

BRIAN M. CULP, MD

Dr. Culp is a fellowship-trained orthopedic surgeon and focuses his practice on patients of all ages who have advanced degenerative disease. He provides special expertise on knee replacement surgery, including minimally invasive partial and total knees, as well as complex revision surgery. He also performs minimally-invasive hip replacement surgery from anterior and posterior approaches, and complex revisions. Dr. Culp additionally offers outpatient joint replacement surgery to the appropriate candidates, performing the procedures at both the UMCP Monroe Surgical Center and the UMCP Surgical Center on the hospital campus in Plainsboro.

Dr. Culp is excited to return to New Jersey where he completed his general surgical internship and his orthopedic surgery residency at UMDNJ Robert Wood Johnson University Hospital. In addition to his practice at Princeton Orthopaedic Associates, Dr. Culp also serves as a member of the Orthopedic Trauma Team at the Regional Medical Center, Capital Health System.

Education

The Ohio State University , Columbus, OH B.S in Molecular Genetics with Honors/Magna cum Laude, minor Spanish	Graduation: June 2006
The Ohio State University College of Medicine , Columbus, OH Doctor of Medicine (MD)	Graduation June 2010
UMDNJ Robert Wood Johnson Univ. Hospital New Brunswick NJ General Surgery Internship	Graduation June 2011
UMDNJ Robert Wood Johnson Univ. Hospital New Brunswick NJ Orthopaedic Surgery Residency	Graduation June 2015
Rush University - Midwest Orthopaedic Surgery Chicago IL Adult Joint Reconstruction Fellowship	Expected Graduation August 2016

Awards

Resident of the Year. Rutgers- Robert Wood Johnson Department of Orthopaedic Surgery. 2012-2013
Resident of the Year. Rutgers- Robert Wood Johnson Department of Orthopaedic Surgery. 2014-2015

Publications

Chong JL, Wenzel PL, Saenz-Robles MT, Nair V, Ferrey A, Hagan JP, Gomez YM, Sharma N, Chen HZ, Ouseph M, Wang SH, Trkha P, **Culp B**, Mezache L, Winton DJ, Sansom OJ, Chen D, Bremner R, Cantalupo PG, Robinson ML, Pipas JM, Leone G. E2f1-3 switch from activators in progenitor cells to repressors in differentiating cells. *Nature*. 2009 Dec 17; 462(7275):930.

Culp B, Hurbanek JG, Novak J, McCamey KL, Flanigan DC. Acute Traumatic Sternum Fracture in a Female College Hockey Player. *Orthopedics*. 2010 Sep 1;33(9):683-685.

Seto A, **Culp BM**, Gatt CJ, Dunn M. Radioprotection provides functional mechanics but delays healing of irradiated tendon allografts after ACL reconstruction of sheep. *Cell and Tissue*. Jul 11 2013.

Erickson, J., **Culp, B.**, Kayiaros, S., Monica, J. Acute Multiple Flexor Tendon Injury and Carpal Tunnel Syndrome following Open Distal Radius Fracture: A Case Report. *Am J Orthopedics*. 2015; 44(11):E458-E460

Merriam AR, Patel JM, **Culp BM**, Gatt CJ, Dunn MG Successful Total Meniscus Reconstruction Using a Novel Fiber Reinforced Scaffold: a 16 and 32 Week Study in an Ovine Model. Am J Sports Med. 2015 Oct;43(10):2528-37

Patel JM, Merriam AR, **Culp BM**, Gatt CJ, Dunn MG. One year outcomes of Total Meniscus Reconstruction Using a Novel Fiber Reinforced Scaffold in an Ovine Model. Am J Sports Med. 44(4):898-907

Book Chapters

Culp B, Baione W, Tria AJ. "Minimally Invasive Approach to Total Knee Arthroplasty". Chapter 16. Pages 190-198. Knee Surgery. editor Ashok Rajgopal. Jaypee Brothers Medical Publishing. Delhi, India. 2014

Baione W, **Culp B** Tria AJ. "Patellar Resurfacing in Total Knee Arthroplasty". Chapter 12. Pages 144-158. Knee Surgery. Editor Ashok Rajgopal. Jaypee Brothers Medical Publishing. Delhi, India. 2014

Culp B, Sershon R, Levine B. Management of Femoral bone loss in THA: Tips and Tricks. Ahead of print

Culp B, Rosenberg AR. Posterior Cruciate Ligament Retention in Total Knee Arthroplasty, Chapter 136: Insall & Scott: SURGERY OF THE KNEE, 6/E- Ahead of print

Presentations

NJ Orthopaedic Society 10/14/2011- Cadaveric Allograft sterilization and effects on graft time zero integrity

NJ Orthopaedic Society 10/19/2012- Radioprotection of allografts in an ovine model

NJ Orthopaedic Society 4/5/2013- Case Report- Dislocation of a distal femoral replacement

*Gatt CJ, Patel JM, Merriam AR, **Culp BM**, Dunn MG. "A Load-Sharing Tissue-Engineered Meniscus Scaffold: One-Year Outcome", Scientific Session Presentation, American Orthopaedic Society for Sports Medicine Annual Meeting. Seattle WA. Jul 2014.*

*Patel JM, Merriam AR, **Culp BM**, Dunn MG, Gatt CJ. "Stiffer Polymer Fiber May Reduce Extrusion and Decrease Peak Contact Stresses Associated With a Fiber-Reinforced Collagen Sponge for Meniscus Replacement", Poster Presentation, Orthopaedic Research Society Annual Meeting. New Orleans LA. Mar 2014.*

*Peterson K, **Culp BM**, Kearns S, Levine B, Della Valle C, Sporrer S. "A Retrospective Review of Rotating Hinge Knee Arthroplasty Outcomes." Mid America Orthopedic Association- Bonita Springs FL, April 2016*

Organizations/roles

AOA Resident Leadership Forum Participant (Emerging Leaders Program)

American Academy of Orthopedic Surgery

American Association of Hip and Knee Surgeons

Jim Craigie Joint Institute- University of Princeton Medical Center

Quality Improvement initiatives – (Robert Wood Johnson Hospital)

Fragility Fracture protocol development and implementation

Promoting knowledge of Compartment syndrome diagnostic tools

Educational Courses given

2016 AAOS arthroplasty resident's course Rosemont IL- course instructor

Arthroplasty specific interest areas

Minimally invasive Anterior approach hip arthroplasty

Minimally invasive Posterior approach hip arthroplasty
Minimally invasive Unicompartmental knee arthroplasty
Minimally invasive Total knee arthroplasty
Patellofemoral resurfacing
Outpatient total joint arthroplasty
Revision hip arthroplasty (Femoral/Acetabular reconstruction)
Revision total knee arthroplasty
Periprosthetic fracture fixation/revision
Periprosthetic joint infection management
Hip Fractures
Lower Extremity Trauma
Metal Allergies