Obstructive Sleep Apnea in Adults
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Jeffrey S. Borer  New York, N.Y.
Obstructive Sleep Apnea in Adults

Relationship with Cardiovascular and Metabolic Disorders

95 figures in color, 37 tables, 2011
To my wife Liora and
my children Alexandra and David
for their patience and tolerance

In memory of my mother and father
Disclosure Statement
A.L. has participated in speaking engagements for Linde Healthcare and Pfizer. He has no financial conflicts of interest with the subject matter discussed in this book.
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Preface

The relationship between obstructive sleep apnea (OSA) and cardiovascular and metabolic diseases is a topical subject of concern to a wide range of specialists and general practitioners. In the last 2 decades, significant advances have been made in the understanding of factors contributing to, and the complications of, OSA. With the increase in the population levels of obesity (the greatest risk factor for OSA), the effects of OSA are likely to increase in the coming years; therefore, there is a corresponding need for wider education concerning this disease. The goal of this peer-reviewed book is, therefore, to provide a comprehensive and clear review of the current knowledge of the relationship between OSA and cardiovascular and metabolic diseases.

Separate chapters describe the definition, symptoms and sequelae of OSA in adults, and the diagnostic strategies and treatment options for adults with OSA according to the American Academy of Sleep Medicine (chapter 1). The pathogenic mechanisms by which OSA may contribute to the development and progression of cardiovascular and metabolic disorders, including inflammation, oxidative stress and thrombosis, are also explored (chapter 2). In addition, special emphasis has been given to the relationship between OSA and obesity, alterations in glucose metabolism, and metabolic syndrome and liver injury (chapter 3). The evidence for a relationship between OSA, endothelial dysfunction, autonomic dysfunction and cardiovascular disorders is also presented, and the results of studies investigating the effect of treatment for OSA on the concomitant cardiovascular disease are discussed (chapters 4–6). The chapters tend to emphasize human rather than basic animal data; nevertheless, animal data are cited, particularly, for example, with reference to the difficulties associated with unraveling the mechanisms of metabolic dysfunction in obese populations, in which the prevalence of comorbidities and potential confounding factors is high.

Each chapter summarizes the essential information and is illustrated by tables and figures, many of which are drawn from the articles cited in the text. It is my hope that these easy-to-read tables and figures will aid the readers in their understanding of the complex systemic interactions involved in this disease.

Alain Lurie, Paris
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