

Harris Orthopaedics Laboratory: Archive Publications

- Madanat R, Hussey DK, Donahue GS, Potter HG, Wallace R, Bragdon C, Muratoglu O, Malchau H. The Symmetry of Adverse Local Tissue Reactions in Patients with Bilateral Simultaneous and Sequential ASR Hip Replacement. *J Arthroplasty*. 30(10):1794-8 (2015 Oct).
- Madanat R, Hussey DK, Donahue GS, Potter HG, Wallace R, Bragdon C, Muratoglu O, Malchau H. Early Lessons from a World-wide, Multicenter, Followup Study of the Recalled Articular Surface Replacement Hip System. *Clin Orthop Relat Res*. 2015 Aug 27 .
- Doshi B, Fu J, Oral E, Muratoglu OK. Vitamin E can be used to hinder scissioning in radiation cross-linked UHMWPE during high-temperature melting. *Journal of Applied Polymer Science* 132: 42735 (1-8) (2015).
- Doshi B, Ghali B, Godleski-Beckos C, Lozynsky A, Oral E, Muratoglu OK. High pressure crystallization of vitamin E-containing radiation cross-linked UHMWPE. *Macromolecular Materials and Engineering* 300: 458-465 (2015).
- Varadarajan KM, Zumbunn T, Duffy MP, Patel R, Rubash HE, Malchau H, Muratoglu K, Freiberg AA. Anatomically Contoured Large Femoral Heads Can Reduce Iliopsoas Impingement: A Cadaver Verification Study. *Seminars in Arthop*. 2015; 26(1): 28-33.
- Varadarajan KM, Zumbunn T, Rubash HE, Malchau H, Muratoglu OK, Li G. Reverse Engineering Nature to Design Biomimetic Total Knee Implants. *J Knee Surg*, 28(5), pp 363-9.
- Zumbunn T, Varadarajan KM, Rubash HE, Malchau H, Li G, Muratoglu OK. Regaining Native Knee Kinematics following Joint Arthroplasty: A Novel Biomimetic Total Knee Arthroplasty with ACL and PCL Preservation. *J Arthroplasty*. 2015.
- Varadarajan KM , Zumbunn T, Rubash HE, Malchau H, Li G, Muratoglu K. Cruciate Retaining Implant with Biomimetic Articular Surfaces to Reproduce Activity Dependent Kinematics of the Normal Knee. *J Arthroplasty*. 2015.
- Varadarajan KM , Zumbunn T, Duffy M, Patel R, Rubash HE, Malchau H, Freiberg AA, Muratoglu K. Reducing the Distal Profile of Dual Mobility Liners Can Mitigate Soft-tissue Impingement and Liner Entrapment without Affecting Mechanical Performance. *J Orthop Res*. 2015.
- Foster SA, Hambright DS, Antoci V, Greene ME, Malchau H, Kwon YM. Effects of Obesity on Health Related Quality of Life Following Total Hip Arthroplasty. *J Arthroplasty*. 2015 Mar 31.
- Oral E, Neils AL, Doshi BN, Fu J, Muratoglu OK. Effects of simulated oxidation on the in vitro wear and mechanical properties of irradiated and melted highly crosslinked UHMWPE. *J Biomed Mater Res B Appl Biomater*. 2015 Mar 12.
- Sillesen NH, Greene ME, Nebergall AK, Nielsen PT, Laursen MB, Troelsen A, Malchau H. Three Year RSA Evaluation of Vitamin E Diffused Highly Cross-linked Polyethylene Liners and Cup Stability. *J Arthroplasty*. 2015 Feb 18.
- Hansen VJ, Gromov K, Lebrun LM, Rubash HE, Malchau H, Freiberg AA. Does the Risk Assessment and Prediction Tool predict discharge disposition after joint replacement? *Clin Orthop Relat Res*. 473(2):597-601 (2015 Feb).
- Malchau H, Graves SE, Porter M, Harris WH, Troelsen A. The next critical role of orthopedic registries. *Acta Orthop*. 86(1):3-4 (2015 Feb).

- Oral E, Neils AL, Wannomae KK, Muratoglu OK. Novel active stabilization technology in highly crosslinked UHMWPEs for superior stability. *Radiat Phys Chem.* 105:6-11 (2014 Dec).
- Greene ME, Rader KA, Garellick G, Malchau H, Freiberg AA, Rolfson O. The EQ-5D-5L Improves on the EQ-5D-3L for Health-related Quality-of-life Assessment in Patients Undergoing Total Hip Arthroplasty. *Clin Orthop Relat Res.* 2014 Dec 9.
- Gromov K, Greene ME, Sillesen NH, Troelsen A, Malchau H, Huddleston JI, Emerson R, Garcia-Cimbrello E, Gebuhr P; Multicenter Writing Committee. Regional differences between US and Europe in radiological osteoarthritis and self assessed quality of life in patients undergoing total hip arthroplasty surgery. *J Arthroplasty.* 29(11):2078-83 (2014 Nov).
- Hansen VJ, Greene ME, Bragdon MA, Nebergall AK, Barr CJ, Huddleston JI, Bragdon CR, Malchau Registries collecting level-I through IV Data: institutional and multicenter use: AAOS exhibit selection. *J Bone Joint Surg Am.* 96(18):e160 (2014 Sep).
- Bichara DA, Malchau E, Sillesen NH, Cakmak S, Nielsen GP, Muratoglu OK. Vitamin E-diffused highly cross-linked UHMWPE particles induce less osteolysis compared to highly cross-linked virgin UHMWPE particles in vivo. *J Arthroplasty.* 29(9 suppl):232-7 (2014 Sep).
- Oral E, Neils A, Muratoglu OK. High vitamin E content, impact resistant UHMWPE blend without loss of wear resistance. *J Biomed Mater Res B Appl Biomater.* 2014 Aug 13 (e-pub ahead of print).
- Bichara DA, Bodugoz-Sentruk H, Ling D, Malchau E, Bragdon CR, Muratoglu OK. Osteochondral defect repair using a polyvinyl alcohol-polyacrylic acid (PVA-PAAc) hydrogel. *Biomedical Materials.* 9(4):045012 (2014 Aug).
- Greene ME, Rolfson O, Nemes S, Gordon M, Malchau H, Garellick G. Education attainment is associated with patient-reported outcomes: findings from the Swedish Hip Arthroplasty Register. *Clin Orthop Relat Res.* 472(6):1868-76 (2014 Jun).
- Goldvasser D, Hansen VJ, Noz ME, Maguire GQ Jr, Zeleznik MP, Olivecrona H, Bragdon CR, Weidenhielm L, Malchau H. In vivo and ex vivo measurement of polyethylene wear in total hip arthroplasty: comparison of measurements using a CT algorithm, a coordinate-measuring machine, and a micrometer. *Acta Orthop.* 85(3):271-5 (2014 Jun).
- Oral E, Neils A, Yabannavar P, Muratoglu OK. The effect of an additional phosphite stabilizer on the properties of radiation cross-linked vitamin E blends of UHMWPE. *J Orthop Res.* 32(6):757-61 (2014 Jun).
- Choi HR, Freiberg AA, Malchau H, Rubash HE, Kwon YM. The fate of unplanned retention of prosthetic articulating spacers for infected total hip and total knee arthroplasty. *J Arthroplasty.* 29(4):690-3 (2014 Apr).
- Choi HR, Anderson D, Foster S, Beal M, Lee JA, Barr C, Malchau H, McCarthy J, Kwon YM. Acetabular cup positioning in revision total hip arthroplasty with Paprosky type III acetabular defects: Martell radiographic analysis. *Int Orthop.* 28(9):1625-33 (2013 Oct).
- Choi HR, Siliski J, Malchau H, Freiberg A, Rubash H, Kwon YM. Comparison of one-stage revision with antibiotic cement versus two-stage revision results for infected total hip arthroplasty. *J Arthroplasty.* 28(8 suppl):66-70 (2013 Sep).
- Troelsen A, Malchau E, Sillesen N, Malchau H. A review of current fixation use and registry outcomes in total hip arthroplasty: the uncemented paradox. *Clin Orthop Relat Res.* 471(7):2052-9 (2013 Jul).

