



AAHKS YAG Comprehensive Arthroplasty Resource Guide for Residents

1.) Online Resources

2.) Online Video Series

3.) Textbooks

4.) In-Person Courses

5.) Research Resources

6.) Topic Based Resources/Relevant Literature:

- **Basics**
 - History and Physical Exam of the Hip
 - History and Physical Exam of the Knee
 - Radiographic Evaluation of the Hip
 - Radiographic Evaluation of the Knee
 - Biomechanics of the Hip
 - Biomechanics of the Knee
 - Nonsurgical Management of Osteoarthritis
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- **Primary Hip Arthroplasty**
 - Indications for THA
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 - Hip Fractures
 - Inflammatory Arthritis
 - Osteonecrosis
 - Post-Traumatic Arthritis
 - Bearing Surfaces Basic Science
 - Acetabular Component
 - Femoral Component
 - Dual Mobility Implants
 - Hip-Spine Relationship
 - Techniques for Primary THA
 - Surgical Approaches for THA
 - Cement in THA
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- Advanced Technologies in THA
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- **Revision Hip Arthroplasty**
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 - Complications
 - Nerve Injury
 - Limb Length Discrepancy
 - Periprosthetic Fractures
 - Adverse Local Tissue Reaction - Metal on Metal
 - Aseptic Loosening After Total Hip Arthroplasty
 - Hip Instability
 - Periprosthetic Joint Infection
 - Polyethylene Wear and Osteolysis
 - Revision Total Hip Arthroplasty Techniques:
 - Component Removal in Revision Total Hip Arthroplasty
 - Acetabular Component Revision
 - Femoral Component Revision
 - Extended Trochanteric Osteotomy
 - PJI Management
 - Soft Tissue Reconstruction
- **Primary Knee Arthroplasty**
 - Surgical Anatomy of the Knee
 - Indications for TKA
 - Osteoarthritis
 - Post Traumatic Arthritis of the Knee
 - Inflammatory Arthritis
 - Kinematic vs Mechanical Alignment
 - Measured Resection vs Gap Balancing
 - Implant Designs Total Knee Arthroplasty
 - Rotational Positioning
 - Coronal and Sagittal Balancing for TKA
 - Extra-articular Deformity
 - Fixation Strategies: Cemented vs Cementless
 - TKA in the Valgus Knee
 - TKA in the Varus Knee
 - Patellar Resurfacing
 - Unicompartamental Knee Arthroplasty
 - Bilateral TKA
 - Functional Outcomes
 - Techniques for Primary TKA
 - Surgical Approaches for TKA
 - Primary TKA
 - Robotic primary TKA
 - TKA with Previous Hardware
- **Revision Knee Arthroplasty**
 - Revision Total Knee Arthroplasty: Evaluation

- Bone Loss in Revision TKA
- Complications
 - Nerve Injury
 - Periprosthetic Fracture
 - Periprosthetic Joint Infections
 - Instability
 - Arthrofibrosis
 - Patellar Maltracking, Instability/Dislocation, Patellar Clunk
 - Extensor Mechanism Disruption
 - Salvage Procedures and Failed Revision Total Knee Arthroplasty
- Revision Total Knee Arthroplasty Techniques
 - Extensile approaches
 - Component removal
 - PJI Management
 - ORIF of Periprosthetic Distal Femur Fracture
 - Hinge Knee Replacement
 - Extensor Mechanism Reconstruction

1.) Online Resources:

- Hip & Knee Book:
 - o <https://hipandkneebook.com/>
- Orthobullets Adult Reconstruction Section:
 - o <https://www.orthobullets.com/topic/dashboard?id=5&specialty=5&expandLeftMenu=true>
- AAOS ROCK – Adult Reconstruction Section:
 - o <https://www.aaos.org/education/resident-orthopaedic-core-knowledge/>
- AAOS Res Study – Adult Reconstruction Question Bank:
 - o <https://www.aaos.org/education/examinations/ResStudy/>
- JBJS Clinical Classroom
 - o <https://jbjspages.jbjs.org>
- Wheelless Textbook of Orthopedics
 - o <https://www.wheelessonline.com/joints/hip/>
 - o <https://www.wheelessonline.com/joints/knee/>
 - o <https://www.wheelessonline.com/arthriti/>
- The Hip and Knee Society Learning SHAK:
 - o <https://ccjr.mclms.net/en/>

