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# ESTHETIC DENTISTRY

## A Clinical Approach to Techniques and Materials

Third Edition

**Kenneth W. Aschheim, DDS**

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*In memory of my parents, David and Edith – together they pointed me in the right direction. And to my wife, Susan, her parents, Herb and Edith, and my children, Sara and Joshua, who have joined me along that path and without whom I could not continue to find the way.*



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# Foreword



The Great Recession caused those in every aspect of the dental profession to re-examine their priorities, overall goals, techniques and materials, purchases of devices and equipment, and patient public relations. Fixed prosthodontic procedures were reduced significantly; many elective procedures in all areas of dentistry were delayed or reduced and many dentists had far less clinical activity.

However, what area of dentistry was still in high demand during this economic down? Esthetic dentistry concepts and procedures were still near the top of all oral procedures in demand by patients. Were the esthetic procedures the same as before the recession? No, they were somewhat different. They were more conservative. The procedures were segmented and spread over time instead of accomplished all at once. Often, the materials used for the procedures were different, such as the placement of direct resin veneers instead of indirect ceramic veneers.

A very clear conclusion can be made relative to the changes in esthetic dentistry during those few years of economic frustration.

Esthetic dentistry is a major and permanent patient desire. Patients want to look better, feel better about themselves, have higher self-esteem, and be able to smile without hesitation.

Esthetic dentistry has become high on the wish lists of most people and they will seek and find those practitioners who will provide the esthetic procedures they desire.

The third edition of *Esthetic Dentistry* provides to dentists the entire gamut of eclectic esthetic procedures to satisfy those patients with and without economic challenges. The concepts and techniques are timely, authoritative, easy to understand, and implement.

**Gordon J. Christensen, DDS, MSD, PhD**  
**Diplomate American Board of Prosthodontics**

# Preface

Dental materials and techniques have significantly changed since the first edition of *Esthetic Dentistry: A Clinical Approach to Techniques and Materials* was published over 20 years ago. However, the need for precise step-by-step presentations including nuanced clinical tips—two of the hallmarks of this textbook - has not. Dental restorations exhibiting exquisite esthetics and physiologic function are now not only well within the province of today's dentist, but are considered the "standard of care." In keeping with the successful formula of the previous two editions we have created a definitive, all encompassing, single source of information presented in a clinically relevant, user-friendly format.

Resolution of a cosmetic dental problem requires the practitioner to determine a diagnosis, formulate a treatment plan, and select the appropriate instruments and materials. Treatment must then be performed in an orderly fashion with an understanding of proper clinical technique and specific material manipulations. The competent clinician will approach any cosmetic dilemma in this manner. We therefore organized this text to duplicate this sequence of thought processes and clinical operations.

A Troubleshooting Guide (Part 1) quickly directs the practitioner to appropriate information in this textbook. It permits diagnosis and treatment planning at a glance and provides cross-references to more detailed discussions of material selection and clinical technique.

Part 2, Principles of Esthetics, lays the foundation of basic esthetic principles. A detailed discussion of the fundamentals of esthetics and the relevancy to dentistry is presented. The principles are referred to throughout the textbook to link clinical relevancy to basic theory. A section on facial and tooth biometrics has been added.

Part 3, Esthetic Materials and Techniques, aids in selecting the correct materials for a specific clinical situation. The concise discussion of basic material science enables the clinician to fully understand the ramifications of using the various materials currently available. Furthermore, this serves as a basis of comparison enabling an effective evaluation of new materials as they are introduced. Detailed step-by-step clinical techniques delineate

appropriate armamentarium and include specific procedural nuances and numerous highlighted Clinical Tips. This facilitates a sound clinical approach. Also included is a comprehensive discussion of special considerations, indications, and contraindications for each technique and material presented, as well as numerous case presentations. A new chapter on Luting Agents has also been added.

Part 4, Esthetics and Other Clinical Applications, is a specialty-oriented section that presents an overview of other clinical applications by eminent practitioners. Included are such dental specialties as orthodontics, periodontics, and oral and maxillofacial surgery. This edition includes entirely new chapters covering implant surgery, implant prosthetics, and CAD/CAM technology, as well as extensive updates of other clinically relevant topics such as laser surgery and dental photography. As with the previous editions, the clinical relevance to the esthetic dentist is stressed by using case studies, office forms, and clinical techniques. Advanced techniques and criteria are presented to aid the dentist in determining when to refer a patient for specialty care.

