

Table of Contents

Preface		xvii
Video Index		xxvii
Section 1	Primary Total Hip Arthroplasty	
1	Primary Total Hip Arthroplasty: Posterolateral Approach and Extensile Methods <i>Matthew P. Abdel, MD</i>	3
 2	Primary Total Hip Arthroplasty: Anterolateral and Direct Lateral Approaches <i>Tad M. Mabry, MD</i> <i>David G. Lewallen, MD</i>	13
3	Total Hip Arthroplasty: The Modern Posterior Approach <i>Thomas P. Vail, MD</i> <i>Jonathan L. Berliner, MD</i> <i>Patrick K. Horst, MD</i>	21
4	Primary Total Hip Arthroplasty Through the Direct Anterior Approach on a Standard Surgical Table <i>Peter Pyrko, MD, PhD</i> <i>William Hozack, MD</i>	33
 5	Primary Total Hip Arthroplasty Through the Direct Anterior Approach With the Use of a Specialized Surgical Table <i>William G. Hamilton, MD</i> <i>Zachary D. Weidner, MD</i> <i>Francis B. Gonzales, MD</i>	47
 6	Primary Total Hip Arthroplasty Through the Anterior-Based Muscle-Sparing Approach on a Standard Surgical Table <i>Scott S. Kelley, MD</i> <i>Thorsten M. Seyler, MD, PhD</i> <i>Rhett K. Hallows, MD</i>	61
7	Preoperative Planning and Templating in Total Hip Arthroplasty <i>Kevin L. Garvin, MD</i> <i>Curtis W. Hartman, MD</i>	73
8	Primary Total Hip Arthroplasty With a Cemented Acetabular Implant <i>Chitranjan S. Ranawat, MD</i> <i>Amar S. Ranawat, MD</i> <i>Y. Julia Kao, MD</i>	79
9	Primary Total Hip Arthroplasty With a Noncemented Acetabular Implant <i>James A. Keeney, MD</i>	85
10	Primary Total Hip Arthroplasty With a Cemented Femoral Implant <i>Michael J. Dunbar, MD, FRCSC, PhD</i> <i>Bryan Flynn, MD, FRCSC</i> <i>Thomas Marceau-Cote, MD, FRCSC</i>	91
11	Primary Total Hip Arthroplasty With Extensively Porous-Coated Femoral Implants <i>C. Anderson Engh, Jr, MD</i> <i>Cathy Huynh, BS</i>	101

12	Primary Total Hip Arthroplasty With Double-Tapered, Noncemented Femoral Stems <i>David F. Dalury, MD</i> <i>William A. Jiranek, MD</i> <i>Andrew Waligora, MD</i>	109
13	Parallel-Sided Femoral Stems <i>Christopher Grayson, MD</i> <i>R. Michael Meneghini, MD</i>	119
14	Primary Total Hip Arthroplasty: Modular Stems <i>William P. Barrett, MD</i>	127
15	Primary Total Hip Arthroplasty With Short Stems <i>Adolph V. Lombardi, Jr, MD, FACS</i>	135
 16	Hip Resurfacing Arthroplasty <i>Paul E. Beaulé, MD, FRCSC</i> <i>Alex Pagé, MD, FRCSC</i>	147
17	Bearing Surfaces <i>Joshua J. Jacobs, MD</i> <i>Rishi Balkissoon, MD, MPH</i> <i>Brett R. Levine, MD, MS</i>	155
18	Optimizing Stability and Limb Length <i>C. Anderson Engh, Jr, MD</i>	167
 Section 2 Complex Total Hip Arthroplasty		
19	Total Hip Arthroplasty: Developmental Dysplasia of the Hip <i>Daniel J. Berry, MD</i> <i>Miguel E. Cabanela, MD</i>	179
20	Total Hip Arthroplasty in Patients With High Hip Dislocation <i>James L. Howard, MD, MSc, FRCSC</i>	187
21	Protrusio Acetabuli <i>Michael H. Huo, MD</i> <i>Timothy S. Brown, MD</i> <i>Matthew Landrum, MD</i>	197
22	Total Hip Arthroplasty in Patients With Paget Disease <i>Sharon Walton, MD</i> <i>Richard Iorio, MD</i> <i>Ajit Deshmukh, MD</i>	203
23	Total Hip Arthroplasty After Acetabular Fracture <i>Adam A. Sassoon, MD, MS</i> <i>George J. Haidukewych, MD</i>	209