2.) Online Video Series :

- Fellows Orthopaedic Continued AAHKS Learning Videos
 - o <https://www.aahks.org/focal/>
- AAOS Orthopaedic Video Theater – Adult Recon Section:
 - o <https://www.aaos.org/education/orthopaedic-video-theater/>
- HSS Orthopaedic Surgical Videos (YouTube)
 - o <https://www.youtube.com/@orthopaedicsurgicalvideos9653>
- NYU Langone Orthopedic Digital Library – Adult Reconstruction Section:
 - o <https://www.ortholibrary.org/coursecategory/adult-reconstruction/>

3.) Textbooks:

- *Orthopaedic Knowledge Update: Hip and Knee Reconstruction*
 - o by Michael A. Mont, MD, Michael Tanzer MD FRCSC
- *Operative Techniques in Joint Reconstruction Surgery Third Edition*
 - o by Edwin P. Su MD, Seth Jerabek MD
- *Campbell's Operative Orthopaedics, 4-Volume Set 15th Edition*
 - o By Frederick M. Azar, MD, Jeffrey R. Sawyer and Thomas W. Throckmorton
- *Illustrated Tips and Tricks in Hip and Knee Reconstructive and Replacement Surgery*
 - o By Daniel J. Berry MD, Mark W. Pagnano, MD
- Basic Orthopaedic Sciences: The Stanmore Guide
 - o By Manoj Ramachandran, Deborah M. Eastwood, Dishan B. Singh, John AM Skinner

4.) In-Person Courses:

- AO Recon Course – Principles of Total Hip and Total Knee Arthroplasty:
 - o <https://www.aofoundation.org/recon/courses/ao-recon-principles-of-total-hip-and-knee-arthroplasty>
- AAHKS Resident Arthroplasty Course:
 - o <https://meeting.aahks.org/aahks-courses/resident-arthroplasty-course/>
- AAOS/Hip Society/Knee Society Comprehensive Resident Total Hip & Knee Course: From Cutting Your Teeth to Cutting Out Implants
 - o <https://www.aaos.org/education/courses/2503253/>

5.) Research Resources:

- JOA Reviewer Mentorship Program
 - <https://www.aahks.org/focal/joa-reviewer-mentorship-program/>

6.) Topic Based Resources/Relevant Literature:

Basics:

- **History and Physical Exam of the Hip**
 - o Videos:
 - Physical Examination of the Hip: <https://www.youtube.com/watch?v=XPqOePfGjaE>
 - o Relevant Literature:
 - Pietrzak JR, MJ Donaldson, B Kayani, and FS Haddad. "Painful total hip arthroplasty." *Orthopaedics and Trauma* 32, no. 1 (2018): 38-44.
- **History and Physical Exam of the Knee**
 - o Videos:
 - Physical Examination Knee: <https://www.youtube.com/watch?v=pquonuCOHms>
 - o Relevant Literature:
 - Flierl MA, AH Sobh, BM Culp, EA Baker, and SM Sporer. "Evaluation of the painful total knee arthroplasty." *JAAOS-Journal of the American Academy of Orthopaedic Surgeons* 27, no. 20 (2019): 743-751.
 - Dennis DA. "Evaluation of painful total knee arthroplasty." *The Journal of arthroplasty* 19.4 (2004): 35-40.
- **Radiographic Evaluation of the Hip**
 - o Websites:

- Sanchez-Sotelo J, RT Trousdale, DJ Berry, and ME Cabanela. "Surgical treatment of developmental dysplasia of the hip in adults: I. Nonarthroplasty options." *JAAOS-Journal of the American Academy of Orthopaedic Surgeons* 10, no. 5 (2002): 321-333.
- Sanchez-Sotelo J, DJ Berry, RT Trousdale, and ME Cabanela. "Surgical treatment of developmental dysplasia of the hip in adults: II. Arthroplasty options." *JAAOS-Journal of the American Academy of Orthopaedic Surgeons* 10, no. 5 (2002): 334-344.
- Rogers BA, S Garbedian, RA Kuchinad, D Backstein, O Safir, and AE Gross. "Total hip arthroplasty for adult hip dysplasia." *JBJS* 94, no. 19 (2012): 1809-1821.
- Greber EM, CE Pelt, JM Gililand, MB Anderson, JA Erickson, and CL Peters. "Challenges in total hip arthroplasty in the setting of developmental dysplasia of the hip." *The Journal of arthroplasty* 32, no. 9 (2017): S38-S44.