- Choi HR, Kwon YM, Freiberg AA, Nelson SB, Malchau H. Periprosthetic joint infection with negative culture results: clinical characteristics and treatment outcome. *J Arthroplasty*. 28(6):899-903 (2013 Jun).
- Bedair H, Lawless B, Malchau H. Are implant designer series believable? Comparison of survivorship between designer series and national registries. *J Arthroplasty*. 28(5):728-31 (2013 May).
- Davies C, Briggs A, Lorgelly P, Garellick G, Malchau H. The “hazards” of extrapolating survival curves. *Med Decis Making*. 33(3):369-80 (2013 Apr).
- Oral E, Neils AL, Rowell SL, Lozynsky AJ, Muratoglu OK. Increasing irradiation temperature maximizes vitamin E grafting and wear resistance of ultrahigh molecular weight polyethylene. *J Biomed Mater Res B Appl Biomater*. 101(3):436-40 (2013 Apr).
- Bragdon CR, Doerner M, Martell J, Jarrett B, Palm H; Multicenter Study Group, Malchau H. The 2012 John Charnley Award: Clinical multicenter studies of the wear performance of highly crosslinked remelted polyethylene in THA. *Clin Orthop Relat Res*. 471(2):393-402 (2013 Feb).
- Goldvasser D, Marchie A, Bragdon LK, Bragdon CR, Weidenhielm L, Malchau H. Incidence of osteolysis in total knee arthroplasty: comparison between radiographic and retrieval analysis. *J Arthroplasty*. 28(2):201-6 (2013 Feb).
- Macias CE, Bodugöz-Sentürk H, Muratoglu OK. Quantification of PVA hydrogel dissolution in water and bovine serum. *Polymer*. 54(2):724-9 (2013 Jan).
- Fu J, Doshi BN, Oral E, Muratoglu OK. High temperature melted, radiation cross-linked, vitamin E stabilized oxidation resistant UHMWPE with low wear and high impact strength. *Polymer*. 54(1):199-209 (2013 Jan).
- Oral E, Neils AL, Lyons C, Fung M, Doshi B, Muratoglu OK. Surface cross-linked UHMWPE can enable the use of larger femoral heads in total joints. *J Orthop Res*. 31(1):59-66 (2013 Jan).
- Barr CJ, Barbalace RJ, Wessinger SJ, Bragdon CR, Kwon YM, Malchau H. Validation of a hospital-based joint registry: quantification of errors and maximizing utility. *J Arthroplasty*. 27(10):1766-71 (2012 Dec).
- Wright EA, Katz JN, Baron JA, Wright RJ, Malchau H, Mahomed N, Prokopetz JJ, Losina E. Risk factors for revision of primary total hip replacement: results from a national case-control study. *Arthritis Care Res*. 64(12):1879-85 (2012 Dec).
- Katz JN, Wright EA, Wright J, Malchau H, Mahomed NN, Stedman M, Baron JA, Losina E. Twelve-year risk of revision after primary total hip replacement in the U.S. Medicare population. *J Bone Joint Surg Am*. 94(20):1825-32 (2012 Oct).
- Goldvasser D, Noz ME, Maguire GQ Jr, Olivecrona H, Bragdon CR, Malchau H. A new technique for measuring wear in total hip arthroplasty using computed tomography. *J Arthroplasty*. 27(9):1636-40 (2012 Oct).
- Choi HR, Malchau H, Bedair H. Are prosthetic spacers safe to use in 2-stage treatment for infected total knee arthroplasty? *J Arthroplasty*. 27(8):1474-9 (2012 Sep).
- Choi HR, Kwon YM, Burke DW, Rubash HE, Malchau H. The outcome of sequential repeated tibial tubercle osteotomy performed in 2-stage revision arthroplasty for infected total knee arthroplasty. *J Arthroplasty*. 27(8):1487-91 (2012 Sep).

- Choi HR, Burke D, Malchau H, Kwon YM. Utility of tibial tubercle osteotomy in the setting of periprosthetic infection after total knee arthroplasty. *Int Orthop.* 36(8):1609-13 (2012 Aug).
- Bodugöz-Sentürk H, Oral E, Choi J, Macias CE, Muratoglu OK. Molecular weight effect on theta-gel formation in poly(vinyl alcohol)–poly(ethylene glycol) mixtures. *J Appl Polym Sci.* 125(4):2890-5 (2012 Aug).
- Rolfson O, Ström O, Kärrholm J, Malchau H, Garellick G. Costs related to hip disease in patients eligible for total hip arthroplasty. *J Arthroplasty.* 27(7):1261-6 (2012 Aug).
- Beecher B, Glassner P, Malchau H, Kwon YM. A concise minimum eight year follow-up of proximally porous-coated tapered titanium femoral stem in primary total hip arthroplasty. *Int Orthop.* 36(8):1561-5 (2012 Aug).
- Oral E, Ghali BW, Neils A, Muratoglu OK. A new mechanism of oxidation in ultrahigh molecular weight polyethylene caused by squalene absorption. *J Biomed Mater Res B Appl Biomater.* 100(3):742-51 (2012 Apr).
- Oral E, Beckos CG, Muratoglu OK. Homogenization in supercritical carbon dioxide enhances the diffusion of vitamin E in ultrahigh-molecular-weight polyethylene. *J Appl Polym Sci.* 124(1):518-24 (2012 Apr).
- Lawless BM, Greene M, Slover J, Kwon YM, Malchau H. Does age or bilateral disease influence the value of hip arthroplasty? *Clin Orthop Relat Res.* 470(4):1073-8 (2012 Apr).
- Choi HR, von Knoch F, Kandil AO, Zurakowski D, Moore S, Malchau H. Retention treatment after periprosthetic total hip arthroplasty infection. *Int Orthop.* 36(4):723-9 (2012 Apr).
- Nebergall A, Bragdon C, Antonellis A, Kärrholm J, Brånemark R, Malchau H. Stable fixation of an osseointegrated implant system for above-the-knee amputees: title RSA and radiographic evaluation of migration and bone remodeling in 55 cases. *Acta Orthop.* 83(2):121-8 (2012 Apr).
- Choi J, Kung HJ, Macias CE, Muratoglu, OK. Highly lubricious poly(vinyl alcohol)-poly(acrylic acid) hydrogels. *J Biomed Mater Res B Appl Biomater.* 100(2):524-32 (2012 Feb).
- Micheli BR, Wannomae KK, Lozynsky AJ, Christensen SD, Muratoglu OK. Knee simulator wear of vitamin E stabilized irradiated ultrahigh molecular weight polyethylene. *J Arthroplasty.* 27(1):95-104 (2012 Jan).
- Bashyal RK, Malchau H, Nimkin K, Holmes LB. The association of a dysmorphic pelvis, absence of pubic rami, hip dysplasia, and genitourinary anomalies. *Birth Defects Res A Clin Mol Teratol.* 94(1):57-60 (2012 Jan).
- Nelissen RG, Pijls BG, Kärrholm J, Malchau H, Nieuwenhuijse MJ, Valstar ER. RSA and registries: the quest for phased introduction of new implants. *J Bone Joint Surg Am.* 93(3 suppl):62-5 (2011 Dec).
- Malchau H, Bragdon CR, Muratoglu OK. The stepwise introduction of innovation into orthopedic surgery: the next level of dilemmas. *J Arthroplasty.* 36(6):825-31 (2011 Sep).
- Sepucha K, Stacey D, Clay C, Chang Y, Cosenza C, Dervin G, Dorrwachter J, Feibelman S, Katz J, Kearing S, Malchau H, Taljaard M, Tomek I, Tugwell P, Levin C. Decision quality instrument for treatment of hip and knee osteoarthritis: a psychometric evaluation. *BMC Musculoskelet Disord.* 12:149 (2011 Jul).