Part 5, Esthetic Practice Management, details important patient psychology, marketing, and jurisprudence information. Today's clinician will find this section helpful in meeting the challenges facing dentistry and in managing a successful dental practice. A new section on social media has been included to cover this emerging field.

A new Part 6, Esthetics and Social Issues, covers some of the challenges that appear when treating unique dental and social issues such as eating disorders and domestic violence. The goal of these chapters is to not only heighten the awareness of these problems, but also to gain an understanding of their recognition and management.

As our profession proceeds through the twenty-first century, esthetic dentistry offers a new era of doctor and patient satisfaction and excitement. We hope we have shared our own enthusiasm in the pages of this text.

**Kenneth W. Aschheim, DDS**

# Acknowledgments



A textbook of this magnitude requires the combined efforts of many talented individuals. As with the previous editions, I am cognizant that this work was built on the “shoulders of giants” in the field of esthetic dentistry and dental materials. Their collective expertise and the diligence and knowledge of the contributors made this book possible. These learned colleagues surpassed all expectations resulting in a “state-of-the-art” textbook. I feel privileged to have had the opportunity to work closely with such a talented group of individuals.

I also want to thank my co-editor of the first two editions, Dr. Barry Dale. Without his support, guidance, and editorial skills neither would have ever seen the light of day. The knowledge he bestowed on me during our previous collaboration has guided me through this edition. I also want to extend a special thank you to Dr. Gordon J. Christensen, who, for the third time, has honored the book by authoring the foreword.

Despite advances in technology, the need for the assistance of a seasoned editorial staff has never been greater. Elsevier has again provided me with such guidance, in particular Courtney Sprehe, my Senior Content Development Specialist, Linda Wood, my freelance Content Development Specialist, and Marquita Parker, Senior Project Manager. I also wish to thank Kathy Falk, my executive content strategist, and John Dolan for agreeing to undertake this third edition. Elsevier’s continued support of the project, the staff’s high degree of professionalism, and the positive attitude they conveyed made this arduous task easier. I would also like to thank Elsevier’s design and production departments, who transformed a manuscript and some photographs into a true work of art.

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I also owe much to my colleagues at the New York University College of Dentistry International Esthetics Program for their continued support and guidance. A special note of gratitude goes to Dr. Steven David, Dr. Richard Trushkowsky, Dr. Anabella Oquendo, Dr. Louis Brea, and Larry Passaro and all the student colleagues that I have had the privilege to teach. My informal dental discussions with them provided me with many pearls of wisdom that were included in the book.

Finally, I wish to thank my wife, Susan, and my children, Sara and Joshua. When I began the first edition, my children were infants. During production of the second edition they were in middle school, and as I complete this edition they have graduated from college and embarked on careers of their own. They have all always provided me with unwavering love, encouragement, guidance, and moral support that ensured that this book would be successful.

I hope it has succeeded in clearly and comprehensively discussing the state of esthetic dentistry today and perhaps it will lay a basic framework for the esthetic dentist of tomorrow.

**Kenneth W. Aschheim, DDS**

Part 1

Troubleshooting  
Troubleshooting Guide

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	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Porcelain laminate veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Eating disorders	Ch 29 Esthetic Dentistry and Eating Disorders
<b>Extruded tooth</b>	Cosmetic recontouring	Ch 2 Fundamentals of Esthetics and Smile Analysis
	Ceramometal restoration (possibly combined with endodontic and periodontal therapy)	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	Indirect composite resin restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations

