

# Table of Contents

<b>1</b>	<b>Introduction.....</b>	<b>1</b>
	<i>F. Müller, S. Barter</i>	
<b>2</b>	<b>Implant Treatment in Old Age: Literature Review.....</b>	<b>3</b>
	<i>S. Barter, F. Müller</i>	
<b>3</b>	<b>Aging: a Biological, Social, and Economic Challenge .....</b>	<b>13</b>
	<i>F. Müller</i>	
<b>4</b>	<b>The Benefits of Implant-supported Prostheses in the Elderly Patient.....</b>	<b>25</b>
	<i>F. Müller</i>	
<b>5</b>	<b>Medical Considerations for Dental Implant Therapy in the Elderly Patient .</b>	<b>35</b>
	<i>S. Barter</i>	
<b>5.1</b>	<b>Introduction .....</b>	<b>36</b>
5.1.1	Aging and Multimorbidity .....	37
5.1.2	Polypharmacy.....	40
5.1.3	Frailty .....	44
5.1.4	Taking the Patient's Medical History .....	45
<b>5.2</b>	<b>Cardiovascular System .....</b>	<b>47</b>
5.2.1	Age-related Changes.....	47
5.2.2	Treatment Considerations .....	48
5.2.3	Pharmacological Considerations.....	49

5.3 Hematological System.....	53
5.3.1 Age-related Changes.....	53
5.3.2 Treatment Considerations .....	55
5.3.3 Pharmacological Considerations.....	56
5.4 Hematopoietic System .....	57
5.4.1 Age-related Changes.....	57
5.4.2 Treatment Considerations .....	58
5.5 Respiratory System.....	59
5.5.1 Age-related Changes.....	59
5.5.2 Treatment Considerations .....	59
5.5.3 Pharmacological Considerations.....	60
5.6 Alimentary System .....	61
5.6.1 Treatment Considerations .....	64
5.6.2 Pharmacological Considerations.....	65
5.7 Hepatobiliary System .....	66
5.8 Renal System.....	67
5.8.1 Age-related Changes.....	67
5.8.2 Treatment Considerations .....	68
5.8.3 Pharmacological Considerations.....	69
5.9 Endocrine System.....	70
5.9.1 Age-related Changes.....	70
5.9.2 Pharmacological Considerations.....	72
5.10 Musculoskeletal System .....	73
5.10.1 Age-related Changes.....	73
5.10.2 Treatment Considerations .....	78
5.10.3 Pharmacological Considerations.....	81
5.11 Neurosensory System.....	83
5.11.1 Age-related Changes.....	83
5.11.2 Treatment Considerations .....	85
5.11.3 Pharmacological Considerations.....	86
5.12 Cancer .....	87
5.12.1 Osteoradionecrosis.....	87
5.13 Conclusions .....	90
<b>6 Features of Removable Prostheses for the Old .....</b>	<b>91</b>
<i>F. Müller</i>	

7	Implants and Partial-denture Design.....	105
	<i>F. Müller</i>	
8	Implant-supported Overdentures for the Edentulous Patient .....	115
	<i>F. Müller</i>	
9	Surgical Considerations in the Aging Patient.....	133
	<i>S. Barter</i>	
10	Oral Hygiene in Geriatric Implant Patients .....	145
	<i>F. Müller</i>	
11	The Ailing Patient.....	155
	<i>F. Müller</i>	
12	Management of Technical and Biological Complications .....	163
	<i>S. Barter</i>	
13	Clinical Case Presentations.....	173
13.1	Improving an Existing Implant-supported Denture in an Alzheimer Patient with Bipolar Affective Disorder with Moderate Depression and Dementia.....	174
	<i>U. Webersberger</i>	
13.2	Maxillary Complete Denture and Mandibular Overdenture on Two Implants with Universal Design.....	178
	<i>R. Leesungbok</i>	
13.3	Improving a Centenarian's Quality of Life .....	187
	<i>M. Schimmel</i>	
13.4	Oral Rehabilitation of an Elderly Edentulous Patient with Osteoarthritis Using an Implant-supported Mandibular Prosthesis with Locator Abutments.....	192
	<i>G. McKenna</i>	
13.5	Maxillary Implant-supported Full-arch Removable Dental Prostheses for a Geriatric Patient: Sequencing the Treatment for an Optimal Outcome.....	197
	<i>A. Dickinson</i>	
13.6	Mandibular Overdenture Supported by a CAD/CAM-milled Bar with Long Distal Extensions on Two Conventionally Loaded Implants.....	205
	<i>M. Srinivasan</i>	

13.7 Flapless Guided Surgery: Bar-supported Overdenture on Four Implants.....	217
<i>R. J. Renting</i>	
13.8 Prosthodontic Solution for Two Angulated 6-mm Implants Supporting a Removable Partial Denture in a 74-year-old Patient.....	224
<i>U. Webersberger</i>	
13.9 Rehabilitation of a Mandibular Distal Extension Situation in a 89-year-old Patient with an Implant-supported Fixed Dental Prosthesis.....	230
<i>D. Buser</i>	
13.10 Minimally Invasive Treatment of a Patient in Her Nineties After Removing Implants Affected by Severe Peri-implantitis .....	237
<i>M. Rocuzzo</i>	
13.11 Implant-retained Rehabilitation after Mandibular Rim Resection.....	243
<i>S. Shahdad</i>	
13.12 Four Immediately Loaded Mini-implants Supporting a Mandibular Overdenture .....	250
<i>S. Esfandiari</i>	
<b>14 Conclusions.....</b>	<b>255</b>
<i>S. Barter, F. Müller</i>	
<b>15 References .....</b>	<b>259</b>