- Talmo CT, Kwon YM, Freiberg AA, Rubash HE, Malchau H. Management of polyethylene wear associated with a well-fixed modular cementless shell during revision total hip arthroplasty. *J Arthroplasty*. 26(4):576-81 (2011 Jun).
- Rowell SL, Oral E, Muratoglu OK. Comparative oxidative stability of α -tocopherol blended and diffused UHMWPEs at 3 years of real-time aging. *J Orthop Res*. 29(5):773-80 (2011 May).
- Katz JN, Wright EA, Baron JA, Corbett KL, Nti AA, Malchau H, Wright J, Losina E. Predictive value of Medicare claims data for identifying revision of index hip replacement was modest. *J Clin Epidemiol*. 64(5):543-6 (2011 May).
- Oral E, Ghali BW, Muratoglu OK. The elimination of free radicals in irradiated UHMWPEs with and without vitamin E stabilization by annealing under pressure. *J Biomed Mater Res B Appl Biomater*. 97(1):167-74 (2011 Apr).
- Marchie A, Goldvasser D, Oral E, Freiberg AA, Malchau H, Muratoglu OK, Rubash HE. Wear and Osteolysis in Total Knee Arthroplasty. *OKOJ*. 9(4) (2011 Apr).
- Wuerz TH, Regenbogen SE, Ehrenfeld JM, Malchau H, Rubash HE, Gawande AA, Kent DM. The Surgical Apgar Score in hip and knee arthroplasty. *Clin Orthop Relat Res*. 469(4):1119-26 (2011 Apr).
- Choi HR, von Knoch F, Zurakowski D, Nelson SB, Malchau H. Can implant retention be recommended for treatment of infected TKA? *Clin Orthop Relat Res*. 469(4):961-9 (2011 Apr).
- Bichara DA, Zhao X, Bodugöz-Sentürk H, Ballyns FP, Oral E, Randolph MA, Bonassar LJ, Gill TJ, Muratoglu OK. Porous poly(vinyl alcohol)-hydrogel matrix-engineered biosynthetic cartilage. *Tissue Eng Part A*. 17(3-4):301-9 (2011 Feb).
- Fu J, Ghali BW, Lozynsky AJ, Oral E, Muratoglu OK. Wear resistant UHMWPE with high toughness by high temperature melting and subsequent radiation cross-linking. *Polymer*. 52(4):1155-62 (2011 Feb).
- Shervin N, Dorrwachter J, Bragdon CR, Shervin D, Zurakowski D, Malchau H. Comparison of paper and computer-based questionnaire modes for measuring health outcomes in patients undergoing total hip arthroplasty. *J Bone Joint Surg Am*. 93(3):285-93 (2011 Feb).
- Bodugöz-Sentürk H, Güven O. Preparation of poly(vinyl alcohol) hydrogels with radiation grafted citric and succinic acid groups. *Radiat Phys Chem*. 80(2):153-8 (2011 Feb).
- Callanan MC, Jarrett B, Bragdon CR, Zurakowski D, Rubash HE, Freiberg AA, Malchau H. The John Charnley Award: risk factors for cup malpositioning: quality improvement through a joint registry at a tertiary hospital. *Clin Orthop Relat Res*. 469(2):319-29 (2011 Feb).
- McCarthy JC, Jarrett BT, Ojeifo O, Lee JA, Bragdon CR. What factors influence long-term survivorship after hip arthroscopy? *Clin Orthop Relat Res*. 469(2):362-71 (2011 Feb).
- Muratoglu OK, Wannomae KK, Rowell SL, Micheli BR, Malchau H. Ex vivo stability loss of irradiated and melted ultra-high molecular weight polyethylene. *J Bone Joint Surg Am*. 92(17):2809-16 (2010 Dec).
- Beal MD, Marchie A, Black E, Malchau H, Burke D. Treatment of a well-fixed modular fully porous coated stem after fracture using a custom rescue sleeve. *J Arthroplasty*. 25(8):1301-3 (2010 Dec).
- Katz JN, Wright EA, Wright J, Corbett KL, Malchau H, Baron JA, Losina E. Choice of hospital for

revision total hip replacement. *J Bone Joint Surg Am.* 92(17):2829-34 (2010 Dec).

- Jarrett BT, Cofsky J, Rosenberg AE, Oral E, Muratoglu O, Malchau H. In vivo biological response to vitamin E and vitamin-E-doped polyethylene. *J Bone Joint Surg Am.* 92(16):2672-81 (2010 Nov).
- Bichara DA, Zhao X, Hwang NS, Bodugöz-Sentürk H, Yaremchuk MJ, Randolph MA, Muratoglu OK. Porous poly(vinyl alcohol)-alginate gel hybrid construct for neocartilage formation using human nasoseptal cells. *J Surg Res.* 163(2):331-6 (2010 Oct).
- Roque PJ, Mankin HJ, Malchau H. Proximal femoral allograft: prognostic indicators. *J Arthroplasty.* 25(7):1028-33 (2010 Oct).
- Fehm MN, Huddleston JI, Burke DW, Geller JA, Malchau H. Repair of a deficient abductor mechanism with Achilles tendon allograft after total hip replacement. 92(13):2305-11 (2010 Oct).
- Oral E, Ghali BW, Rowell SL, Micheli BR, Lozynsky AJ, Muratoglu OK. A surface crosslinked UHMWPE stabilized by vitamin E with low wear and high fatigue strength. 31(27):7051-60 (2010 Sep).
- Wannomae KK, Christensen SD, Micheli BR, Rowell SL, Schroeder DW, Muratoglu OK. Delamination and adhesive wear behavior of alpha-tocopherol-stabilized irradiated ultrahigh-molecular-weight polyethylene. *J Arthroplasty.* 25(4):635-43 (2010 Jun).
- Fu J, Ghali BW, Lozynsky AJ, Oral E, Muratoglu OK. Ultra high molecular weight polyethylene with improved plasticity and toughness by high temperature melting. *Polymer.* 51(12):2721-31 (2010 May).
- von Knoch F, Marchie A, Malchau H. Total joint registries: a foundation for evidence-based arthroplasty. *Virtual Mentor.* 12(2):124-9 (2010 Feb).
- Jibodh SR, Kandil AO, Malchau H, Estok DM 2nd. Do commonly reported outcome measures reflect patient satisfaction after revision hip arthroplasty? *J Arthroplasty.* 25(1):41-5 (2010 Jan).
- von Knoch F, Malchau H. Why do we need a national joint replacement registry in the United States? *Am J Orthop.* 38(10):500-3 (2009 Oct).
- Ayers DC, Hays PL, Drew JM, Eskander MS, Osuch D, Bragdon CR. Two-year radiostereometric analysis evaluation of femoral head penetration in a challenging population of young total hip arthroplasty patients. *J Arthroplasty.* 24(6 suppl): 9-14 (2009 Sep).
- Slover J, Hoffman MV, Malchau H, Tosteson AN, Koval KJ. A cost-effectiveness analysis of the arthroplasty options for displaced femoral neck fractures in the active, healthy, elderly population. *J Arthroplasty.* 24(6):854-60 (2009 Sep).
- Oral E, Godleski-Beckos C, Ghali BW, Lozynsky AJ, Muratoglu OK. Effect of cross-link density on the high pressure crystallization of UHMWPE. *J Biomed Mater Res B Appl Biomater.* 90(2):720-9 (2009 Aug).
- Huddleston JI, Scarborough DM, Goldvasser D, Freiberg AA, Malchau H. 2009 Marshall Urist Young Investigator Award: How often do patients with high-flex total knee arthroplasty use high flexion? *Clin Orthop Relat Res.* 467(7):1898-906 (2009 Jul).
- Oral E, Godleski-Beckos CA, Lozynsky AJ, Malhi AS, Muratoglu OK. Improved resistance to wear and fatigue fracture in high pressure crystallized vitamin E-containing ultra-high molecular weight polyethylene. *Biomaterials.* 30(10):1870-80 (2009 Apr).

- Barrington JW, Sah A, Malchau H, Burke DW. Contemporary cruciate-retaining total knee arthroplasty with a pegged tibial baseplate. Results at a minimum of ten years. *J Bone Joint Surg Am.* 91(4):874-8 (2009 Apr).
- Bodugöz-Sentürk H, Macias CE, Kung JH, Muratoglu OK. Poly(vinyl alcohol)-acrylamide hydrogels as load-bearing cartilage substitute. *Biomaterials.* 30(4):589-96 (2009 Feb).
- Shervin N, Dorrwachter JM, Bragdon CR, Malchau H. Comparison of Physician and Patient Administered Harris Hip Score. *J Arthroplasty.* 24(2):e75 (2009 Feb).
- Rolfson O, Dahlberg LE, Nilsson JA, Malchau H, Garellick G. Variables determining outcome in total hip replacement surgery. *J Bone Joint Surg Br.* 91(2):157-61 (2009 Feb).
- Duffy GP, Wannomae KK, Rowell SL, Muratoglu OK. Fracture of a cross-linked polyethylene liner due to impingement. *J Arthroplasty.* 24(1):158.e15-9 (2009 Jan).
- Hansson T, Hansson E, Malchau H. Utility of spine surgery: a comparison of common elective orthopaedic surgical procedures. *Spine.* 33(25):2819-30 (2008 Dec).
- Oral E, Malhi AS, Wannomae KK, Muratoglu OK. Highly cross-linked ultrahigh molecular weight polyethylene with improved fatigue resistance for total joint arthroplasty: recipient of the 2006 Hap Paul Award. *J Arthroplasty.* 23(7):1037-44 (2008 Oct).
- Oral E, Godleski-Becks C, Muratoglu OK. Free radical elimination in irradiated UHMWPE through crystal mobility in phase transition to the hexagonal phase. *Polymer.* 49(21):4733-9 (2008 Oct).
- Oral E, Godleski-Beckos C, Malhi AS, Muratoglu OK. The effects of high dose irradiation on the cross-linking of vitamin E-blended ultrahigh molecular weight polyethylene. *Biomaterials.* 29(26):3557-60 (2008 Sep).
- Slover JD, Tosteson AN, Bozic KJ, Rubash HE, Malchau H. Impact of hospital volume on the economic value of computer navigation for total knee replacement. *J Bone Joint Surg Am.* 90(7):1492-500 (2008 Jul).
- Järvholm B, From C, Lewold S, Malchau H, Vingård E. Incidence of surgically treated osteoarthritis in the hip and knee in male construction workers. *Occup Environ Med.* 65(4):275-8 (2008 Apr).
- Bodugöz-Sentürk H, Choi J, Oral E, Kung JH, Macias CE, Braithwaite G, Muratoglu OK. The effect of polyethylene glycol on the stability of pores in polyvinyl alcohol hydrogels during annealing. *Biomaterials.* 29(2):141-9 (2008 Jan).
- Malchau, H, Potter, H. How are wear-related problems diagnosed and what forms of surveillance are necessary? *J Am Acad Orthop Surg.* 16(1 suppl):S14-9 (2008).
- Crowninshield RD, Muratoglu OK. How have new sterilization techniques and new forms of polyethylene influenced wear in total joint replacement? *J Am Acad Orthop Surg.* 16(1 suppl):S80-5 (2008).
- Oral E, Wannomae KK, Rowell SL, Muratoglu OK. Diffusion of vitamin E in ultra-high molecular weight polyethylene. *Biomaterials.* 28(35):5225-37 (2007 Dec).
- Bragdon CR, Kwon YM, Geller JA, Greene ME, Freiberg AA, Harris WH, Malchau H. Minimum 6-year followup of highly cross-linked polyethylene in THA. *Clin Orthop Relat Res.* 465:122-7 (2007 Dec).