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Problem	Solution	Chapter Number and Title
<b>Tooth-Related Problems</b>		
<b>Extruded tooth—cont'd</b>	All-porcelain restoration (possibly combined with endodontic and periodontal therapy)	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Porcelain laminate veneer (sufficient tooth structure must be present)	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Gingival recontouring—surgical (if necessary)	Ch 14 Esthetics and Periodontics
	Gingival recontouring—laser surgery (if necessary)	Ch 21 Esthetics and Laser Surgery
	Gingival grafting (if accompanied by recession)	Ch 14 Esthetics and Periodontics
	Artificial gingiva (if accompanied by recession) (pink porcelain)	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations Ch 7 Porcelain Laminate Veneers Restorations Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Orthodontic therapy	Ch 15 Esthetics and Orthodontics
	Orthognathic surgery	Ch 18 Esthetics and Oral and Maxillofacial Surgery
	Cosmetic recontouring	Ch 2 Fundamentals of Esthetics and Smile Analysis
<b>Feminine teeth—excessive</b>	Cosmetic recontouring	Ch 2 Fundamentals of Esthetics and Smile Analysis
<b>Fractured tooth</b>	Direct composite resin restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Indirect composite resin restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Porcelain laminate veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining

Problem	Solution	Chapter Number and Title
<b>Tooth-Related Problems</b>		
<b>Fractured tooth-cont'd</b>	Cosmetic recontouring	Ch 2 Fundamentals of Esthetics and Smile Analysis
	Domestic violence	Ch 30 Esthetic Dentistry and Domestic Violence
<b>Large tooth</b>	Direct composite resin restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Indirect composite resin restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Direct composite resin restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 12 Esthetic Dentistry and Luting Agents
	Porcelain laminate veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
<b>Long tooth</b>	Cosmetic recontouring	Ch 2 Fundamentals of Esthetics and Smile Analysis
	Direct composite resin restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Indirect composite resin restoration (possibly combined with endodontic and periodontal therapy)	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration (possibly combined with endodontic and periodontal therapy)	Ch 9 Ceramometal: Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restoration (possibly combined with endodontic and periodontal therapy)	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Porcelain laminate veneer (possibly combined with endodontic and periodontal therapy) (sufficient tooth structure must be present)	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining

Problem	Solution	Chapter Number and Title
<b>Tooth-Related Problems</b>		
<b>Long tooth—cont'd</b>	Artificial gingiva (pink porcelain)	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations Ch 7 Porcelain Laminate Veneers Restorations Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Orthodontic therapy	Ch 15 Esthetics and Orthodontics
	Orthognathic surgery	Ch 18 Esthetics and Oral and Maxillofacial Surgery
<b>Malformed teeth—mild</b>	Cosmetic recontouring	Ch 2 Fundamentals of Esthetics and Smile Analysis
	Direct composite resin restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Indirect composite resin restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Porcelain laminate veneers	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
<b>Malformed teeth—severe</b>	Direct composite resin restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Indirect composite resin restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining

Problem	Solution	Chapter Number and Title
<b>Tooth-Related Problems</b>		
<b>Malformed teeth— severe-cont'd</b>	Porcelain laminate veneers	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
<b>Masculine teeth— excessive</b>	Cosmetic recontouring	Ch 2 Fundamentals of Esthetics and Smile Analysis
<b>Narrow tooth</b>	Cosmetic recontouring	Ch 2 Fundamentals of Esthetics and Smile Analysis
	Direct composite resin restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Indirect composite resin restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Porcelain laminate veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
<b>Peg lateral incisor</b>	Direct composite resin restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Indirect composite resin restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Porcelain laminate veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining

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Problem	Solution	Chapter Number and Title
<b>Tooth-Related Problems</b>		
<b>Short tooth</b>	Cosmetic recontouring	Ch 2 Fundamentals of Esthetics and Smile Analysis
	Direct composite resin restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Indirect composite resin restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Porcelain laminate veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Gingival recontouring—surgical	Ch 14 Esthetics and Periodontics
	Gingival recontouring—laser surgery	Ch 21 Esthetics and Laser Surgery
<b>Small tooth</b>	Direct composite resin restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 12 Esthetic Dentistry and Luting Agents
	Indirect composite resin restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Porcelain laminate veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Gingival recontouring—surgical	Ch 14 Esthetics and Periodontics
	Gingival recontouring—surgical	Ch 21 Esthetics and Laser Surgery

