## Contents

<table>
<thead>
<tr>
<th>Contributors</th>
<th>viii</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preface</td>
<td>x</td>
</tr>
</tbody>
</table>

1. Microbial Perspectives in the Twenty-First Century  
   William Wade  
   3

2. Diagnosis, Epidemiology, and Global Impact of Endodontic Infections  
   Dag Ørstavik  
   12

3. Microbiology of Caries and Dentinal Tubule Infection  
   Robert M. Love  
   22

4. Culture-Based Analysis of Endodontic Infections  
   Gunnar Dahlén  
   40

5. Molecular Analysis of Endodontic Infections  
   José F. Siqueira, Jr, and Isabela N. Rôças  
   68

6. Extraradicular Endodontic Infections  
   Leif Tronstad  
   108

7. Virulence of Endodontic Bacterial Pathogens  
   Christine M. Sedgley  
   130

8. Herpesviruses in Endodontic Pathosis  
   Mohammad Sabeti  
   152

9. Fungi in Endodontic Infections  
   Bilge Hakan Sen and B. Güniz Baksi  
   164

10. Management of Aggressive Head and Neck Infections  
    Domenick P. Coletti and Robert A. Ord  
    195

11. Endodontic Infections and Pain  
    Anibal Diogenes and Ken M. Hargreaves  
    213

12. Systemic Antibiotics in Endodontic Infections  
    J. Craig Baumgartner and John R. Smith  
    225

13. Topical Antimicrobials in Endodontic Therapy  
    Tuomas Waltimo and Matthias Zehnder  
    242

14. Endodontic Infections in Incompletely Developed Teeth  
    George T.-J. Huang  
    261

15. Prognosis in the Treatment of Teeth with Endodontic Infections  
    Shimon Friedman  
    281

16. Endodontic Infections and Systemic Disease  
    Ashraf F. Fouad  
    320

Glossary  
339

Index  
343