- Bhattacharyya T, Chang D, Meigs JB, Estok DM 2nd, Malchau H. Mortality after periprosthetic fracture of the femur. *J Bone Joint Surg Am.* 89(12):2658-62 (2007 Dec).
- Kurtz SM, Ong KL, Schmier J, Mowat F, Saleh K, Dybvik E, Kärrholm J, Garellick G, Havelin LI, Furnes O, Malchau H, Lau E. Future clinical and economic impact of revision total hip and knee arthroplasty. *J Bone Joint Surg Am.* 89(3 suppl):144-51 (2007 Oct).
- Bragdon CR, Greene ME, Freiberg AA, Harris WH, Malchau H. Radiostereometric analysis comparison of wear of highly cross-linked polyethylene against 36- vs 28-mm femoral heads. *J Arthroplasty.* 22(6 suppl 2):125-9 (2007 Sep).
- Estok DM 2nd, Burroughs BR, Muratoglu OK, Harris WH. Comparison of hip simulator wear of 2 different highly cross-linked ultra high molecular weight polyethylene acetabular components using both 32- and 38-mm femoral heads. *J Arthroplasty.* 22(4):581-9 (2007 Jun).
- Muratoglu OK, Rubash HE, Bragdon CR, Burroughs BR, Huang A, Harris WH. Simulated normal gait wear testing of a highly cross-linked polyethylene tibial insert. *J Arthroplasty.* 22(3):435-44 (2007 Apr). Erratum in *J Arthroplasty.* 23(1):158 (2008 Jan).
- Choi J, Bodugoz-Senturk H, Kung HJ, Malhi AS, Muratoglu OK. Effects of solvent dehydration on creep resistance of poly(vinyl alcohol) hydrogel. *Biomaterials.* 28(5):772-80 (2007 Feb).
- Plank GR, Estok DM 2nd, Muratoglu OK, O'Connor DO, Burroughs BR, Harris WH. Contact stress assessment of conventional and highly crosslinked ultra high molecular weight polyethylene acetabular liners with finite element analysis and pressure sensitive film. *J Biomed Mater Res B Appl Biomater.* 80(1):1-10 (2007 Jan).
- Ioppolo J, Börlin N, Bragdon C, Li M, Price R, Wood D, Malchau H, Nivbrant B. Validation of a low-dose hybrid RSA and fluoroscopy technique: Determination of accuracy, bias and precision. *J Biomech.* 40(3):686-92 (2007).
- Oral E, Rowell SL, Muratoglu OK. The effect of alpha-tocopherol on the oxidation and free radical decay in irradiated UHMWPE. *Biomaterials.* 27(32):5580-7 (2006 Nov).
- Burroughs BR, Rubash HE, Estok D, Jasty M, Krevolin J, Muratoglu OK. Comparison of conventional and highly crosslinked UHMWPE patellae evaluated by a new in vitro patellofemoral joint simulator. *J Biomed Mater Res B Appl Biomater.* 79(2):268-74 (2006 Nov).
- Burroughs BR, Muratoglu OK, Bragdon CR, Wannomae KK, Christensen S, Lozynsky AJ, Harris WH. In vitro comparison of frictional torque and torsional resistance of aged conventional gamma-in-nitrogen sterilized polyethylene versus aged highly crosslinked polyethylene articulating against head sizes larger than 32 mm. *Acta Orthop.* 77(5):710-8 (2006 Oct).
- Wannomae KK, Bhattacharyya S, Freiberg A, Estok D, Harris WH, Muratoglu O. In vivo oxidation of retrieved cross-linked ultra-high-molecular-weight polyethylene acetabular components with residual free radicals. *J Arthroplasty.* 21(7):1005-11 (2006 Oct).
- Bragdon CR, Barrett S, Martell JM, Greene ME, Malchau H, Harris WH. Steady-state penetration rates of electron beam-irradiated, highly cross-linked polyethylene at an average 45-month follow-up. *J Arthroplasty.* 21(7):935-43 (2006 Oct).
- Kwon YM, Morshed S, Malchau H. Cemented or cementless stem fixation in THA: what is the current evidence? *Orthopedics.* 29(9):793-4 (2006 Sep).
- Huddleston J, Alaiti A, Goldvasser D, Scarborough D, Freiberg A, Rubash H, Malchau H, Harris W,

Krebs D. Ambulatory measurement of knee motion and physical activity: preliminary evaluation of a smart activity monitor. *J Neuroeng Rehabil.* 3:21 (2006 Sep).

- Bragdon CR, Martell JM, Greene ME, Estok DM 2nd, Thanner J, Kärrholm J, Harris WH, Malchau. Comparison of femoral head penetration using RSA and the Martell method. *Clin Orthop Relat Res.* 448:52-7 (2006 Jul).
- Bragdon CR, Thanner J, Greene ME, Malchau H, Digas G, Harris WH, Kärrholm J. Standing versus supine radiographs in RSA evaluation of femoral head penetration. *Clin Orthop Relat Res.* 448:46-51 (2006 Jul).
- Oral E, Christensen SD, Malhi AS, Wannomae KK, Muratoglu OK. Wear resistance and mechanical properties of highly cross-linked, ultrahigh-molecular weight polyethylene doped with vitamin E. *J Arthroplasty.* 21(4):580-91 (2006 Jun).
- Geller JA, Malchau H, Bragdon CR, Greene ME, Harris WH, Freiberg AA. Large diameter femoral heads on highly cross-linked polyethylene: minimum 3-year results. *Clin Orthop Relat Res.* 447:53-9 (2006 Jun).
- Oral E, Wannomae KK, Rowell SL, Muratoglu OK. Migration stability of alpha-tocopherol in irradiated UHMWPE. *Biomaterials.* 27(11):2434-9 (2006 Apr).
- Wannomae KK, Christensen SD, Freiberg AA, Bhattacharyya S, Harris WH, Muratoglu OK. The effect of real-time aging on the oxidation and wear of highly cross-linked UHMWPE acetabular liners. *Biomaterials.* 27(9):1980-7 (2006 Mar).
- Pavoov PV, Gearing BP, Muratoglu OK, Cohen RE, Bellare A. Wear reduction of orthopaedic bearing surfaces using polyelectrolyte multilayer nanocoatings. *Biomaterials.* 27(8):1527-33 (2006 Mar).
- Oral E, Malhi AS, Muratoglu OK. Mechanisms of decrease in fatigue crack propagation resistance in irradiated and melted UHMWPE. *Biomaterials.* 27(6):917-25 (2006 Feb).
- Oral E, Greenbaum ES, Malhi AS, Harris WH, Muratoglu OK. Characterization of irradiated blends of alpha-tocopherol and UHMWPE. *Biomaterials.* 26(33):6657-63 (2005 Nov).
- Muratoglu OK, Wannomae K, Christensen S, Rubash HE, Harris WH. Ex vivo wear of conventional and cross-linked polyethylene acetabular liners. *Clin Orthop Relat Res.* 438:158-64 (2005 Sep).
- Bragdon CR, Martell JM, Estok DM 2nd, Greene ME, Malchau H, Harris WH. A new approach for the Martell 3-D method of measuring polyethylene wear without requiring the cross-table lateral films. *J Orthop Res.* 23(4):720-5 (2005 Jul).
- Jasty M, Rubash HE, Muratoglu OK. Highly cross-linked polyethylene: the debate is over--in the affirmative. *J Arthroplasty.* 20(4 suppl):55-8 (2005 Jun).
- Bragdon CR, Jasty M, Muratoglu OK, Harris WH. Third-body wear testing of a highly cross-linked acetabular liner: the effect of large femoral head size in the presence of particulate poly(methyl-methacrylate) debris. *J Arthroplasty.* 20(3):379-85 (2005 Apr).
- Estok DM 2nd, Bragdon CR, Plank GR, Huang A, Muratoglu OK, Harris WH. The measurement of creep in ultrahigh molecular weight polyethylene: a comparison of conventional versus highly cross-linked polyethylene. *J Arthroplasty.* 20(2):239-43 (2005 Feb).
- Digas G, Kärrholm J, Thanner J, Malchau H, Herberts P. The Otto Aufranc Award. Highly cross-

linked polyethylene in total hip arthroplasty: randomized evaluation of penetration rate in cemented and uncemented sockets using radiostereometric analysis. *Clin Orthop Relat Res.* 429:6-16 (2004 Dec).