Problem	Solution	Chapter Number and Title
<b>Tooth-Related Problems</b>		
<b>Wide tooth</b>	Cosmetic recontouring	Ch 2 Fundamentals of Esthetics and Smile Analysis
	Direct composite resin restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Indirect composite resin restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Porcelain laminate veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
<i>Position Problems</i>		
<b>Anterior flared teeth—major</b>	Orthodontic therapy	Ch 15 Esthetics and Orthodontics
<b>Anterior flared teeth—minor</b>	Direct composite resin restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Indirect composite resin restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Porcelain laminate veneers	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Orthodontic therapy	Ch 15 Esthetics and Orthodontics

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Problem	Solution	Chapter Number and Title
<b>Tooth-Related Problems</b>		
<b>Crowding</b>	Cosmetic recontouring	Ch 2 Fundamentals of Esthetics and Smile Analysis
	Direct composite resin restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Indirect composite resin restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems
	Porcelain laminate veneers	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Orthodontic therapy	Ch 15 Esthetics and Orthodontics
<b>Diastemata</b>	Direct composite resin restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Indirect composite resin restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	All-porcelain restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Porcelain laminate veneers	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Orthodontic therapy	Ch 15 Esthetics and Orthodontics



Problem	Solution	Chapter Number and Title
<b>Tooth-Related Problems</b>		
<b>Excessive spacing</b>	Direct composite resin restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Indirect composite resin restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Porcelain laminate veneers	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Orthodontic therapy	Ch 15 Esthetics and Orthodontics
<b>Extruded tooth</b>	Cosmetic recontouring	Ch 2 Fundamentals of Esthetics and Smile Analysis
	Indirect composite resin restoration (possibly combined with endodontic and periodontal therapy)	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration (possibly combined with endodontic and periodontal therapy)	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restoration (possibly combined with endodontic and periodontal therapy)	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Porcelain laminate veneer (possibly combined with endodontic and periodontal therapy) (sufficient tooth structure must be present)	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Gingival recontouring (if necessary)	Ch 14 Esthetics and Periodontics
	Cosmetic recontouring	Ch 21 Esthetics and Laser Surgery
	Gingival grafting (if accompanied by recession)	Ch 14 Esthetics and Periodontics

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Problem	Solution	Chapter Number and Title
<b>Tooth-Related Problems</b>		
<b>Extruded tooth-cont'd</b>	Artificial gingiva (if accompanied by recession) (pink porcelain)	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Orthodontic therapy	Ch 15 Esthetics and Orthodontics
	Orthognathic surgery	Ch 18 Esthetics and Oral and Maxillofacial Surgery
<b>Generalized spacing</b>	Direct composite resin restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Indirect composite resin restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration	Ch 9 Ceramometal—Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Porcelain laminate veneers	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Orthodontic therapy	Ch 15 Esthetics and Orthodontics
<b>High smile line</b>	Cosmetic recontouring	Ch 2 Fundamentals of Esthetics and Smile Analysis
	Gingival recontouring (if necessary)	Ch 14 Esthetics and Periodontics
	Gingival recontouring—laser surgery (if necessary)	Ch 21 Esthetics and Laser Surgery
	Gingival grafting (if accompanied by recession)	Ch 15 Esthetics and Orthodontics
	Orthognathic surgery	Ch 18 Esthetics and Esthetics and Oral and Maxillofacial Surgery
	Artificial gingiva (if accompanied by recession) (pink porcelain)	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations Ch 7 Porcelain Laminate Veneers Restorations Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining

Problem	Solution	Chapter Number and Title
<b>Tooth-Related Problems</b>		
<b>Long tooth</b>	Cosmetic recontouring	Ch 2 Fundamentals of Esthetics and Smile Analysis
	Direct composite resin restoration (if necessary following tooth reduction)	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Indirect composite resin restoration (if necessary following tooth reduction)	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration (if necessary following tooth reduction)	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restorations (if necessary following tooth reduction)	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Porcelain laminate veneer (if necessary following tooth reduction)	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Gingival augmentation (with restoration if necessary)	Ch 14 Esthetics and Periodontics Ch 18 Esthetics and Oral and Maxillofacial Surgery
	Orthodontic therapy	Ch 15 Esthetics and Orthodontics
Orthognathic surgery (repositioning only)	Ch 18 Esthetics and Oral and Maxillofacial Surgery	
<b>Midline disharmony</b>	Cosmetic recontouring	Ch 2 Fundamentals of Esthetics and Smile Analysis
	Direct composite resin veneers	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Indirect composite resin veneers	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Porcelain laminate veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
Orthodontic therapy	Ch 15 Esthetics and Orthodontics	

