Obesity and Diabetes

Edited by

Christos S. Mantzoros, MD, DSc

Humana Press
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The Diabetic Kidney, edited by Pedro Cortes, MD and Carl Erik Mogensen, MD, 2006

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DEDICATION

To my parents and teachers;
  without them, this work would never have been possible,
and to my students and patients;
  without them, this work would never have had real meaning.
It is common knowledge that diabetes has become, over the last few decades, one of the most important public health problems. This is mainly the result of the explosive increase in the number of people who are diagnosed with type 2 diabetes in every part of the world and in almost every society, whether they have limited or advanced resources. As a matter of fact, it is the developing countries that present themselves with the highest rate of increase in diabetes. It is also not surprising that the increase in type 2 diabetes is accompanied by and related to the increase in obesity, which in some countries, like the United States, tends to be at an epidemic level. The terms “diabesity” and “metabolic syndrome” are recent additions to the medical dictionary, and they refer to new conditions that were described during the last 20 yr.

The management of diabetes and the complications that are associated with it, such as cardiovascular disease, neuropathy, retinopathy, and renal disease, is one of the main challenges of medicine in this century. It has long become obvious that this task cannot be achieved by the efforts of one discipline, which traditionally has been endocrinology, but will require a multidisciplinary approach that includes the services of numerous health professionals, such as the primary care physician, the endocrinologist, the specialist nurse, the dietitian, the exercise physiologist, the cardiologist, the podiatrist, and the vascular surgeon, to name only a few. In addition, the financial burden of the management of both diabetes and obesity is very high, and in some cases prohibitive, even in advanced societies that can afford to allocate considerable recourses for this purpose.

Education of the health professionals who are involved in the management of diabetes is probably one of the most important priorities. In that sense, I feel very excited and privileged that Humana Press has asked me to be the editor of its Contemporary Diabetes series. I hope that our collaboration will lead to the publication of high-quality books that will be edited by scientists who are world leaders in this field. It is our hope that these books will have a significant impact in the management of a condition that can affect the lives of so many people.

I am proud to present *Obesity and Diabetes*, the first book in the new series, which was edited by Dr. Chris Mantzoros, MD. Dr. Mantzoros, a friend and compatriot of mine who also works in the same institution with me, is a world leader in the field of obesity and its links to diabetes. In this volume, he has managed to bring together all of the authorities in diabetes and obesity to produce a high-quality book. I have no doubt that his work can be a major contribution and help the medical community to manage these conditions.

*Aristidis Veves, MD*

*Series Editor*
Obesity and diabetes are reaching epidemic proportions in developed countries in the 21st century while, at the same time, they are also becoming disturbingly more prevalent in developing countries. In the United States alone, one-third of the population is obese and another third is overweight, more than 10 million people have been diagnosed with diabetes mellitus, and another 5 million remain undiagnosed. Similar numbers have been reported in other Western nations as well. Because these disease states are closely linked with the development of serious complications, including cardiovascular disease and several malignancies, their impact from a public health perspective is enormous and continues to increase. As the population ages and becomes more sedentary, the morbidity and mortality associated with obesity and diabetes will continue to escalate.

Thus, it is imperative to focus our research efforts on trying to understand the etiology of obesity and diabetes as well as the mechanisms underlying the development of the complications associated with these conditions. It is also critically important to focus our public health efforts on the prevention and our clinical efforts on the treatment of these disease states. Obesity and Diabetes furthers these goals by presenting a comprehensive review of both the research and clinical aspects of obesity and diabetes to scientists and practicing clinicians alike.

Part I (Chapters 1 and 2) is a review of the history and epidemiology of these conditions. Part II (Chapters 3–7) focuses on the genetics and pathophysiology of obesity and diabetes, reviewing known mechanisms and interactions. In Part III (Chapters 8–23), the diagnosis, clinical manifestations, and complications associated with obesity and diabetes are discussed in detail. Finally, Part IV (Chapters 24–31) presents state-of-the-art approaches (lifestyle and pharmacological) to the treatment of these conditions.

I am indebted to the many people, all leading experts in their respective fields, who have contributed to Obesity and Diabetes. I certainly hope that our efforts will not only serve as a stimulus for further research in this increasingly important field of medicine, but also provide cutting-edge and clinically vital information to our students and practicing colleagues that will enhance the quality of care that we provide to our patients.

Christos Mantzoros, MD, DSc
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