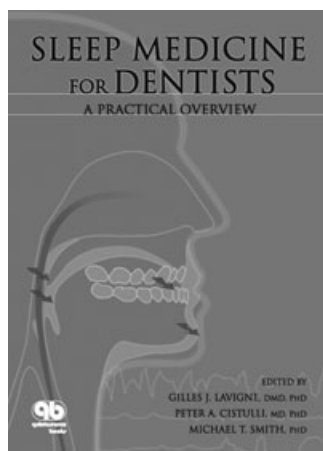


## Book Reviews

### Sleep Medicine for Dentists: A Practical Overview



*Edited by Gilles J. Lavigne, Peter A. Cistulli and Michael Smith.  
Quintessence Publishing Co., Inc. Hanover Park, IL, 2009; ISBN 978-0-86715-487-0 (224 pages; illustrated; not full-color; price \$68.00; hardcover).*

As dental professionals, we are capable of expanding our diagnostic and treatment horizons into the important realm of sleep medicine. This text provides a thorough explanation of the field and shares how we can collaborate with and become members of sleep medicine's multidisciplinary diagnostic, treatment, and research teams. Many students, clinicians, and researchers will undoubtedly find the information and opportunities presented to be fascinating and provocative. The editors and their forty-five contributors are physicians, dentists, scientists, and educators from leading institutions, representing virtually every medical, dental, and scientific specialty associated with sleep medicine. While sleep medicine is a well-established field with tomes of associated scientific literature and texts, the burgeoning dental branch, now referred to as dental sleep medicine, has, until now, lacked a cohesive and authoritative text. As will be described later, the few criticisms for this text have to do with the lack of detail in the chapters devoted to the dental aspects of sleep medicine, and how some of the sections are titled. The book is divided into four sections, and is generally accurate, well written, concise, and easy to read and comprehend. Numerous clear and simple illustrations, diagrams, tables, flowcharts, and photographs of various imaging modalities nicely support and enhance the presentation.

The title of the first section, "Introduction to Dental Sleep Medicine," appears to be a misnomer. Dentistry's specific roles in sleep medicine are not addressed until several chapters later, well into the second section. Nonetheless, the nature and neurobiology of sleep and the classification of sleep disorders are well explained in this section. Just as the general dentist must have a solid foundation in human anatomy, physiology, and

internal medicine, the dental sleep medicine practitioner must understand the science of sleep and its associated medical disorders. Although this information is new and foreign to the dentist, the authors carefully explain technical terminology, appropriately limit the amount of detail, and do not presuppose any prior knowledge of the subject matter.

The second section, entitled "Sleep Breathing Disorders," also seems to be misnamed. The first few pages of the first chapter list and briefly describe the five major categories of sleep-related breathing disorders, but the remainder of the section deals with only one of those categories, Obstructive Sleep Apnea (OSA). Fortunately, OSA deserves the attention it is given. With respect to dental sleep medicine, OSA is the primary subject matter, and the text does not disappoint here. In logical sequence, the pathophysiology, long-term consequences, diagnosis/testing and treatment of OSA are all very well presented. Even though each aspect is given very few pages, they are all chock full of relevant and salient concepts, which are based on numerous scientific and clinical studies. What could have easily been dry and difficult to retain is remarkably simple, yet comprehensive. When the reader reaches Chapter 10, "Oral Appliances," he or she will possess the requisite knowledge base to comfortably begin learning about dentistry's vital role in the treatment of OSA. As oral appliances for the treatment of OSA represent the core of dental sleep medicine, the eight pages devoted to the subject are insufficient. Only the very basic mechanisms of action of oral appliances are addressed. Remarkably, the chapter has no illustrations or photographs of any of the many commercially available appliances. Clinical protocol for oral appliance therapy is also handled in a very cursory manner. Hence, the reader will have to consult journal literature, or take continuing education courses to obtain even a basic understanding of this necessary information. The last chapter in the second section, "Dentofacial Orthopedics," provides a brief but adequate explanation of some of the anatomic bases for OSA, and the role of orthopedic therapy. At the conclusion of Section Two, the reader should be able to have intelligent, productive conversations with sleep physicians to initiate referral relationships.

As many dentists are already treating sleep bruxism (SB), Section Three, "Sleep Bruxism and Movement Disorders," may provide an immediate broadening of the understanding of this condition, and how to effectively manage it. Regarding SB, the text provides useful information, such as definitions, epidemiology, etiology, pediatric considerations, and risk factors. The topics of clinical diagnosis, pathophysiology, and management (both dental and non-dental) of SB are also adequately addressed. The subject of movement disorders is limited to physiologic and pathologic orofacial movements such as swallowing issues, rhythmic masticatory muscle activity (RMMA), coughing, hiccups, and sleep talking. While the dentist's role is limited

in most cases, it is important to recognize these problems and their possible orofacial sequelae, and to take appropriate action whenever possible.

The last section, "Sleep and Orofacial Pains," deals with the simple fact that chronic pain disrupts sleep. The chapters in this section provide reasonably detailed and interesting explanations of the pathophysiology of chronic pain, the neurobiologic mechanisms, clinical implications, and interventions for sleep loss/pain interactions, the association of orofacial pain conditions and sleep disturbance, and the impact of TMD and associated pain on sleep. The complex field of pharmacological management of sleep/pain interactions is thoughtfully summarized. Finally, non-pharmacological management in the form of cognitive behavioral therapy (CBT-I) is introduced.

The conclusion effectively communicates the position that dentists are well positioned to become proficient in the field

of dental sleep medicine. Specifically, our experience with fabrication of oral appliances and our intimate knowledge of the anatomy and physiology of tissues closely linked to several types of sleep disorders makes us ideally suited. The authors then reiterates the most relevant concepts of three major topics of the book, sleep-disordered breathing, sleep bruxism, and sleep/pain interactions. Next, he makes a compelling case for the need for more and better research and clinical trials in dental sleep medicine. Lastly, the point is made that "the ability to substantially improve the quality of a patient's life can be a very rewarding experience."

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