- Muratoglu OK, Burroughs BR, Bragdon CR, Christensen S, Lozynsky A, Harris WH. Knee simulator wear of polyethylene tibias articulating against explanted rough femoral components. *Clin Orthop Relat Res.* 428:108-13 (2004 Nov).
- Oral E, Wannomae KK, Hawkins N, Harris WH, Muratoglu OK. Alpha-tocopherol-doped irradiated UHMWPE for high fatigue resistance and low wear. *Biomaterials.* 25(24):5515-22 (2004 Nov).
- Muratoglu OK, Bragdon CR, Jasty M, O'Connor DO, Von Knoch RS, Harris WH. Knee-simulator testing of conventional and cross-linked polyethylene tibial inserts. *J Arthroplasty.* 19(7):887-97 (2004 Oct).
- Greenbaum ES, Burroughs BB, Harris WH, Muratoglu OK. Effect of lipid absorption on wear and compressive properties of unirradiated and highly crosslinked UHMWPE: an in vitro experimental model. *Biomaterials.* 25(18):4479-84 (2004 Aug).
- Bragdon CR, Estok DM, Malchau H, Kärrholm J, Yuan X, Bourne R, Veldhoven J, Harris WH. Comparison of two digital radiostereometric analysis methods in the determination of femoral head penetration in a total hip replacement phantom. *J Orthop Res.* 22(3):659-64 (2004 May).
- Muratoglu OK, Greenbaum ES, Bragdon CR, Jasty M, Freiberg AA, Harris WH. Surface analysis of early retrieved acetabular polyethylene liners: a comparison of conventional and highly crosslinked polyethylenes. *J Arthroplasty.* 19(1):68-77 (2004 Jan).
- Muratoglu OK, Merrill EW, Bragdon CR, O'Connor D, Hoeffel D, Burroughs B, Jasty M, Harris WH. Effect of radiation, heat, and aging on in vitro wear resistance of polyethylene. *Clin Orthop Relat Res.* 417:253-62 (2003 Dec).
- Digas G, Kärrholm J, Thanner J, Malchau H, Herberts P. Highly cross-linked polyethylene in cemented THA: randomized study of 61 hips. *Clin Orthop Relat Res.* 417:126-38 (2003 Dec).
- Muratoglu OK, Ruberti J, Melotti S, Spiegelberg SH, Greenbaum ES, Harris WH. Optical analysis of surface changes on early retrievals of highly cross-linked and conventional polyethylene tibial inserts. *J Arthroplasty.* 18(7 suppl 1):42-7 (2003 Oct).
- Bragdon CR, Jasty M, Muratoglu OK, O'Connor DO, Harris WH. Third-body wear of highly cross-linked polyethylene in a hip simulator. *J Arthroplasty.* 18(5):553-61 (2003 Aug).
- Gul RM, McGarry FJ, Bragdon CR, Muratoglu OK, Harris WH. Effect of consolidation on adhesive and abrasive wear of ultra high molecular weight polyethylene. *Biomaterials.* 24(19):3193-9 (2003 Aug).
- Muratoglu OK, Perinchief RS, Bragdon CR, O'Connor DO, Konrad R, Harris WH. Metrology to quantify wear and creep of polyethylene tibial knee inserts. *Clin Orthop Relat Res.* 410:155-64 (2003 May).
- Muratoglu OK, Delaney J, O'Connor DO, Harris WH. The use of trans-vinylene formation in quantifying the spatial distribution of electron beam penetration in polyethylene. Single-sided, double-sided and shielded irradiation. *Biomaterials.* 24(12):2021-9 (2003 May).
- Burroughs BR, Rubash HE, Harris WH. Femoral head sizes larger than 32 mm against highly cross-linked polyethylene. *Clin Orthop Relat Res.* 405:150-7 (2002 Dec).

- Maloney WJ, Schmalzried T, Harris WH. Analysis of long-term cemented total hip arthroplasty retrievals. *Clin Orthop Relat Res.* 405:70-8 (2002 Dec).
- Muratoglu OK, Bragdon CR, O'Connor DO, Perinchief RS, Jasty M, Harris WH. Aggressive wear testing of a cross-linked polyethylene in total knee arthroplasty. *Clin Orthop Relat Res.* 404:89-95 (2002 Nov).
- Bragdon CR, Malchau H, Yuan X, Perinchief R, Kärrholm J, Börlin N, Estok DM, Harris WH. Experimental assessment of precision and accuracy of radiostereometric analysis for the determination of polyethylene wear in a total hip replacement model. *J Orthop Res.* 20(4):688-95 (2002 Jul).
- Harrington MA Jr, O'Connor DO, Lozynsky AJ, Kovach I, Harris WH. Effects of femoral neck length, stem size, and body weight on strains in the proximal cement mantle. *J Bone Joint Surg Am.* 84-A(4):573-9 (2002 Apr).
- Muratoglu OK, O'Connor DO, Bragdon CR, Delaney J, Jasty M, Harris WH, Merrill E, Venugopalan P. Gradient crosslinking of UHMWPE using irradiation in molten state for total joint arthroplasty. *Biomaterials.* 23(3):717-24 (2002 Feb).
- Andrews P, Barrack RL, Harris WH. Stress fracture of the medial wall of the acetabulum adjacent to a cementless acetabular component. *J Arthroplasty.* 17(1):117-20 (2002 Jan).
- Kurtz SM, Muratoglu OK, Gsell R, Greer K, Shen FW, Cooper C, Buchanan FJ, Spiegelberg S, Yau SS, Edidin AA. Interlaboratory validation of oxidation-index measurement methods for UHMWPE after long-term shelf aging. *J Biomed Mater Res.* 63(1):15-23 (2002).
- Duffy GP, Muratoglu OK, Biggs SA, Larson SL, Lozynsky AJ, Harris WH. A critical assessment of proximal macrotexturing on cemented femoral components. *J Arthroplasty.* 16(8 suppl 1):42-8 (2001 Dec).
- Burroughs BR, Golladay GJ, Hallstrom B, Harris WH. A novel constrained acetabular liner design with increased range of motion. *J Arthroplasty.* 16(8 suppl 1):31-6 (2001 Dec).
- Muratoglu OK, Bragdon CR, O'Connor D, Perinchief RS, Estok DM 2nd, Jasty M, Harris WH. Larger diameter femoral heads used in conjunction with a highly cross-linked ultra-high molecular weight polyethylene: a new concept. *J Arthroplasty.* 16(8 suppl 1):24-30 (2001 Dec).
- Hauser DL, Wessinger SJ, Condon RT, Golladay GJ, Hoeffel DP, Gillis DJ, Merrill DR, Chaisson D, Freiberg AA, Estok DM, Rubash HE, Malchau H, Harris WH. An electronic database for outcome studies that includes digital radiographs. *J Arthroplasty.* 16(8 suppl 1):71-5 (2001 Dec).
- Muratoglu OK. The comparison of the wear behavior of four different types of crosslinked acetabular components. *J Orthop Res.* 19(6):1210 (2001 Nov).
- Kurtz SM, Muratoglu OK, Buchanan FJ, Currier B, Gsell R, Shen FW, Yau SS. Interlaboratory studies to determine optimal analytical methods for measuring the oxidation index of UHMWPE. *Biomaterials.* 22(21):2875-81 (2001 Nov).
- Behairy Y, Meldrum RD, Harris WH. Hybrid revision total hip arthroplasty: a 7-year follow-up study. *J Arthroplasty.* 16(7):829-37 (2001 Oct).
- Muratoglu OK, Harris WH. Identification and quantification of irradiation in UHMWPE through transvinylene yield. *J Biomed Mater Res.* 56(4):584-92 (2001 Sep).