○ Hip Fractures

■ Relevant Literature:

- Stirton JB, JC Maier, and S Nandi. "Total hip arthroplasty for the management of hip fracture: A review of the literature." *Journal of orthopaedics* 16, no. 2 (2019): 141-144.
- Health Investigators. "Total hip arthroplasty or hemiarthroplasty for hip fracture." *New England Journal of Medicine* 381, no. 23 (2019): 2199-2208.
- Le Manach Y, G Collins, M Bhandari, A Bessissow, J Boddaert, F Khiami, H Chaudhry, J De Beer, B Riou, P Landais, M Winemaker, T Boudegmaghe, and PJ Devereaux. "Outcomes after hip fracture surgery compared with elective total hip replacement." *Jama* 314, no. 11 (2015): 1159-1166.
- Coomber R, M Porteous, MJ Hubble, and MJ Parker. "Total hip replacement for hip fracture: Surgical techniques and concepts." *Injury* 47, no. 10 (2016): 2060-2064.

○ Inflammatory Arthritis

■ Relevant Literature:

- Goodman SM, BD Springer, AF Chen, M Davis, DR Fernandez, M Figgie, H Finlayson, et al. "2022 American College of Rheumatology/American Association of Hip and Knee Surgeons guideline for the perioperative management of antirheumatic medication in patients with rheumatic diseases undergoing elective total hip or total knee arthroplasty." *The Journal of Arthroplasty* 37, no. 9 (2022): 1676-1683.
- Ravi B, R Croxford, S Hollands, JM Paterson, E Bogoch, H Kreder, and GA Hawker. "Increased risk of complication following total joint arthroplasty in patients with rheumatoid arthritis." *Arthritis & Rheumatology* 66, no. 2 (2014): 254-263.

○ Osteonecrosis

■ Relevant Literature:

- Banerjee S, K Issa, R Pivec, BH Kapadia, HS Khanuja, and MA Mont. "Osteonecrosis of the hip: treatment options and outcomes" *Orthopedic Clinics* 44, no. 4 (2013): 463-476.
- **Post-Traumatic Arthritis**
 - Relevant Literature:
 - O’Driscoll CS, MS Davey, AJ Hughes, JM O’Byrne, M Leonard, and BJ O’Daly. "Total Hip Arthroplasty in the Setting of Post-Traumatic Arthritis Following Acetabular Fracture: A Systematic Review" *Arthroplasty Today* 19 (2023): 101078.
- **Bearing Surfaces Basic Science**
 - Relevant Literature:
 - Zagra L and E Gallazzi. "Bearing surfaces in primary total hip arthroplasty." *EFORT open reviews* 3, no. 5 (2018): 217-224.
- **Acetabular Component**
 - Overview:
 - "THA Acetabular Screw Fixation" *Orthobullets*. <https://www.orthobullets.com/recon/5029/tha-acetabular-screw-fixation>
 - "Screw Fixation of Acetabular Components" *Wheeless*. <https://www.wheelessonline.com/bones/screw-fixation-of-acetabular-components/>
 - Relevant Literature:
 - Gaffey JL, JJ Callaghan, DR Pedersen, DD Goetz, PM Sullivan, and RC Johnston. "Cementless acetabular fixation at fifteen years: a comparison with the same surgeon's results following acetabular fixation with cement." *JBJS* 86, no. 2 (2004): 257-261.
 - Toossi N, B Adeli, AJ Timperley, FS Haddad, M Maltenfort, and J Parvizi. "Acetabular components in total hip arthroplasty: is there evidence that cementless fixation is better?." *JBJS* 95, no. 2 (2013): 168-174.
 - Bhaskar D, A Rajpura, and T Board. "Current concepts in acetabular positioning in total hip arthroplasty." *Indian journal of orthopaedics* 51 (2017): 386-396.
 - Ha YC, JJ Yoo, YK Lee, JY Kim, and KH Koo. "Acetabular component positioning using anatomic landmarks of the acetabulum." *Clinical Orthopaedics and Related Research*® 470 (2012): 3515-3523.
- **Femoral Component**
 - Overview:
 - "STEM: Press-Fit" *Hip and Knee Book*. <https://hipandkneebook.com/new-blog/2017/3/13/stem-press-fit>
 - "Press Fit Femoral Stems" *Wheeless*. <https://www.wheelessonline.com/joints/hip/press-fit-femoral-stems/>
 - "STEM: Cemented" *Hip and Knee Book*. <https://hipandkneebook.com/new-blog/2017/3/13/stem-cemented>
 - "Cemented Femoral Stems" *Wheeless*. <https://www.wheelessonline.com/joints/hip/cemented-femoral-stems/>
 - Relevant Literature:

- Khanuja HS, JJ Vakil, MS. Goddard, and MA Mont. "Cementless femoral fixation in total hip arthroplasty." *JBJS* 93, no. 5 (2011): 500-509.
 - Scannelli JA, GR Reiser, JF Sloboda, and JT Moskal. "Cemented femoral component use in hip arthroplasty." *JAAOS-Journal of the American Academy of Orthopaedic Surgeons* 27, no. 4 (2019): 119-127.
- **Dual Mobility Implants**
 - Relevant literature:
 - Suarez-Ahedo, Carlos et al. "Modern Dual Mobility Implants in Total Hip Arthroplasty: Stability, Survival, and Ion Safety Evaluation: The Comprehensive Review." *JB & JS open access* 10, no. 4 (2025): 25.00141.
 - Reina, Nicolas et al. "Dual-Mobility Constructs in Primary and Revision Total Hip Arthroplasty: A Systematic Review of Comparative Studies." *The Journal of arthroplasty* 34, no. 3 (2019): 594-603.
- **Hip-Spine Relationship**
 - Relevant Literature:
 - Luthringer TA, and JM Vigdorichik. "A preoperative workup of a "hip-spine" total hip arthroplasty patient: a simplified approach to a complex problem." *The Journal of Arthroplasty* 34, no. 7 (2019): S57-S70.
 - Grammatopoulos G, M Innmann, P Phan, R Bodner, and G Meermans. "Spinopelvic challenges in primary total hip arthroplasty." *EFORT Open Reviews* 8, no. 5 (2023): 298-312.
- **Techniques for Primary THA:**
 - **Surgical Approaches for THA**
 - Videos:
 - THA Surgical Approaches: Pros & Cons: <https://www.vumedi.com/video/tha-surgical-approaches-pros-cons/>
 - Anterior Total Hip Arthroplasty Using a Standard Table Technique: <https://www.vumedi.com/video/anterior-total-hip-arthroplasty-using-a-standard-table-technique/>
 - Anterolateral Approach to Total Hip Arthroplasty: <https://www.vumedi.com/video/anterolateral-approach-to-total-hip-arthroplasty-dr-frank-ebert/>
 - Total Hip Arthroplasty using a Posterior Approach <https://www.vumedi.com/video/total-hip-arthroplasty-using-a-posterior-approach/>
 - Relevant Literature:
 - Petis S, JL Howard, BL Lanting, and EM Vasarhelyi. "Surgical approach in primary total hip arthroplasty: anatomy, technique and clinical outcomes." *Canadian Journal of Surgery* 58, no. 2 (2015): 128.
 - **Cement in THA**
 - Relevant Literature:
 - Blankstein M, B Lentine, and NJ Nelms. "The use of cement in hip arthroplasty: a contemporary perspective." *JAAOS-Journal of the*

American Academy of Orthopaedic Surgeons 28, no. 14 (2020): e586-e594.

