Contents

Preface	V
Contributors	ix
Acknowledgments	xi
The future is now	xiii
Section I Caries prevention	
Chapter 1 Prevention: Fluoride and enamel regeneration	3
Chapter 2 Caries-penetrating resin therapy	11
Chapter 3 Identifying patients at risk of caries	19
Section II Diagnosis	
Chapter 4 Intraoral video cameras	29
Chapter 5 Near-infrared transillumination	35
Chapter 6 The Canary System	45
Chapter 7 SoproLife dental caries detection system	55
Chapter 8 Laser fluorescence caries diagnostic device: DIAGNOdent	61
Chapter 9 The surgical microscope for diagnosis and treatment of caries	67
Chapter 10 Conventional diagnostic pitfalls	77

Section III Treatment options and techniques	
Chapter 11 Microbiological aspects of caries treatment	83
Chapter 12 Air abrasion: Background and cavity preparation	99
Chapter 13 Air abrasion technique	107
Chapter 14 Erbium laser physics and tissue interaction	119
Chapter 15 Carbon dioxide lasers (9300 nm)	135
Chapter 16 Dentin regeneration	143
Chapter 17 Ozone therapy	153
Chapter 18 Conventional treatment failures	161
Section IV Future caries diagnosis and management	
Chapter 19 Enamel regeneration	171
Chapter 20 Photobiomodulation	185
Index	197