- Clohisy JC, Harris WH. Matched-pair analysis of cemented and cementless acetabular reconstruction in primary total hip arthroplasty. *J Arthroplasty*. 16(6):697-705 (2001 Sep).
- Bragdon CR, O'Connor DO, Lowenstein JD, Jasty M, Biggs SA, Harris WH. A new pin-on-disk wear testing method for simulating wear of polyethylene on cobalt-chrome alloy in total hip arthroplasty. *J Arthroplasty*. 16(5):658-65 (2001 Aug).
- Kurtz SM, Muratoglu OK, Buchanan F, Currier B, Gsell R, Greer K, Gualtieri G, Johnson R, Schaffner S, Sevo K, Spiegelberg S, Shen FW, Yau SS. Interlaboratory reproducibility of standard accelerated aging methods for oxidation of UHMWPE. *Biomaterials*. 22(13):1731-7 (2001 Jul).
- Muratoglu OK, Bragdon CR, O'Connor DO, Jasty M, Harris WH. A novel method of cross-linking ultra-high-molecular-weight polyethylene to improve wear, reduce oxidation, and retain mechanical properties. Recipient of the 1999 HAP Paul Award. *J Arthroplasty*. 16(2):149-60 (2001 Feb).
- Estok DM 2nd, Harris WH. A stem design change to reduce peak cement strains at the tip of cemented total hip arthroplasty. *J Arthroplasty*. 15(5):584-9 (2000 Aug).
- Dearborn JT, Harris WH. Acetabular revision after failed total hip arthroplasty in patients with congenital hip dislocation and dysplasia. Results after a mean of 8.6 years. *J Bone Joint Surg Am*. 82-A(8):1146-53 (2000 Aug).
- Smith SE, Estok DM 2nd, Harris WH. 20-year experience with cemented primary and conversion total hip arthroplasty using so-called second-generation cementing techniques in patients aged 50 years or younger. *J Arthroplasty*. 15(3):263-73 (2000 Apr).
- Malchau H. Editorial. Introduction new technology: A stepwise Algorithm. *Spine*. 25(3):285 (2000 Feb).
- Dearborn JT, Harris WH. Acetabular revision arthroplasty using so-called jumbo cementless components: an average 7-year follow-up study. *J Arthroplasty*. 15(1):8-15 (2000 Jan).
- Clohisy JC, Harris WH. The Harris-Galante uncemented femoral component in primary total hip replacement at 10 years. 14(8):915-7 (1999 Dec).
- Maloney WJ, Galante JO, Anderson M, Goldberg V, Harris WH, Jacobs J, Kraay M, Lachiewicz P, Rubash HE, Schutzer S, Woolson ST. Fixation, polyethylene wear, and pelvic osteolysis in primary total hip replacement. *Clin Orthop Relat Res*. 369:157-64 (1999 Dec).
- Bal BS, Maurer T, Harris WH. Revision of the acetabular component without cement after a previous acetabular reconstruction with use of a bulk femoral head graft in patients who had congenital dislocation or dysplasia. A follow-up note. *J Bone Joint Surg Am*. 81(12):1703-6 (1999 Dec).
- Muratoglu OK, Bragdon CR, O'Connor DO, Jasty M, Harris WH, Gul R, McGarry F. Unified wear model for highly crosslinked ultra-high molecular weight polyethylenes (UHMWPE). *Biomaterials*. 20(16):1463-70 (1999 Aug). Erratum in *Biomaterials*. 24(8):1527 (2003 Apr).
- Silva MJ, Reed KL, Robertson DD, Bragdon C, Harris WH, Maloney WJ. Reduced bone stress as predicted by composite beam theory correlates with cortical bone loss following cemented total hip arthroplasty. *J Orthop Res*. 17(4):525-31 (1999 Jul).
- Dearborn JT, Harris WH. High placement of an acetabular component inserted without cement in a revision total hip arthroplasty. Results after a mean of ten years. *J Bone Joint Surg Am*. 81(4):469-80 (1999 Apr).

- Anderson MJ, Harris WH. Total hip arthroplasty with insertion of the acetabular component without cement in hips with total congenital dislocation or marked congenital dysplasia. *J Bone Joint Surg Am.* 81(3):347-54 (1999 Mar).
- Clohisy JC, Harris WH. Primary hybrid total hip replacement, performed with insertion of the acetabular component without cement and a precoat femoral component with cement. An average ten-year follow-up study. *J Bone Joint Surg Am.* 81(2):247-55 (1999 Feb).
- Clohisy JC, Harris WH. The Harris-Galante porous-coated acetabular component with screw fixation. An average ten-year follow-up study. *J Bone Joint Surg Am.* 81(1):66-73 (1999 Jan).
- Schmalzried TP, Brown IC, Amstutz HC, Engh CA, Harris WH. The role of acetabular component screw holes and/or screws in the development of pelvic osteolysis. *Proc Inst Mech Eng H.* 213(2):147-53 (1999).
- Smith SW, Estok DM 2nd, Harris WH. Total hip arthroplasty with use of second-generation cementing techniques. An eighteen-year-average follow-up study. *J Bone Joint Surg Am.* 80(11):1632-40 (1998 Nov).
- Kawate K, Maloney WJ, Bragdon CR, Biggs SA, Jasty M, Harris WH. Importance of a thin cement mantle. Autopsy studies of eight hips. *Clin Orthop Relat Res.* 355:70-6 (1998 Oct).
- Harris WH. Average 12-year outcome of a chrome-cobalt, beaded, bony ingrowth acetabular component. *J Arthroplasty.* 13(7):846 (1998 Oct).
- Dorr LD, Bierbaum BE, Engh CA, Harris WH, Mallory TH, Rosenberg AG. Hip challenges: what would you do? *Orthopedics.* 21(9):1055-8 (1998 Sep).
- Harris WH. Reconstruction at a high hip center in acetabular revision surgery using a cementless acetabular component. *Orthopedics.* 21(9):991-2 (1998 Sep).
- Dearborn JT, Harris WH. Postoperative mortality after total hip arthroplasty. An analysis of deaths after two thousand seven hundred and thirty-six procedures. *J Bone Joint Surg Am.* 80(9):1291-4 (1998 Sep).
- Bal BS, Vandellune D, Gurba DM, Jasty M, Harris WH. Polyethylene wear in cases using femoral stems of similar geometry, but different metals, porous layer, and modularity. *J Arthroplasty.* 13(5):492-9 (1998 Aug).
- McGrory BJ, Estok DM 2nd, Harris WH. Follow-up of intertrochanteric osteotomy of the hip during a 25-year period. *Orthopedics.* 21(6):651-3 (1998 Jun).
- Ramamurti BS, Estok DM, Jasty M, Harris WH. Analysis of the kinematics of different hip simulators used to study wear of candidate materials for the articulation of total hip arthroplasties. *J Orthop Res.* 16(3):365-9 (1998 May).
- Shinar AA, Harris WH. Cemented total hip arthroplasty following previous femoral osteotomy: an average 16-year follow-up study. *J Arthroplasty.* 13(3):243-53 (1998 Apr).
- Smith SE, Estok DM 2nd, Harris WH. Average 12-year outcome of a chrome-cobalt, beaded, bony ingrowth acetabular component. *J Arthroplasty.* 13(1):50-60 (1998 Jan).
- Bal BS, Maurer BT, Harris WH. Trochanteric union following revision total hip arthroplasty. *J Arthroplasty.* 13(1):29-33 (1998 Jan).