24	Total Hip Arthroplasty After Hip Fusion Mark J. Spangehl, MD Matthew C. Niesen, MD	215
25	Total Hip Arthroplasty in Patients With Femoral Deformity Joshua L. Carter, MD Bryan D. Springer, MD	227
26	Total Hip Arthroplasty in Patients With Failed Hip Fracture Fixation Daniel A. Oakes, MD Michael D. Stefl, MD	235
27	Total Hip Arthroplasty for Management of Osteonecrosis of the Femoral Head Bernard N. Stulberg, MD	245
28	Management of Metastases and Neoplasms in the Hip Mary I. O'Connor, MD Courtney E. Sherman, MD Cody L. Martin, MD	253
29	Total Hip Arthroplasty in Patients With Inflammatory Arthritis and Other Conditions Affecting Bone Quality Michael E. Berend, MD	267
30	Total Hip Arthroplasty in Obese Patients Michael Bolognesi, MD Alexander R. Vap, MD	275
31	Total Hip Arthroplasty in Patients With Sickle Cell Hemoglobinopathy Gregory G. Polkowski, MD, MSc Adam C. Brekke, MD	285
32	Total Hip Arthroplasty in Patients With Neurologic Conditions Andrew I. Spitzer, MD	293
Section 3	Complications After Total Hip Arthroplasty	
33	Management of Instability After Total Hip Arthroplasty Paul F. Lachiewicz, MD Cameron K. Ledford, MD	307
34	Periprosthetic Joint Infection: Diagnosis and Management Mohammad Ali Enayatollahi, MD Javad Parvizi, MD, FRCS	317
35	Management of the Infected Total Hip Arthroplasty Matthew P. Abdel, MD Arlen D. Hanssen, MD	327

36	Management of Peripheral Nerve and Vascular Injuries Associated With Total Hip Arthroplasty <i>Thomas P. Schmalzried, MD</i> <i>Der-Chen Timothy Huang, MD</i>	335
 37	Management of Periprosthetic Femoral Fractures <i>Nicholas J. Lash, MBChB, FRACS</i> <i>Donald S. Garbuz, MD, FRCSC</i> <i>Bassam A. Masri, MD, FRCSC</i> <i>Clive P. Duncan, MD, MSc, FRCSC</i>	349
38	Management of Fracture of the Greater Trochanter or Deficiency of the Abductor Mechanism After Total Hip Arthroplasty <i>Mathias P. G. Bostrom, MD</i> <i>Liza Osagie-Clouard, MBBS</i>	369
39	Venous Thromboembolic Disease Prophylaxis After Total Hip Arthroplasty <i>Jay R. Lieberman, MD</i> <i>Nathanael Heckmann, MD</i>	379
 Section 4 Revision Total Hip Arthroplasty		
40	Revision Total Hip Arthroplasty: Indications and Contraindications <i>Craig J. Della Valle, MD</i> <i>Erdan Kayupov, MSE</i> <i>Aaron G. Rosenberg, MD</i>	389
41	Revision Total Hip Arthroplasty: Preoperative Planning <i>Jay R. Lieberman, MD</i> <i>Daniel J. Berry, MD</i>	397
42	Surgical Approaches for Revision Total Hip Arthroplasty <i>Nicholas J. Lash, MBChB, FRACS</i> <i>Donald S. Garbuz, MD, FRCSC</i> <i>Bassam A. Masri, MD, FRCSC</i> <i>Clive P. Duncan, MD, MSc, FRCSC</i>	403
43	The Evaluation of Metal-on-Metal Total Hip Arthroplasty <i>Kevin I. Perry, MD</i> <i>Steven J. MacDonald, MD, FRCSC</i>	423
44	Revision of Metal-on-Metal Hip Implants <i>Christopher Pomeroy, MD</i> <i>Thomas K. Fehring, MD</i>	431
45	Taper Corrosion After Total Hip Arthroplasty: Evaluation and Management <i>Michael J. Taunton, MD</i> <i>Derek F. Amanatullah, MD, PhD</i>	437

