

Contents

Contributing authors	ix
Preface	xi
Acknowledgements	xiii

PART I Introduction

1 Historical perspective	3
<i>Nathan Efron</i>	
2 The anterior eye	10
<i>John G. Lawrenson</i>	
3 Visual optics	30
<i>W. Neil Charman</i>	
4 Clinical instruments	47
<i>Lyndon W. Jones and Sruthi Srinivasan</i>	

PART II Soft contact lenses

5 Soft lens materials	67
<i>Carole Maldonado-Codina</i>	
6 Soft lens manufacture	86
<i>Nathan Efron and Steve Newman</i>	
7 Soft lens optics	93
<i>W. Neil Charman</i>	
8 Soft lens measurement	100
<i>Sudi Patel</i>	
9 Soft lens design and fitting	109
<i>Graeme Young</i>	
10 Soft toric lens design and fitting	119
<i>Richard Lindsay</i>	
11 Soft lens care systems	128
<i>Philip B. Morgan</i>	

PART III Rigid contact lenses

12 Rigid lens materials	145
<i>Brian J. Tighe</i>	
13 Rigid lens manufacture	154
<i>Nathan Efron and Steve Newman</i>	
14 Rigid lens optics	162
<i>W. Neil Charman</i>	
15 Rigid lens measurement	168
<i>Sudi Patel</i>	
16 Rigid lens design and fitting	176
<i>Graeme Young</i>	

17 Rigid toric lens design and fitting 190
Richard Lindsay

18 Rigid lens care systems 197
Philip B. Morgan

PART IV Lens replacement modalities

19 Unplanned lens replacement 203
Nathan Efron

20 Daily soft lens replacement 209
Nathan Efron

21 Planned soft lens replacement 217
Joe Tanner

22 Planned rigid lens replacement 225
Craig A. Woods

PART V Special lenses and fitting considerations

23 Scleral lenses 233
Kenneth W. Pullum

24 Tinted lenses 243
Nathan Efron and Suzanne Efron

25 Presbyopia 252
John Meyler

26 Continuous wear 266
Noel A. Brennan and M.-L. Chantal Coles

27 Sport 281
Nathan Efron

28 Keratoconus 287
Karla Zadnik and Joseph T. Barr

29 High ametropia 298
Joseph T. Barr

30 Paediatric fitting 303
Cindy Tromans

31 Therapeutic applications 310
Roger J. Buckley

32 Post-refractive surgery 317
Patrick J. Caroline

33 Post-keratoplasty 322
Barry A. Weissman

34 Orthokeratology 332
Leo G. Carney

35 Diabetes 339
Clare O'Donnell

PART VI Patient examination and management

36 History taking 347
Keith H. Edwards

37 Preliminary examination 352
Adrian S. Bruce

38 Patient education 361
Sarah L. Morgan

39 Aftercare 369
Loretta B. Szczotka-Flynn and Nathan Efron

40 Complications 388
Nathan Efron

41 Digital imaging 416
Adrian S. Bruce and Milton M. Hom

42 Compliance 427
Nathan Efron

43 Practice management 433
Nizar K. Hirji

Appendices

A Contact lens design and specifications 444

B Contact lens tolerances 445

C Vertex distance correction 446

D Corneal curvature - corneal power conversion 448

E Extended keratometer range conversion 450

F Soft lens average thickness 452

G Soft lens oxygen performance 453

H Constant edge clearance rigid lens designs 455

I Soft toric lens misalignment demonstrator 456

J Dry eye questionnaire 457

K Efron grading scales for contact lens complications 459

Index 463