- Smith SE, Harris WH. Total hip arthroplasty performed with insertion of the femoral component with cement and the acetabular component without cement. Ten to thirteen-year results. *J Bone Joint Surg Am.* 79(12):1827-33 (1997 Dec).
- Liu A, O'Connor DO, Harris WH. Comparison of cerclage techniques using a hose clamp versus monofilament cerclage wire or cable. *J Arthroplasty.* 12(7):772-6 (1997 Oct).
- Sedlacek RC, O'Connor DO, Lozynsky AJ, Harris WH. Assessment of the symmetry of bone strains in the proximal femoral medial cortex under load in bilateral pairs of cadaver femurs. *J Arthroplasty.* 12(6):689-94 (1997 Sep).
- Smith SW, Mankiletow A, Harris WH. Vastus-Psoas release for acetabular exposure in revision hip surgery. *J Arthroplasty.* 12(5):568-71 (1997 Aug).
- Ramamurti BS, Orr TE, Bragdon CR, Lowenstein JD, Jasty M, Harris WH. Factors influencing stability at the interface between a porous surface and cancellous bone: a finite element analysis of a canine in vivo micromotion experiment. *J Biomed Mater Res.* 36(2):274-80 (1997 Aug).
- Jasty M, Bragdon C, Burke D, O'Connor D, Lowenstein J, Harris WH. In vivo skeletal responses to porous-surfaced implants subjected to small induced motions. *J Bone Joint Surg Am.* 79(5):707-14 (1997 May).
- Mulroy WF, Harris WH. Acetabular and femoral fixation 15 years after cemented total hip surgery. *Clin Orthop Relat Res.* 337:118-28 (1997 Apr).
- Bal BS, Jiranek WA, Jasty M, Harris WH. Periprosthetic femoral osteolysis around an uncemented nonmodular Moore prosthesis. *J Arthroplasty.* 12(3):346-9 (1997 Apr).
- McGrory BJ, Shinar AA, Freiberg AA, Harris WH. Enhancement of the value of hip questionnaires by telephone follow-up evaluation. *J Arthroplasty.* 12(3):340-3 (1997 Apr).
- Jasty M, Goetz DD, Bragdon CR, Lee KR, Hanson AE, Elder JR, Harris WH. Wear of polyethylene acetabular components in total hip arthroplasty. An analysis of one hundred and twenty-eight components retrieved at autopsy or revision operations. *J Bone Joint Surg Am.* 79(3):349-58 (1997 Mar).
- Bragdon CR, Jasty M, Kawate K, McGrory BJ, Elder JR, Lowenstein J, Harris WH. Wear of retrieved cemented polyethylene acetabula with alumina femoral heads. *J Arthroplasty.* 12(2):119- 25 (1997 Feb).
- Harris WH. Early loosening of the femoral component at the cement-prosthesis interface after total hip replacement. *J Bone Joint Surg Am.* 79(2):313-4 (1997 Feb).
- Shinar AA, Harris WH. Bulk structural autogenous grafts and allografts for reconstruction of the acetabulum in total hip arthroplasty. Sixteen-year-average follow-up. *J Bone Joint Surg Am.* 79(2):159-68 (1997 Feb).
- Jasty M, Bragdon CR, Zalenski E, O'Connor D, Page A, Harris WH. Enhanced stability of uncemented canine femoral components by bone ingrowth into the porous coatings. *J Arthroplasty.* 12(1):106-13 (1997 Jan).
- Estok DM 2nd, Orr TE, Harris WH. Factors affecting cement strains near the tip of a cemented femoral component. *J Arthroplasty.* 12(1):40-8 (1997 Jan).
- Maloney, W.J., Sychterz, C., Bragdon, C.R., McGovern, T., Jasty, M., Engh, C.A., Harris, W.H.: The

Otto Aufranc Award. Skeletal response to well fixed femoral components inserted with and without cement. Clin. Orthop. 333:15-26, 1996.

- Jasty, M., Webster, W., Harris, W.H.: Management of limb length inequality during total hip replacement. Clin. Orthop. 333:165-171, 1996.
- Harris, W.H.: Hybrid total hip replacement: Rationale and intermediate clinical results. Clin. Orthop. 333:115-164, 1996.
- Premnath, V., Harris, W.H., Jasty, M., Merrill, E.W.: Gamma sterilization of UHMWPE articular implants: an analysis of the oxidation problem. Biomaterials 17:1741-1753, 1996.
- Bragdon, C.R., Burke, D.W., Lowenstein, J.D., O'Connor, D.O., Ramamurti, B., Jasty, M., Harris, W.H.: Differences in Stiffness of the Interface between a Cementless Porous Implant and Cancellous Bone In Vivo in Dogs Due to a Varying Amount of Implant Motion. J. Arthroplasty 11:945-951, 1996.
- Ramamurti, B.S., Bragdon, C.R., O'Connor, D.O., Lowenstein, J.D., Jasty, M., II, Estok, D.M., Harris, W.H.: Loci of Movement of Selected Points on the Femoral Head during Normal Gait: Three-dimensional Computer Simulation. J. Arthroplasty 11:845-852, 1996.
- McGrory, B.J., Harris, W.H.: Can the Western Ontario and McMaster Universities (WOMAC) Osteoarthritis Index be Used to Evaluate Different Hip Joints in the Same Patient? J. Arthroplasty 11:841-844, 1996.
- O'Connor, D.O., Burke, J.W., Jasty, M., Sedlacek, R.C., Harris, W.H.: In Vitro Measurement of Strain in Bone Cement Surrounding the Femoral Component of Total Hip Replacements during Simulated Gait and Stair-Climbing. J. Orthop. Res. 14:769-777, 1996.
- McGrory, B.J., Bal, B.S., Harris, W.H.: Trochanteric osteotomy for total hip arthroplasty: Six variations and indications for their use. J. Amer. Acad. Orthop. Surgeons 4:258-267, 1996.
- Davies, J.P., Tse, M-K., Harris, W.H.: Monitoring the integrity of the cement-metal interface of total joint components in vitro using acoustic emission and ultrasound. J. Arthroplasty 11:594-601, 1996.
- McGrory, B.J., Freiberg, A.A., Shinar, A.A., Harris, W.H.: Correlation of measured range of hip motion following total hip arthroplasty and response to a questionnaire. J. Arthroplasty 11:565-571, 1996.
- Harris, W.H.: Modularity is Unnecessary in Primary Femoral THA but has some Advantages in Primary Acetabular THA. Point-Counterpoint. J. Arthroplasty 11:334-338, 1996.
- Schmalzreid, T.P., Peters, P.C., Maurer, B.T., Bragdon, C.R., Harris, W.H.: Long-duration Metal on Metal Total Hip Arthroplasties with Low Wear of the Articulating Surfaces. J. Arthroplasty 11:322-331, 1996.
- Harris, W.H., Smith, E.J., Goetz, D.D.: Bone Cement as a Seal Protecting the Femur from the Ingress of Particulate Wear Debris. Instructional Course Lectures, Douglas J. Pritchard, MD, Editor, Vol. 45. AAOS pgs. 183-185, Rosemont, IL: 1996.
- Mulroy, W.F., Harris, W.H.: Revision total hip arthroplasty with use of so-called second-generation cementing techniques for aseptic loosening of the femoral component. A fifteen year follow-up study. J Bone Joint Surg. 78-A:325-330, 1996.
- Jasty, M., II, Estok, D.M., Harris, W.H.: The mechanisms involved in the failure of fixation of

components in total hip arthroplasty. *Seminars in Arthroplasty* 7:76-85, 1996.

- McLaughlin, J.R., Harris, W.H.: Revision of the femoral component of a total hip arthroplasty with the calcar-replacement femoral component. Results after a mean of 10.8 years postoperatively. *J Bone Joint Surg.* 78-A:331-339, 1996.
- Schutzer, S.F., Grady-Benson, J., Jasty, M., O'Connor, D. O., Bragdon, C.R., Harris, W.H.: Influence of Intraoperative Femoral Fractures and Cerclage Wiring on Bone Ingrowth into Canine Porous-Coated Femoral Components. *J. Arthroplasty* 10 (6): 823-829, 1995.
- Mulroy, W.F., II, Estok, D.M., Harris, W.H.: Total hip arthroplasty with use of so-called second-generation cementing techniques. A fifteen-year-average follow-up study. *J. Bone Joint Surg.* *J. Bone Joint Surg.* 77-A (12) 1845-1852.
- Harris, W.H.: Cemented Revision for Femoral Failure. *Revision Total Hip Arthroplasty.* *Orthopedics*, 18(9):854-855, 1995.
- Harris, W.H.: The Lessons of Acetabular Component Fixation. *Acetabular Component Fixation in the 1990's.* *Orthopedics*, 18 (9):811-812, 1995.
- McGrory, B., Harris, W.H.: A 69-year old woman with thigh pain 21 years after total hip arthroplasty. *Imaging Rounds.* *Amer. J. Orthop.* 24:785-790, 1995.
- Harada, Y., Wang, J-T., Doppalapudi, V.A., Willis, A.A., Jasty, M., Harris, W.H., Nagase, M., Goldring, S.R.: Differential effects of different forms of hydroxyapatite and hydroxyapatite/tricalcium phosphate particles on human monocyte/macrophages in vitro. *J. Biomed. Mat. Res.* 31:19-26, 1996.
- Pierson, J.L., Harris, W.H.: Effect of improved cementing techniques on the longevity of fixation in revision cemented femoral arthroplasties: Average 8.8 year follow-up period. *J. Arthroplasty* 10:581-591, 1995.
- Smith, E., Harris, W.H.: Increasing prevalence of femoral lysis in cementless total hip arthroplasty. *J. Arthroplasty* 10:407-412, 1995.
- Davies, J.P., Harris, W.H.: Comparison of diametral shrinkage of centrifuged and uncentrifuged Simplex-P bone cement. *J. Applied Biomaterials* 6:209-211, 1995.
- Davies, J.P., Tse, M.K., Harris, W.H.: In Vitro Evaluation of Bonding of the Cement-Metal Interface of a Total Hip Femoral Component Using Ultrasound. *J. Orthop. Res.* 13:335-339, 1995.
- Freiberg, A.A., Harris, W.H.: The femoral stent: Surgical technique for a new method of cementing the femoral component in the presence of a large cortical defect. *J. Orthop.* 24:501-503, 1995.
- Jiranek, W., Jasty, M., Wang, J.T., Bragdon, C.R., Wolfe, H., Goldberg, M., Harris, W.H.: Tissue response to particulate polymethylacrylate in mice with various immune deficiencies. *J Bone Joint Surg.* 77-A: 1650-1661, 1995.
- Harris, W.H., Enneking, W.F.: Characteristics of the articular cartilage formed after interchanteric osteotomy. *J. Bone Joint Surg.* 77-A: 602-607, 1995.
- Harris, W.H.: The case for cementing all femoral components in total hip replacement. *Canad. J. Surg.*, 38: Suppl 1, S55-60, Feb., 1995.
- Jasty, M., Anderson, M.J., Harris, W.H.: Total Hip Replacement for Developmental Dysplasia of the

