accepted my invitation to share the responsibility for this venture. I am deeply grateful to the other Editors, Antoni Bayés de Luna from Barcelona, Mireille Brochier from Tours, Franz Dienstl from Innsbruck, Vlastimil Jezek from Praha (whose sudden loss was deeply felt by his many friends and colleagues), Svend Aage Mortensen from Copenhagen, and Philip A. Poole-Wilson from London. Without their knowledge, participation, and fervor, this book would never have been possible.

From the table of contents the reader can imagine the size of the task of putting together these many authors from seventeen countries of all over the world who joined the venture. I believe that each of them was able to provide in a limited number of pages a practical overview of modern cardiology: their job warrants the gratitude of all of us. Also, we deeply mourn the passing of our colleague and friend, Ronald Campbell, who died just after he had completed his chapter.

The book is divided into twelve sections and eighty-

one chapters. Most of the chapters are introduced by some key points that offer the reader an understanding of how the author presents his view of the subject. For clarity's sake, the divisions of these chapters has been made uniform, although sometimes this uniform view can seem a little forced.

This text is intended primarily for general practitioners, but also for cardiologists who wish to maintain their practice at the pace of our expanding knowledge of the many different fields of cardiology and for internists who must care for patients with heart disease. All aspects of the topics considered are up to date: thus, we have been able to bring to interested physicians modern, sometimes provocative, yet proven concepts of today's cardiovascular medicine.

This book has a Foreword by Prof. Dr. Eugene Braunwald: I am very honored and grateful to him for the wonderful words he wrote; but I am even more grateful that he has understood so well the purpose and characteristics of this book and that he has stressed the deep links that unite cardiologists on the two sides of the "Atlantic River."

This edition could never have become a reality without the enthusiastic support of our Publisher. They revised the different chapters, corrected some faults of style of the Contributors whose first language was not English; they accepted freely the counter-corrections of the authors. The proofs finally were revised by the Editors as well as the Editor-in-Chief, who accepts full responsibility for this difficult yet wonderful task.

I wish in particular to express my debt of gratitude to Fulvio Bruno and Sandra Fabiani, both in Milan, for their ceaseless, patient, and intelligent support and to Dereck Jeffers in San Francisco for his enthusiastic help; and to my secretary, Rosanna Bernazzi, for her time-consuming effort during all phases of the production of this book.

Sergio Dalla Volta, MD, PhD  
Padova - Italy

*Ever since Hyppocrates the heart has always been a beating and sounding organ. Since one hundred and fifty years the diagnosis of heart diseases has deserved sensible fingers and fine hearing.*

*The discovery of x-rays, the atomic nucleus, the radioactivity and the use of microelectronics have given us the possibility to detect changes in the heart with this new physical-chemical medium.*

*Many pathological changes can be detected and also quantitatively remarked. These impressive images are for modern cardiology an important tool to help the patient and let us see the heart in a complete new light.*



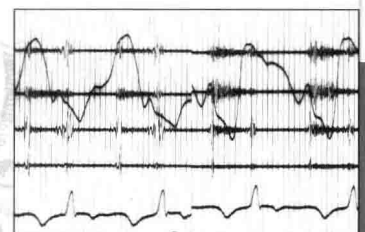
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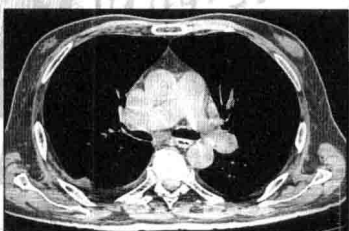
Electrocardiography



Radiography



Phonocardiography



Magnetic resonance



Angiography



Echography

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