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Problem	Solution	Chapter Number and Title
<b>Tooth-Related Problems</b>		
<b>Migrated teeth</b>	Orthodontic therapy	Ch 15 Esthetics and Orthodontics
<b>Multiple diastemata</b>	Direct composite resin restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Indirect composite resin restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Porcelain laminate veneers	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Orthodontic therapy	Ch 15 Esthetics and Orthodontics
<b>Open bite—mild</b>	Direct composite resin restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 12 Esthetic Dentistry and Luting Agents
	Indirect composite resin restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	Porcelain laminate veneers	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Orthodontic therapy	Ch 15 Esthetics and Orthodontics
<b>Open bite—severe</b>	Orthodontic therapy	Ch 15 Esthetics and Orthodontics
	Orthognathic surgery	Ch 18 Esthetics and Oral and Maxillofacial Surgery
<b>Overbite/overjet</b>	Orthodontic therapy	Ch 15 Esthetics and Orthodontics
	Orthognathic surgery	Ch 18 Esthetics and Oral and Maxillofacial Surgery
<b>Spacing</b>	Direct composite resin restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations

Problem	Solution	Chapter Number and Title
<b>Tooth-Related Problems</b>		
<b>Spacing-cont'd</b>	Indirect composite resin restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Porcelain laminate veneer	Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Orthodontic therapy	Ch 15 Esthetics and Orthodontics
<b>Traumatic injury—luxation</b>	Temporary splinting	Ch 19 Esthetics and Pediatric Dentistry
	Domestic violence	Ch 30 Esthetic Dentistry and Domestic Violence
<b>Color Problems</b>		
<b>Aged (dark) teeth</b>	Direct composite resin veneers	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Indirect composite resin veneers	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restorations	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Porcelain laminate veneers	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Bleaching	Ch 13 Bleaching and Related Agents

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Problem	Solution	Chapter Number and Title
<b>Color Problems</b>		
<b>Coloration</b>	Direct composite resin veneers	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Indirect composite resin veneers	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Porcelain laminate veneers	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Bleaching	Ch 13 Bleaching and Related Agents
	Prophylaxis (extrinsic stains)	Ch 13 Bleaching and Related Agents
<b>Congenital discoloration</b>	Direct composite resin veneers	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Indirect composite resin veneers	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Porcelain laminate veneers	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Bleaching	Ch 13 Bleaching and Related Agents
<b>Discoloration</b>	Direct composite resin veneers	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Indirect composite resin veneers	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations

Problem	Solution	Chapter Number and Title
<b>Color Problems</b>		
<b>Discoloration-cont'd</b>	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Porcelain laminate veneer	Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Direct composite resin veneers	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Bleaching	Ch 13 Bleaching and Related Agents
	Prophylaxis (extrinsic stains)	Ch 13 Bleaching and Related Agents
<b>Endemic fluorosis</b>	Direct composite resin veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Indirect composite resin veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Porcelain laminate veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Bleaching	Ch 13 Bleaching and Related Agents
<b>Endodontic discoloration</b>	Direct composite resin veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Indirect composite resin veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations

Problem	Solution	Chapter Number and Title
<b>Color Problems</b>		
<b>Endodontic discoloration-cont'd</b>	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	Direct composite resin veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	All-porcelain restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Porcelain laminate veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Bleaching	Ch 13 Bleaching and Related Agents
<b>Fluorosis</b>	Direct composite resin veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Indirect composite resin veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration	Ch 4 Color Modifiers and Opaquers Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	All-porcelain restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Porcelain laminate veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Bleaching	Ch 13 Bleaching and Related Agents



Problem	Solution	Chapter Number and Title
<b>Color Problems</b>		
<b>Staining</b>	Direct composite resin veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Indirect composite resin veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Porcelain laminate veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Bleaching	Ch 13 Bleaching and Related Agents
	Prophylaxis (extrinsic stains)	Ch 13 Bleaching and Related Agents
<b>Tetracycline discoloration</b>	Direct composite resin veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Indirect composite resin veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems
	Porcelain laminate veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Bleaching	Ch 13 Bleaching and Related Agents