- **Conversion THA**
 - Videos:
 - Conversion THA: Tips and Tricks: <https://www.vumedi.com/video/conversion-tha-tips-and-tricks/>
 - Relevant Literature:
 - Baghoolizadeh M, and R Schwarzkopf. "The Lawrence D. Dorr Surgical Techniques & Technologies Award: conversion total hip arthroplasty: is it a primary or revision hip arthroplasty." *The Journal of arthroplasty* 31, no. 9 (2016): 16-21.
 - Douglas SJ, EA Remily, OC Sax, SS Pervaiz, RE Delanois, and AJ Johnson. "How does conversion total hip arthroplasty compare to primary?." *The Journal of Arthroplasty* 36, no. 7 (2021): S155-S159.
- **Advanced Technologies in Primary Total Hip Arthroplasty**
 - Videos:
 - Robotics and Navigation in Total Hip Arthroplasty: Current Debates and Solutions: <https://www.vumedi.com/video/robotics-and-navigation-in-total-hip-arthroplasty-current-debates-and-solutions/>
 - Robotics for the Complex THA: Not Just the Cup Position: <https://www.vumedi.com/video/robotics-for-the-complex-tha-not-just-the-cup-position/>
 - Relevant Literature:
 - Fontalis A, B Kayani, JW Thompson, R Plastow, and FS Haddad. "Robotic total hip arthroplasty: Past, present and future." *Orthopaedics and Trauma* 36, no. 1 (2022): 6-13.
 - Ng N, P Gaston, PM Simpson, GJ Macpherson, JT Patton, and ND Clement. "Robotic arm-assisted versus manual total hip arthroplasty: a systematic review and meta-analysis." *The Bone & Joint Journal* 103, no. 6 (2021): 1009-1020.
- **Survivorship of modern primary THA**
 - Relevant literature
 - Pentland V, Thompson Z, Dayimu A, Demiris N, Bohm E, Campbell D, Lenguerrand E, Fenstad AM, Furnes ON, Hailer N, Hoit G, Kärrholm J, Kristensen TRB, Mäkelä K, Overgaard SR, Paxton E, Prentice H, Ravi B, Reed M, Rolfson O, Varnum C, Viitanen T, Waddell JP, Whitehouse M, Khoshbin A, Atrey A. "Survivorship of modern total hip replacement to 30 years: systematic review, meta-analysis, and extrapolation of global joint registry data." *Lancet* 28, no. 10531 (2026): 855-866.

Revision Hip Arthroplasty:

- **Evaluation and Workup in Revision Total Hip Arthroplasty**
 - Overview:
 - "THA Revision" *Orthobullets*. <https://www.orthobullets.com/recon/5009/tha-revision>

- Relevant Literature:
 - Barrack RL, and RS Burnett. "Preoperative planning for revision total hip arthroplasty." *JBJS* 87, no. 12 (2005): 2800-2811.
- **Complications:**
 - Overview:
 - "THA Complications" *Hip and Knee Book*. <https://hipandkneebook.com/tha-complications-1>
 - **Nerve Injury**
 - Relevant Literature:
 - Hasija R, JJ Kelly, NV Shah, JM Newman, JJ Chan, J Robinson, and AV Maheshwari. "Nerve injuries associated with total hip arthroplasty." *Journal of clinical orthopaedics and trauma* 9, no. 1 (2018): 81-86.
 - **Limb Length Discrepancy**
 - Relevant Literature:
 - Clark CR, HD Huddleston, EP Schoch III, and BJ Thomas. "Leg-length discrepancy after total hip arthroplasty." *JAAOS-Journal of the American Academy of Orthopaedic Surgeons* 14, no. 1 (2006): 38-45.
 - **Periprosthetic Fractures**
 - Overview:
 - "THA Periprosthetic Fracture" *Orthobullets*. <https://www.orthobullets.com/recon/5013/tha-periprosthetic-fracture>
 - Relevant Literature:
 - Davidson D, J Pike, D Garbuz, CP Duncan, and B Masri. "Intraoperative periprosthetic fractures during total hip arthroplasty: evaluation and management." *JBJS* 90, no. 9 (2008): 2000-2012.
 - Haidukewych GJ, J Langford, and F Liporace. "Revision for periprosthetic fractures of the hip and knee." *JBJS* 95, no. 4 (2013): 368-376
 - Pike J, D Davidson, D Garbuz, CP Duncan, PJ O'Brien, and BA Masri. "Principles of treatment for periprosthetic femoral shaft fractures around well-fixed total hip arthroplasty." *JAAOS-Journal of the American Academy of Orthopaedic Surgeons* 17, no. 11 (2009): 677-688.
 - **Adverse Local Tissue Reaction - Metal on Metal**
 - Relevant Literature:
 - Drummond J, T Phong, and F Camdon. "Metal-on-metal hip arthroplasty: a review of adverse reactions and patient management." *Journal of functional biomaterials* 6, no. 3 (2015): 486-499.
 - **Aseptic Loosening After Total Hip Arthroplasty**
 - Overview
 - "Osteolysis & Aseptic Loosening" *Hip and Knee Book*. <https://hipandkneebook.com/tha-complications/2017/3/13/aseptic-loosening>
 - Relevant Literature:

