

Second Edition

Handbook of Clinical Techniques in Pediatric Dentistry

Edited by Jane A. Soxman



WILEY Blackwell

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Edited By

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Allison Park, Pennsylvania, USA

WILEY Blackwell

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Foreword

As a dentist for over 40 years, my career has been a blend of teaching and research pursuits and the private practice of pediatric dentistry. The integration of sound scientific and evidence-based information with everyday clinical practice has immeasurable value to the clinician. The two must go hand in hand. The practicing dentist must be able to deliver care based on sound scientific principles, while maintaining the practicality of delivering that care in a busy private practice.

Dr. Soxman is ideally suited for this task. As a practicing pediatric dentist for nearly 38 years, she has numerous publications, presented countless continuing education courses throughout the United States, as well as contributing to pediatric dental and general practice residency programs for many years. This love of education and translating scientific evidence into clinical know-how is what makes this second edition of *The Handbook of Clinical Techniques in Pediatric Dentistry* so valuable.

It often seems that not much changes in the world of pediatric dentistry, but the addition of several new chapters in this edition of the book tells a different story. Since the publication of the first edition there have been several significant trends in dentistry for children, and the addition of these chapters reflects those trends. Issues such as caries risk assessment, the noninvasive management of caries, an increased desire for more esthetic restorative options for children, and sleep disordered breathing in children are all clinical concerns

that have increased in importance, hence their inclusion in this edition.

Dr. Soxman has chosen 19 others to contribute to this textbook, and like the blend of her own professional career, her collaborators are a blend of many well-known pediatric dentists in private practice, as well as several accomplished academicians and researchers. I have had the pleasure of knowing, working with, and collaborating with several of these individuals. The result of Dr. Soxman's collaboration is a well-illustrated, simplified, step-by-step approach to most common clinical challenges that a practitioner who treats children needs to know. While the book is scientifically solid, its strength, as in the first edition, is the clinical relevance and presentation of techniques that have been practiced with proficiency by those writing about them.

It is a pleasure to endorse a book of this caliber. It can serve not only as a textbook for those still learning, but as a reference manual for those who have been practicing for several years. Congratulations to Dr. Soxman and her collaborators on producing this updated, comprehensive textbook. I am confident that those clinicians who put into practice what they read in this text will be well served. But more importantly, so will the children who are treated by those clinicians be well served!

**William F. Waggoner, DDS, MS, FAAPD,
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Las Vegas, NV**

Preface to the Second Edition

The second edition of *The Handbook of Clinical Techniques in Pediatric Dentistry* offers dental students, postgraduate dental residents in both pediatrics and general practice, along with practicing dentists and hygienists, succinct evidence-based guidance with supporting photographs, for treatment in the primary and young permanent dentitions. This second edition aims to provide the most recent advances and modifications, along with new methodologies for dental treatment.

Since publication of the first edition, treatment of dental caries at the lesion level has shifted from invasive to less invasive or non-invasive methods. This more conservative approach is a major development in clinical dentistry. The purpose of providing less invasive or noninvasive techniques for dental care is to arrest, reverse, or curtail caries progression without use of local anesthesia, the rubber dam, or the dental drill, and/or to preserve tooth structure. These modalities also may avoid sedation in order to provide quality care for a fearful, special healthcare needs, or uncooperative patient. Pediatric patients, who are too young to cooperate for definitive treatment, can be safely treated, while protecting the developing psyche, without the possible risks with sedation or general anesthesia. This second edition begins with a new chapter, “Non-Invasive and Minimally Invasive Treatment of Dental Caries.”

Another new chapter, “Caries Risk Assessment,” is included too. The aim of this chapter is to provide a guideline for hygienists and dentists to identify caries risk, enabling the structure of an individualized preventive care

plan, along with appropriate management of both noncavitated and cavitated carious lesions.

Other new chapters are “Management of Esthetic Concerns,” “Traumatic Injury to the Primary Incisors,” “Interceptive Orthodontic Treatment in the Mixed Dentition,” “Clinical Examination of the Infant,” “Clinical Examination of the Patient with Special Healthcare Needs,” “Sleep Disordered Breathing in Children,” and, finally, “Pediatric Oral Medicine.” Most of these chapters were written by contributors with particular expertise and interest in the subject matter.

Other chapter additions and revisions for the most up-to-date clinical guidelines are included for molar–incisor hypomineralization and the latest research findings on stainless-steel crowns. Behavior guidance and local anesthesia chapters are enhanced by an educator who is known and published with a focus in those two topics. New findings from a systematic review and meta-analysis on nonvital pulp therapy are included in the chapter on nonvital pulp therapy for primary teeth. Indirect pulp therapy for primary teeth has gained popularity as a less invasive vital pulp treatment and is described in the chapter on vital pulp therapy. Finally, the indications and procedures for both indirect and direct pulp therapy in the young permanent dentition complete the mission to provide the most recent evidence-based treatment at the time of this second edition’s publication.

Jane A. Soxman, DDS

Preface to the First Edition

While speaking at an annual session of the American Dental Association, Wiley Blackwell publications requested that I meet with a commissioning editor. He inquired whether I had ever considered writing a book and if so, on what subject. My response was without hesitation. Over the past 20 plus years as a national speaker in continuing education and as a seminar instructor for general practice residents, I recalled the myriad of questions asked. I had often thought that a book on clinical techniques would provide much needed guidelines and directions for dental students, general dentists, and graduate general practice and pediatric dental residents. This book would include step-by-step descriptions, augmented with clinical photographs of routinely performed procedures and evidence-based recommendations.

The Handbook of Clinical Techniques in Pediatric Dentistry provides the clinician with an increased level of expertise and skills for timely identification and intervention for various presentations in the developing dentition. It also clearly describes procedures for treatment in the primary and young permanent dentitions. The most commonly encountered treatment needs are discussed, with the goal of increasing clinician and staff confidence, while decreasing chair time and stress. What you will learn and incorporate into your practice will be of tremendous benefit to you, your staff, and the children for whom you care.

Jane A. Soxman, RN, DDS
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Acknowledgments

My vision for this second edition was to expand the content, including timely topics of relevance written by educators with particular interest and expertise in their chapter topics. Fortunately, every invited contributor joined this endeavor. I am honored and grateful for the contribution of each that fulfilled my intentions for this second edition. The first edition contributors also deserve recognition with updates to the majority of the chapters. This book is embellished with photographs to significantly enhance each chapter, providing a better comprehension of the written text. I sincerely thank each contributor for his or her time and effort to create this second edition, which will surely enhance confidence and

the quality of care provided to our youngest patients. I would like also to acknowledge two of my staff members, Karen Evans and Denise Cafeo, who were immediately available to assist with any problem, complying with our guidelines and downloading the exceptional photographs. Finally, once again, for her attentiveness to the quality of the photographs, her patience, her steadfast devotion to me, and her gentle nature in caring for our patients, I dedicate this second edition of *The Handbook of Clinical Techniques in Pediatric Dentistry* to my assistant of 28 years, Beth Ann Sutter.

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