Acetabulum

- 46 Acetabular Revision: Implant Removal 449
Kevin J. Bozic, MD, MBA
Jonathan L. Berliner, MD
- 47 Acetabular Revision: Overview and Strategy 459
Stuart B. Goodman, MD, PhD, FRCSC, FACS
-  48 Noncemented Acetabular Revision 469
Scott M. Sporer, MD
Brett D. Rosenthal, MD
Barrett Steven Boody, MD
- 49 Polyethylene Liner Exchange for Acetabular Osteolysis 481
Derek F. Amanatullah, MD, PhD
William J. Maloney, MD
-  50 Acetabular Revision: Structural Grafts and Metal Augments 489
Tatu J. Mäkinen, MD, PhD, FEBOT
Kevin Koo, MD, FRCSC
Paul Kuzyk, MD, MASc, FRCSC
Oleg A. Safir, MD, MEd, FRCSC
David Backstein, MD, MEd, FRCSC
Allan E. Gross, MD, FRCSC, O.Ont
- 51 Acetabular Bone Impaction Grafting and Cemented Revision 505
Jean W. M. Gardeniers, MD, PhD, DTHM
Wim H. C. Rijnen, MD, PhD
Tom J. J. H. Slooff, MD, PhD
B. Willem Schreurs, MD, PhD
- 52 Acetabular Revision With Triflange Cups 515
Jason M. Jennings, MD, DPT
Raymond H. Kim, MD
Douglas A. Dennis, MD
- 53 Acetabular Revision With Cup-Cage Constructs 523
James A. Browne, MD
David G. Lewallen, MD
- 54 Pelvic Discontinuity 529
Jeremy M. Gililland, MD
Robert B. Jones, MD
Christopher E. Pelt, MD
Christopher L. Peters, MD

Femur

- 55 Femoral Revision: Overview and Strategy 537
John J. Callaghan, MD
Steve S. Liu, MD

56	Femoral Revision: Implant Removal Charles L. Nelson, MD David H. So, MD	543
57	Femoral Revision With Cemented Stems Rami Madanat, MD, PhD, FEBOT Ola Rolfson, MD, PhD Henrik Malchau, MD, PhD A. J. Timperley, MBChB, FRCS, DPhil (Oxon)	553
58	Femoral Revision With Extensively Porous-Coated Stems Neil Sheth, MD Wayne G. Paprosky, MD	565
59	Proximal Fixation Modular Porous-Coated Proximal Femoral Stems in Revision Hip Arthroplasty Hugh U. Cameron, MBChB, FRCSC	575
60	Femoral Revision With Noncemented Tapered, Fluted Titanium Stems Nemandra A. Sandiford, MSc, FRCS (Tr & Orth) Clive P. Duncan, MD, MSc, FRCSC Bassam A. Masri, MD, FRCSC Donald S. Garbuz, MD, FRCSC	583
61	Femoral Revision With Impaction Bone Grafting and Cement A. J. Timperley, MBChB, FRCS, DPhil (Oxon) Jonathan R. Howell, MBBS, MSc, FRCS (Tr & Orth)	593
 62	Femoral Revision With Allograft Prosthetic Composite Michael D. Ries, MD	601
63	Conversion of Failed Hemiarthroplasty to Total Hip Arthroplasty Michael Tanzer, MD, FRCSC Dylan Tanzer, BSc	611
Section 5	Alternative Reconstruction Procedures	
64	Hip Arthroscopy for the Management of Structural Problems Ryan A. Mlynarek, MD James R. Ross, MD Christopher M. Larson, MD Bryan T. Kelly, MD Asheesh Bedi, MD	625
65	Hip Arthroscopy for the Management of Nonstructural Problems Christopher M. Larson, MD Ryan A. Mlynarek, MD Rebecca M. Stone, MS, ATC Asheesh Bedi, MD	641

66	Pelvic Osteotomies in Patients With Developmental Dysplasia of the Hip <i>Keith A. Fehring, MD</i> <i>Peter K. Sculco, MD</i> <i>Robert T. Trousdale, MD</i> <i>Rafael J. Sierra, MD</i>	655
67	Hip Arthrodesis <i>Stuart L. Weinstein, MD</i> <i>Donald S. Garbuz, MD</i> <i>Clive P. Duncan, MD, MSc, FRCSC</i>	665
68	Intertrochanteric Femoral Osteotomies for the Management of Developmental and Posttraumatic Conditions <i>Richard F. Santore, MD</i>	673
 69	Open Management of Femoroacetabular Impingement <i>Joseph M. Schwab, MD</i> <i>John C. Clohisy, MD</i>	689
70	Management of Early-Stage Osteonecrosis of the Femoral Head <i>Michael Mont, MD</i> <i>Randa Elmallah, MD</i>	699
	Index	711