- Cherian JJ, JJ Jauregui, S Banerjee, T Pierce, and MA Mont. "What host factors affect aseptic loosening after THA and TKA?." *Clinical Orthopaedics and Related Research*® 473 (2015): 2700-2709.
 - Anil U, V Singh, and R Schwarzkopf. "Diagnosis and detection of subtle aseptic loosening in total hip arthroplasty." *The Journal of Arthroplasty* 37, no. 8 (2022): 1494-1500.
- **Hip Instability**
 - Relevant Literature:
 - Parvizi J, E Picinic, and PF Sharkey. "Revision total hip arthroplasty for instability: surgical techniques and principles." *JBJS* 90, no. 5 (2008): 1134-1142.
 - Wera GD, NT Ting, M Moric, WG Paprosky, SM Sporer, and CJ Della Valle. "Classification and management of the unstable total hip arthroplasty." *The Journal of arthroplasty* 27, no. 5 (2012): 710-715.
- **Periprosthetic Joint Infection**
 - Overview:
 - Patel, Robin. "Periprosthetic Joint Infection." *The New England journal of medicine* 388, no. 3 (2023): 251-262.
 - Videos:
 - AAOS Guidelines on PJI: An Update
<https://www.vumedi.com/video/aaos-guidelines-on-pji-an-update/>
 - Relevant Literature:
 - Parvizi J, N. Shohat, and T. Gehrke. "Prevention of periprosthetic joint infection: new guidelines." *The bone & joint journal* 99, no. 4_Supple_B (2017): 3-10.
 - Parvizi, Javad, TL Tan, K Goswami, C Higuera, C Della Valle, AF Chen, and N Shohat. "The 2018 definition of periprosthetic hip and knee infection: an evidence-based and validated criteria." *The Journal of arthroplasty* 33, no. 5 (2018): 1309-1314.
- **Polyethylene Wear and Osteolysis**
 - Relevant Literature:
 - Dumbleton JH, MT Manley, and AA Edidin. "A literature review of the association between wear rate and osteolysis in total hip arthroplasty" *Journal of Arthroplasty* 17, no. 5 (2002): 649-661.
- **Revision Total Hip Arthroplasty Techniques:**
 - **Component Removal in Revision Total Hip Arthroplasty**
 - Videos:
 - Strategies for Acetabular Component Removal in Hip Revision Surgery
<https://www.vumedi.com/video/strategies-for-acetabular-component-removal-in-hip-revision-surgery/>
 - Exposure and Component Removal in Revision THA
<https://www.vumedi.com/video/exposure-and-component-removal-in-revision-tha/>
 - Relevant Literature:

