Homocysteine in Health and Disease

From Ralph Carmel
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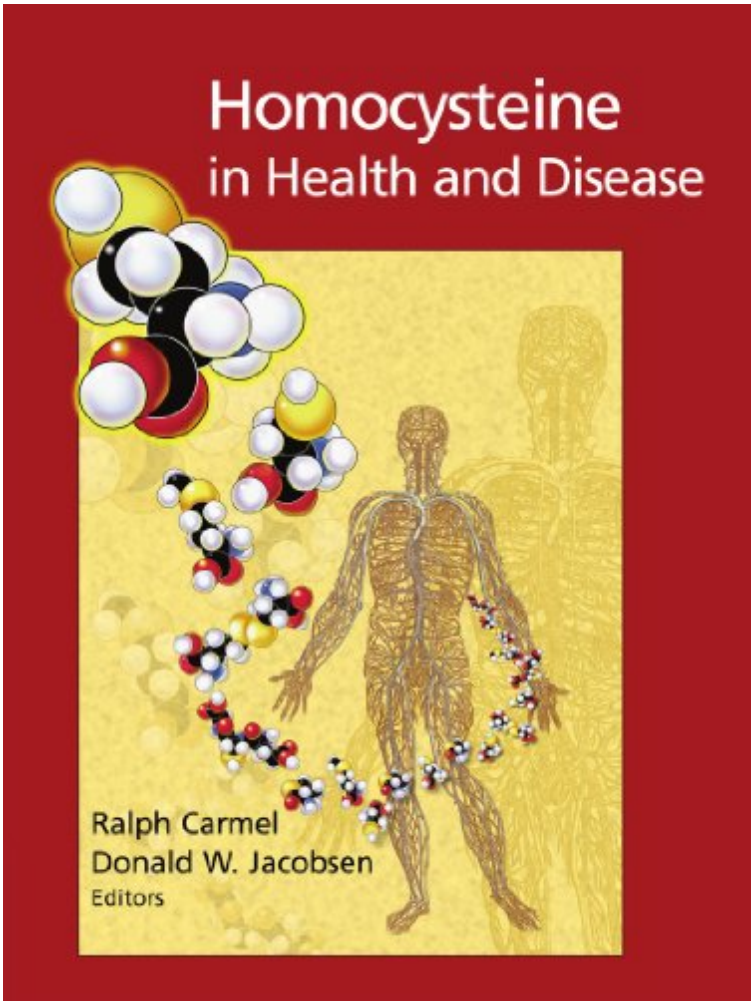

#2405828 in Books Ralph Carmel 2011-07-21Original language:EnglishPDF # 1 11.02 x 1.06 x 8.27l, 2.63 #File Name: 1107402425536 pagesHomocysteine in Health and Disease | File size: 66.Mb

From Ralph Carmel : Homocysteine in Health and Disease before purchasing it in order to gage whether or not it would be worth my time, and all praised Homocysteine in Health and Disease:

High levels of homocysteine, a sulfur-containing amino acid derived from methionine, have recently been identified as a very important risk factor in cardiovascular disease. Homocysteine abnormalities are also thought to contribute to birth defects and dementia. There are many common genetic disorders and problems (such as vitamin deficiency) that adversely affect the metabolism of homocysteine. In this book a team of the world's experts in the field provide a clear, current, clinical analysis of the biochemistry, genetics, and epidemiology of homocysteine disorders, providing a uniquely comprehensive account of the broad range of medical, nutritional and methodological implications of

homocysteine for health and disease.

