

Contents

Section 1: Aspects of Hearing Loss

1. Etiology of Hearing Loss: Implications for Cochlear Implant Performance 3
Timothy J Davis, Kristen L D'Onofrio

Section 2: Assessment of Cochlear Implant Candidacy

2. Assessment of Adult Cochlear Implant Candidacy 15
Robert T Dwyer, René H Gifford
3. Expanding Criteria for Cochlear Implantation 23
René H Gifford
4. Preoperative Imaging in Cochlear Implantation 35
Jennifer Dang, Alex D Sweeney

Section 3: The Cochlear Implant/Surgical Procedures

5. Surgery for Cochlear Implantation: Standard Approach 47
David R Friedmann, Daniel Jethanamest, J Thomas Roland Jr
6. Surgery for Cochlear Implantation—Bilateral Cochlear Implants 55
David R Friedmann, Sean O McMenomey
7. Surgery for Cochlear Implantation—Congenital Anomalies 58
Nicholas L Deep, Brendan P O'Connell, Mai-Lan Ho, John I Lane, Matthew L Carlson
8. Hearing Preservation Cochlear Implantation 83
Robert J Yawn, Alejandro C Rivas
9. Surgery for Cochlear Implantation—Suprameatal Approach 90
Eric Applebaum, Alex D Sweeney, Robert J Yawn, David S Haynes
10. Surgery for Cochlear Implantation—Subtotal Petrosectomy Approach 95
Jacob B Hunter, Brandon Isaacson
11. Revision Cochlear Implantation 106
Matthew G Crowson, Howard W Francis

12. Auditory Brainstem Implants	114
<i>Craig A Buchman, Nedim Durakovic</i>	

13. Electrophysiological Testing for Cochlear Implants and Auditory Brainstem Implants	123
<i>Michelle L Hughes, Shuman He</i>	

Section 4: Results and Outcomes of Cochlear Implantation

14. Outcomes for Children.....	147
<i>Emily Lund, Holly FB Teagle</i>	
15. Outcomes for Adults	165
<i>Kristen L D'Onofrio, Jourdan T Holder</i>	
16. Combined Electric and Acoustic Stimulation (EAS) and Electric Complementation (EC): Considerations for Candidacy, Fitting, and Long-Term Audiological Management	177
<i>Artur Lorens</i>	
17. Music Perception in Cochlear Implantation.....	191
<i>Kate Gfeller, Virginia D Driscoll</i>	

Section 5: Current Concepts and Future Technology

18. Importance of Scalar Location in Cochlear Implant Surgery	201
<i>George B Wanna, Brendan P O'Connell, Matthew L Carlson</i>	
19. Drug-Eluting Electrodes and the Next-Generation Electrodes	207
<i>Adrien A Eshraghi, Christopher A O'Toole</i>	
20. Future of Intraoperative Electrophysiologic Testing in CI Surgery	218
<i>Michael S Harris, William Jason Riggs, Oliver F Adunka</i>	
21. Cost-Effectiveness in Cochlear Implantation	228
<i>Nicolas-George Katsantonis, Jacob B Hunter, Marc L Bennett*</i>	
22. Cochlear Implant Device Reliability Reporting	237
<i>P Cody Buchanan, Cedric Navarro, Douglas D Backous*</i>	
Index.....	243