- Masri BA, PA Mitchell, and CP Duncan. "Removal of solidly fixed implants during revision hip and knee arthroplasty." *JAAOS-Journal of the American Academy of Orthopaedic Surgeons* 13, no. 1 (2005): 18-27.
- **Acetabular Component Revision**
 - Videos:
 - Cup/Cage Construct for the Management of Pelvic Discontinuity: <https://www.vumedi.com/video/cupcage-construct-for-the-mangement-of-pelvic-discontinuity/>
 - Relevant Literature:
 - Sheth N, CL Nelson, BD Springer, TK Fehring, W Paprosky. "Acetabular Bone Loss in Revision Total Hip Arthroplasty: Evaluation and Management" *JAAOS* 21, no. 10 (2013): 601-612.
 - Fryhofer GW, Sireesh Ramesh, and Neil P. Sheth. "Acetabular reconstruction in revision total hip arthroplasty." *Journal of Clinical Orthopaedics and Trauma* 11, no. 1 (2020): 22-28.
 - Driesman, Adam S., Jaclyn A. Konopka, Oren Feder, Vinay Aggarwal, and Ran Schwarzkopf. "Management Principles of Massive Acetabular Bone Loss in Revision Total Hip Arthroplasty: A Review of the Literature." *Bulletin of the NYU Hospital for Joint Diseases* 81, no. 1 (2023): 4-10.
- **Femoral Component Revision**
 - Book Chapters:
 - Fink, Bernd. "Principles of Femoral Revision." In *Femoral Revision Arthroplasty*, pp. 19-20. Cham: Springer International Publishing, 2022.
 - Videos:
 - Revision THA: Major Femoral Bone Loss: <https://www.vumedi.com/video/revision-tha-major-femoral-bone-loss/>
 - Relevant Literature:
 - Sheth N, CL Nelson, and W Paprosky. "Femoral Bone Loss in Revision Total Hip Arthroplasty: Evaluation and Management" *JAAOS* 21, no. 10 (2013): 601-612.
 - Restrepo C, M Mashadi, J Parvizi, MS Austin, and WJ Hozack. "Modular femoral stems for revision total hip arthroplasty." *Clinical Orthopaedics and Related Research*® 469 (2011): 476-482.
- **Extended Trochanteric Osteotomy**
 - Videos:
 - Extended Trochanteric Osteotomy: A Video-Based Approach: <https://www.vumedi.com/video/extended-trochanteric-osteotomy-a-video-based-approach/>
 - Relevant Literature:
 - Sambandam SN, G Duraisamy, J Chandrasekharan, and V Mounasamy. "Extended trochanteric osteotomy: current concepts review." *European Journal of Orthopaedic Surgery & Traumatology* 26 (2016): 231-245.
 - Meek RM., NV Greidanus, DS Garbuz, Bassam A. Masri, and Clive P. Duncan. "Extended trochanteric osteotomy: planning, surgical technique, and pitfalls." *Instructional Course Lectures* 53 (2004): 119-130.

- Malahias MA, I Gkiatas, NA Selemon, RD Filippis, A Gu, A Greenberg, and PK Sculco. "Outcomes and risk factors of extended trochanteric osteotomy in aseptic revision total hip arthroplasty: a systematic review." *The Journal of Arthroplasty* 35, no. 11 (2020): 3410-3416.

○ PJI Management

■ Videos:

- Single Stage Exchange for PJI of the Hip - Surgical Technique with Clean Phase: <https://www.vumedi.com/video/single-stage-exchange-for-pji-of-the-hip-surgical-technique-with-clean-phase/>
- Two-Stage Treatment of Infected THA: <https://www.vumedi.com/video/two-stage-treatment-of-infected-tha/>

■ Relevant Literature:

- Kuzyk PR, HS Dhotar, A Sternheim, AE Gross, O Safir, and D Backstein. "Two-stage revision arthroplasty for management of chronic periprosthetic hip and knee infection: techniques, controversies, and outcomes." *JAAOS-Journal of the American Academy of Orthopaedic Surgeons* 22, no. 3 (2014): 153-164.
- Grammatopoulos G, B Kendrick, M McNally, NA Athanasou, B Atkins, P McLardy-Smith, A Taylor, and R Gundle. "Outcome following debridement, antibiotics, and implant retention in hip periprosthetic joint infection—an 18-year experience." *The Journal of arthroplasty* 32, no. 7 (2017): 2248-2255.
- Nace J, A Siddiqi, CT Talmo, and AF Chen. "Diagnosis and management of fungal periprosthetic joint infections." *JAAOS-Journal of the American Academy of Orthopaedic Surgeons* 27, no. 18 (2019): e804-e818.
- Chen W, C Klemm, EJ Smith, V Tirumala, L Xiong, and YM Kwon. "Outcomes and risk factors associated with failures of debridement, antibiotics, and implant retention in patients with acute hematogenous periprosthetic joint infection." *Journal of the American Academy of Orthopaedic Surgeons* 29, no. 23 (2021): 1024-1030.
- Fehring, Thomas K et al. "One-Stage Versus Two-Stage Exchange Arthroplasty for Periprosthetic Joint Infection: A Prospective Randomized Trial." *The Journal of bone and joint surgery*, 10.2106 (2026).

○ Soft Tissue Reconstruction

■ Videos:

- Gluteus Maximus Muscle Transfer for the Treatment of Hip Abductor Insufficiency: <https://www.vumedi.com/video/gluteus-maximus-muscle-transfer-for-the-treatment-of-hip-abductor-insufficiency/>
- Reconstruction of the Abductor Mechanism of the Hip: Gluteus Maximus Flap Transfer: <https://www.vumedi.com/video/reconstruction-of-the-abductor-mechanism-of-the-hip-gluteus-maximus-flap-transfer/>

■ Relevant Literature:

- Whiteside LA. "Surgical technique: transfer of the anterior portion of the gluteus maximus muscle for abductor deficiency of the hip." *Clinical Orthopaedics and Related Research*® 470 (2012): 503-510.