From The New England Journal of MedicineThe study of homocysteine and its role in homeostasis and disease has grown considerably over the past decade. What began as a series of observations about a rare inborn error of metabolism (homocystinuria) has now evolved into a substantial body of work derived from basic, animal, and clinical studies focusing on the central role of homocysteine in the metabolism of sulfur-containing amino acids and its association with common vascular disorders. Because of the wide range of investigative perspectives adopted in approaching the role of this deceptively simple amino acid in mammalian biology and pathobiology, the thoughtful and critical integration and synthesis of the available data are a timely and welcome exercise. The editors of Homocysteine in Health and Disease attempt to meet this challenge by providing a rigorous and comprehensive overview of the field of homocysteine and hyperhomocysteinemic states. The book begins with a fine historical overview by two leading clinical investigators in the field of homocystinuria, which is followed by two sections comprising 18 chapters on biochemistry and physiology and 21 chapters on clinical disorders. The first 14 chapters of the first section are well-written, carefully prepared, comprehensive reviews of the complex chemistry and biochemistry of homocysteine (Figure 1). They are generally notable for their lack of redundancy, their useful figures and tables, and their integrated style, which suggests a careful editorial hand. In addition, these chapters provide a rich treasure-trove of biochemical detail that is notably absent from other reviews and textbooks. The chapters on physiology are a bit uneven and include only the topics of transport and tissue distribution, renal function, and nervous system responses. Some additional pathophysiological topics are included in the clinical chapters, where they are covered quite well (e.g., in the chapter on homocysteine and hemostasis by Hajjar and the chapter on homocysteine and cardiovascular physiology by Lentz). From the organizational perspective, the editors might have considered including a section on physiology and pathophysiology that incorporated all these topics in a better-integrated fashion. Notwithstanding the overall excellence of the first section of the book, one important topic that is not covered in its own chapter is the molecular biologic aspects of homocysteine -- both its role in modulating gene expression and the detailed molecular biology of the genes responsible for regulating its synthesis and metabolism. These topics are partially covered in several chapters but are not addressed with the well-integrated, comprehensive approach used to review the chemistry and biochemistry of homocysteine. The last 21 chapters offer a marvelous overview of the broad range of pathobiologic processes affected by homocysteine and their role in specific diseases with which hyperhomocysteinemia has been associated. The chapter topics range from the genetics of heritable hyperhomocysteinemic states to the relation between B-vitamin-deficiency states and hyperhomocysteinemia. These chapters are followed by several others that address the specific associations between homocysteine and largely vascular disorders, including thrombosis in venous beds and atherothrombosis in the coronary, cerebrovascular, and peripheral arterial beds. In discussing each disorder, the authors are careful not to confuse association with causation, an issue that vexes much of the clinical literature. In view of the controversy regarding the direct mechanistic relation of hyperhomocysteinemia to vascular disease, the editors could have done the readers a great service by providing a summary chapter at the end of the book highlighting this important issue and the approach that is actively being pursued toward its resolution. Potential approaches to treatment are summarized in the last three chapters, which are reasonably timely, considering the delays that are usual in publishing a textbook of this nature. This is a fine textbook that should be of interest to clinicians and basic scientists who are interested in homocysteine and its potential role in a variety of disease states. The authors and editors have all made important contributions to this evolving field and, from the perspective of their own investigative experience, offer the reader a clear, comprehensive, authoritative guide to this complex topic. Joseph Loscalzo, M.D., Ph.D. "This book is impressive in its scope and comes at a time when many have heard of homocysteine but few really understand the molecule...an invaluable handbook." Journal of the Royal Society of Medicine"Provides an excellent up-to-date review." Brain"Homocysteine in Health and Disease, is the most up-to-date resource available on the subject" Brooklyn, NY Park Slope Courier Nov 2001"There is no better starting point for anyone wishing to learn more about homocysteine and B vitamin metabolism ... this book provides ample 'food for thought.'" International Journal of Geriatric Psychiatry"Homocysteine in Health and Disease gives a clear up-to-date analysis of the biochemistry and metabolism of homocysteine and the genetics, epidemiology, clinical settings, causes, impact and treatment of homocysteine disorders." Brooklyn NY Daily Eagle Daily Bulletin Nov 2001"[The editors] have successfully bridged the interface between the relevant basic and applied sciences and produced a beautifully balanced overview of the role of homocysteine in health and disease. There is no publication like it in this specialty, where it is likely to become the standard reference..." Graeme J. Hankey, Department of Neurology, Royal Perth Hospital, Perth, Western Australia"[A] rigorous and comprehensive overview of the field of homocysteine and hyperhomocysteinemic states...a fine textbook that should be of interest to clinicians and basic scientist who are interested in homocysteine...a clear, comprehensive, authoritative guide to this complex topic." The New England Journal of Medicine Feb 2002"This is a fine textbook that should be of interest to clinicians and basic scientists who are interested in homocysteine and its potential role in a variety of disease states. The authors

and editors have all made important contributions to this evolving field and, from the perspective of their own investigative experience, offer the reader a clear, comprehensive, authoritative guide to this complex topic." Joseph Loscalzo, New England Journal of Medicine, Jan 2002"Homocysteine in Health and Disease is a comprehensive book with good citation of contemporary primary literature. It does a nice job of describing the physiological relevance of homocysteine, an important amino acid that site at a crucial branch point between the remethylation (folate and methionine cycles) and transsulfuration pathways, and covers the pathophysiological and clinical consequences of defects in its metabolism...this book makes a compelling case for why we must take notice of hyperhomocysteinemai as a risk factor for cardiovascular disease. Primarliy, this book will be useful for independent study, and will be acceptable to graduate and professional students, clinicians and research scientists." Trends"This book provides an excellent up-to-date review of scientific and clinical grounding of homocysteine metabolism in health and disease, illustrated attractively with useful diagrams and figures. It is well-indexed, with an extensive bibliography. This book will be of interest and a good reference text for both basic scientists and clinicians." BrainAbout the Authorfm.author_biographical_note1fm.author_biographical_note2