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Problem	Solution	Chapter Number and Title
<b>Color Problems</b>		
<b>Tooth color—too dark</b>	Direct composite resin veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Indirect composite resin veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Porcelain laminate veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Bleaching	Ch 13 Bleaching and Related Agents
	Prophylaxis (extrinsic stains)	Ch 13 Bleaching and Related Agents
<b>Tooth color—too light</b>	Direct composite resin veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Indirect composite resin veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Porcelain laminate veneer	Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining

Problem	Solution	Chapter Number and Title
<b>Color Problems</b>		
<b>Traumatic discoloration</b>	Direct composite resin veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Indirect composite resin veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Porcelain laminate veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Bleaching	Ch 13 Bleaching and Related Agents
	Domestic violence	Ch 30 Esthetic Dentistry and Domestic Violence
<b>White spots</b>	Direct composite resin restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Indirect composite resin restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Porcelain laminate veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Bleaching	Ch 13 Bleaching and Related Agents
	Prophylaxis (extrinsic stains)	Ch 13 Bleaching and Related Agents

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Problem	Solution	Chapter Number and Title
<b>Color Problems</b>		
<i>Missing Teeth Problems</i>		
<b>Migrated teeth— multiple</b>	Direct composite resin veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Indirect composite resin veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems
	Porcelain laminate veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Removable prosthesis	Ch 11 Acrylic and Other Resin: Removable Prosthetics
	Implant retained restorations	Ch 17 Esthetics and Implant Prosthetics Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	Orthodontic therapy	Ch 15 Esthetics and Orthodontics
<b>Migrated tooth— single</b>	Direct composite resin restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Indirect composite resin restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Removable prosthesis	Ch 11 Acrylic and Other Resins: Removable Prosthetics
	Implant retained restorations	Ch 17 Esthetics and Implant Prosthetics Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	Orthodontic therapy	Ch 15 Esthetics and Orthodontics

Problem	Solution	Chapter Number and Title
<b>Color Problems</b>		
<b>Multiple missing teeth</b>	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restorations (select cases)	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Removable prosthesis	Ch 11 Acrylic and Other Resins: Removable Prosthetics
	Implant retained restorations	Ch 17 Esthetics and Implant Prosthetics Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	Domestic violence	Ch 30 Esthetic Dentistry and Domestic Violence
<b>Single missing tooth</b>	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	All-porcelain restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Removable prosthesis	Ch 11 Acrylic and Other Resins: Removable Prosthetics
	Implant retained restorations	Ch 17 Esthetics and Implant Prosthetics Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	Domestic violence	Ch 30 Esthetic Dentistry and Domestic Violence
<b>Traumatic injury—avulsion</b>	Temporary splinting	Ch 19 Esthetics and Pediatric Dentistry
	Domestic violence	Ch 30 Esthetic Dentistry and Domestic Violence
<b>Caries</b>		
<b>Carious restoration margins</b>	See Repairs	Ch 4 Color Modifiers and Opaquers
<b>Carious tooth</b>	Direct composite resin restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Indirect composite resin restoration	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Ceramometal restoration	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining

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Problem	Solution	Chapter Number and Title
<b>Color Problems</b>		
<b>Cariou tooth-cont'd</b>	All-porcelain restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems
	Porcelain laminate veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Porcelain laminate veneer	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
<i>Repairs</i>		
<b>Acrylic veneer facing—dislodgment</b>	Acrylic veneer repair	Ch 4 Color Modifiers and Opaquers
<b>Cariou restoration margins</b>	Gingival grafting (if caused by recession)	Ch 14 Esthetics and Periodontics
<b>Porcelain fractures—ceramometal restoration</b>	See repairs	Ch 4 Color Modifiers and Opaquers
	Evaluate restoration margins and contours	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents
	Evaluate restoration margins and contours	Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations
<b>Non-Tooth-Related Problems</b>		
<i>Periodontal Problems</i>		
<b>Gingival asymmetry</b>	Gingival recontouring—surgical (if necessary)	Ch 14 Esthetics and Periodontics
	Gingival recontouring—laser surgery (if necessary)	Ch 21 Esthetics and Laser Surgery
	Artificial gingiva (pink porcelain)	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations Ch 7 Porcelain Laminate Veneers Restorations Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Gingival grafting (if caused by recession)	Ch 14 Esthetics and Periodontics
<b>Gingival hypertrophy</b>	Gingival recontouring—surgical (if necessary)	Ch 14 Esthetics and Periodontics
	Gingival recontouring—laser surgery (if necessary)	Ch 21 Esthetics and Laser Surgery