- Ricciardi BF, PW Henderson, AS McLawhorn, GH Westrich, MP Bostrom, and LB Gayle. "Gluteus maximus advancement flap procedure for reconstruction of posterior soft tissue deficiency in revision total hip arthroplasty." *Orthopedics* 40, no. 3 (2017): e495-e500.

Primary Knee Arthroplasty:

- **Surgical Anatomy of the Knee**
 - Overview
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 - [Primary Total Knee Replacement: Alignment, Balance and Design - Let's Start With Definitions | Vumedi](#)
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 - Adult Reconstruction Joint Replacement: Robotic TKA
<https://www.vumedi.com/video/adult-reconstruction-joint-replacement-robotic-tka/>
 - Total Knee Replacement Using Imageless Computer-Assisted Navigation:
<https://www.youtube.com/watch?v=xiSbInn4GjU>
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Revision Knee Arthroplasty:

- **Revision Total Knee Arthroplasty: Evaluation**

- Overview:

- [AAOS | Revision Total Knee Arthroplasty: Evaluation](#)
- Revision TKA- Case Based Approach: AAHKS FOCAL [aahkszoom.s3.amazonaws.com/Focal/FOCAL+Session+7+-Rothman_Dr.+Courtney_.mp4](https://s3.amazonaws.com/Focal/FOCAL+Session+7+-Rothman_Dr.+Courtney_.mp4)
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- Videos:

- Evaluation of the painful TKA: <https://www.orthobullets.com/video/view?id=107173>
- Evaluation of the Painful Total Joint Arthroplasty: https://www.youtube.com/watch?v=aSmllm_qBcc&t=513s
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 - Overview:
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aahkszoom.s3.amazonaws.com/Focal/FOCAL+Webinar+3+Wolfstadt%2C+Backstein%2C+Cipriano%2C+Khoshbin.mp4
 - Videos
 - [Periprosthetic Distal Femur Fractures: Tips for Fixation | Vumedi](#)
 - [Femur - MIPO Periprosthetic Femur Shaft Fracture | Vumedi](#)
 - [Making Periprosthetic Fracture Treatment Painless | Vumedi](#)
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○ Periprosthetic Joint Infections

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- [AAOS | Periprosthetic Joint Infection](#)
- [AAOS | Complications After Total Knee Arthroplasty: Periprosthetic Joint Infections](#)

■ Videos:

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○ Instability

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○ Arthrofibrosis

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 - Revision TKA: Exposure and Implant Removal Tips and Techniques:
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<https://www.vumedi.com/video/squirrel-spacers-enduring-balanced-articulating-tka-spacers/>

- Static Spacer: [TKA Static Spacer](#)
 - Antibiotic Spacers in Two-Stage Exchange for Infected TKA: <https://www.vumedi.com/video/two-stage-revision-itk17/>
 - Preparing Antibiotic Cement & TKA Articulating Spacer: <https://www.eacademy.hss.edu/courses/preparing-antibiotic-cement-tka-articulating-spacer>
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- **Extensor Mechanism Reconstruction**
- Videos:
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 - Extensor Mechanism Deficiency: A Marlex Mesh Solution: <https://www.vumedi.com/video/extensor-mechanism-deficiency-a-marlex-mesh-solution-2/>
 - Whole Extensor Mechanism Reconstruction Using Fresh Osteochondral Allograft with Synthetic Graft Augmentation: <https://www.vumedi.com/video/whole-extensor-mechanism-reconstruction-using-fresh-osteochondral-allograft-with-synthetic-graft-aug/>
 - 10 minute Primer: Whole Extensor Allograft Reconstruction in Revision Total Knee Arthroplasty: <https://www.vumedi.com/video/10-minute-primer-whole-extensor-allograft-reconstruction-in-revision-total-knee-arthroplasty/>
 - TKA Extensor Mechanism Reconstruction Marlex Mesh: <https://www.eacademy.hss.edu/courses/tka-extensor-mechanism-reconstruction-marlex-mesh>