Problem	Solution	Chapter Number and Title
<b>Non-Tooth-Related Problems</b>		
<b>Gingival inflammation</b>	Evaluate restoration margins and contours	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations Ch 6 Composite Resin: Indirect Technique Restorations
	Evaluate restoration margins and contours	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents
	Evaluate restoration margins and contours	Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations
	Evaluate restoration margins and contours	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems
	Periodontal therapy	Ch 14 Esthetics and Periodontics
	Oral surgery (possibly with restoration—see Long tooth)	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	Evaluate medical status	
<b>Gingival recession</b>	Gingival graft	Ch 14 Esthetics and Periodontics
	Artificial gingiva (pink porcelain)	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations Ch 7 Porcelain Laminate Veneers Restorations Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Frenectomy	Ch 21 Esthetics and Laser Surgery
	Gingival recontouring—laser surgery (if necessary)	Ch 21 Esthetics and Laser Surgery
	Oral surgery (possibly with restoration—see Long tooth)	Ch 18 Esthetics and Oral and Maxillofacial Surgery
	Splinting	Ch 14 Esthetics and Periodontics
	<b>Dermatologic Problems</b>	
<b>Aging</b>	Dermatologic treatment	Ch 24 Esthetics and Dermatologic Pharmaceuticals
	Restore lip support—direct composite resin restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Restore lip support—indirect composite resin restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Restore lip support—ceramometal restorations	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining

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Problem	Solution	Chapter Number and Title
<b>Dermatologic Problems</b>		
<b>Aging-cont'd</b>	Restore lip support—all-porcelain restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems
	Restore lip support—porcelain laminate veneers	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Restore lip support—removable prostheses	Ch 12 Acrylic and Other Resins—Removable Prostheses
	Restore lip support—implant retained restorations	Ch 17 Esthetics and Implant Prosthetics Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	Lip augmentation	Ch 18 Esthetics and Oral and Maxillofacial Surgery
	Skin resurfacing	Ch 18 Esthetics and Oral and Maxillofacial Surgery
<b>Scars</b>	Skin resurfacing	Ch 18 Esthetics and Oral and Maxillofacial Surgery
	Cosmetic skin resurfacing	Ch 21 Esthetics and Laser Surgery
	Plastic surgery	Ch 25 Esthetics and Plastic Surgery
	Domestic violence	Ch 30 Esthetic Dentistry and Domestic Violence
<b>Wrinkles</b>	Dermatologic treatment	Ch 24 Esthetics and Dermatologic Pharmaceuticals
	Restore lip support—direct composite resin restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 5 Composite Resin: Fundamentals and Direct Technique Restorations
	Restore lip support—indirect composite resin restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 6 Composite Resin: Indirect Technique Restorations
	Restore lip support—ceramometal restorations	Ch 9 Ceramometal Full Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining
	Restore lip support—all-porcelain restorations	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 8 Porcelain-Full Coverage and Partial Coverage Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems
	Restore lip support—porcelain laminate veneers	Ch 3 Dentin Bonding Agents Ch 4 Color Modifiers and Opaquers Ch 7 Porcelain Laminate Veneers Restorations Ch 12 Esthetic Dentistry and Luting Agents Ch 23 Esthetics and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Systems Ch App A Custom Staining
	Restore lip support—removable prostheses	Ch 12 Acrylic and Other Resins—Removable Prostheses
	Restore lip support—implant retained restorations	Ch 17 Esthetics and Implant Prosthetics Ch 12 Esthetic Dentistry and Luting Agents Ch App A Custom Staining