Hip. Clin. Orthop., 311:40-45, 1995

- Harris, W.H.: The Problem is Osteolysis. Clin. Orthop., 311:46-53, 1995.
- Harris, W.H., Rubash, H.E.: Discussion of Acetabular Revision. Ch. 38 pg. 347-350. In: Total Hip Revision Surgery. Galante, J.O., Rosenberg, A.G., Callaghan, J.J., Eds. Bristol-Myers-Squibb/Zimmer Orthopaedic Symposium Series. New York, Raven Press: 1995.
- Jasty, M., Harris, W.H.: Cementless Acetabular Revisions. Ch. 35. pg. 317-323. In: Total Hip Revision Surgery. Galante, J.O., Rosenberg, A.G., Callaghan, J.J., Eds. Bristol-Myers-Squibb/Zimmer Orthopaedic Symposium Series. New York, Raven Press: 1995.
- Harris, W.H.: Improved Long-Term Results of Femoral Fixation in Revision Surgery Using Modern Cementing. Ch. 31., pg. 289-294. In: Total Hip Revision Surgery. Galante, J.O., Rosenberg, A.G., Callaghan, J.J., Eds. Bristol-Myers-Squibb/Zimmer Orthopaedic Symposium Series. New York, Raven Press: 1995.
- Jasty, M., Bragdon, C.R., Bal, B.S., Harris, W.H.: Acetabular Modularity. Ch. 6, p.73-80. In: Total Hip Revision Surgery. Galante, J.O., Rosenberg, A.G., Callaghan, J.J., Eds. Bristol-Myers-Squibb/Zimmer Orthopaedic Symposium Series. New York, Raven Press: 1995.
- Jasty, M., Bragdon, C.R., Jiranek, W., Chandler, H., Maloney, W., Harris, W.H.: Etiology of osteolysis around porous-coated cementless total hip arthroplasties. Clin. Orthop. 308:111-126, 1994.
- Jasty, M., O'Connor, D.O., Henshaw, R.M., Harrigan, T.P., Harris, W.H.: Fit of the Uncemented Femoral Component and the Use of Cement Influence the Strain Transfer to the Femoral Cortex. J. Orthop. Res., 12:648-656, 1994.
- Harris, W.H.: Total Hip Replacement: "Cement versus Cementless" Resolution. Bulletin on the Rheumatic Diseases 43:1-4, 1994.
- Schmalzreid, T.P., Jasty, M., Rosenberg, A., Harris, W.H.: Polyethylene wear debris and tissue reactions in knee as compared to hip replacement prostheses. J Appl. Biomaterials 5:185-190, 1994.
- Goetz, D.D., Smith, E.J., Harris, W.H.: The prevalence of femoral osteolysis associated with components inserted with and without cement in total hip replacements. J Bone Joint Surg. 76-A:(8)1121-1129, 1994.
- Schutzer, S.F., Harris, W.H.: High placement of porous-coated acetabular components in complex total hip arthroplasty. J. Arthroplasty. 9(4):359-67, 1994 Aug.
- Kwong, L.M., Krushell, R.J., Maloney, W.J, Harris, W.H: A quantitative in vitro assessment of fit and screw fixation on the stability of a cementless hemispherical acetabular component. J. Arthroplasty 9:163-170, 1994.
- Schmalzreid, T.P., Wessinger, S.J., Hill, G.E., Harris, W.H.: The Harris-Galante Porous Acetabular Component Press-fit without Screw Fixation. J. Arthroplasty 9:235-242, 1994.
- McLaughlin, J.R., Tierney, M., Harris, W.H.: Mycobacterium avium intracellulare infection of hip arthroplasties in an AIDS patient. J. Bone Joint Surg. Br. 76-B: 498-499, 1994.
- McLaughlin, J.R., Harris, W.H.: A Composite Plug for Occluding the Femoral Canal Prior to Cementing a Total Hip Femoral Component. Orthopaedic Review 23:344-356, 1994.

- Harris, W.H.: Osteolysis and Particle Disease in Hip Replacement. A Review. *Acta Orthop. Scand.* 65: 113-124, 1994.
- Harris, W.H.: The Case for Cemented Fixation of the Femur in Every Patient. Ch. 36. In: *Instructional Course Lectures*, Vol. 43, M. Schafer, Ed. p. 367-371. AAOS: Rosemont, IL, 1994.
- Barrack, R.L., Tanzer, M., Kattapuram, S.V., Harris, W.H.: The Value of Contrast Arthrography in Assessing Loosening of Symptomatic Uncemented Total Hip Components. *Skeletal Radiol.*, 23:37-41, 1994.
- Davies, J.P., Harris, W.H.: Tensile Bonding Strength of the Cement-Prosthesis Interface. *Orthopedics* 17:171-173, 1994.
- Pierson, J.L., Harris, W.H.: Cemented Revision for Femoral Osteolysis in Cemented Arthroplasties. *J. Bone Joint Surg. Br.* 76-B: 40-44, 1994.
- Jasty, M., Bragdon, C.R., Lee, K., Hanson, A., Harris, W.H.: Surface Damage to Cobalt-Chrome Femoral Head Prostheses. *J Bone Joint Surg. Br.* 76-B: 73-77, 1994.
- Estok II, D.M., Harris, W.H.: Long-term Results of Cemented Femoral Revision Surgery Using Second-Generation Techniques. An Average 11.7 Year Follow-Up Evaluation. *Clin. Orthop.* 299:190-202, 1994.
- Jasty, M., Bragdon, C.R., Lee, K., Harris, W.H.: Wear of polyethylene in total joint replacement. *Seminars in Arthroplasty* 5(1):41-44, 1994.
- Buechel, F.F., Drucker, D., Jasty, M., Jiranek, W., Harris, W.H.: Osteolysis around uncemented acetabular components of cobalt-chrome surface replacement hip arthroplasty. *Clin. Orthop.* 298: 202-211, 1994.
- Jasty, M., Burke, D.W., Harris, W.H.: Biomechanics of cemented and cementless prostheses. *Chir. Organi Mov.*, 78:349-358, 1992.
- Jasty, M., Harris, W.H.: Particle disease associated with cementless total hip arthroplasty. *Seminars in Arthroplasty* 5(1):12-19, 1994.
- Sumner, D.R., Jasty, M., Jacobs, J.J., Urban, R.M., Bragdon, C.R., Harris, W.H., Galante, J.O.: Histology of porous-coated acetabular components. 25 cementless cups retrieved after autopsy. *Acta Orthop. Scand.* 1993; 64(6): 619-626.
- Davies, J.P., Harris, W.H.: In Vitro and In Vivo Studies of Pressurization of Femoral Cement in Total Hip Arthroplasty. *J. Arthroplasty* 8:585-591, 1993.
- Guttman, D., Schmalzreid, T.P., Jasty, M., Harris, W.H.: Light Microscopic Identification of Submicron Polyethylene Wear Debris. *J. Applied Biomaterials* 4:303-307, 1993.
- Jasty, M., Harris, W.H.: Periprosthetic Osteolysis. In: *Advances in Operative Orthopaedics*, R.S. Stauffer, M.G. Ehrlich, F.H. Fu, J.P. Kostuik, P.R. Manske, F.H. Sim, Eds. Vol. 1., p. 1-22, Mosby Year Book, Inc., Boston, 1993.
- Jasty, M., II, Estok, D.M., Harris, W.H.: The Mechanisms Involved in the Failure of Fixation of Components in Total Hip Arthroplasty. *Seminars in Arthroplasty* 4:238-247, 1993.
- Harris, W.H.: Editorial. One Step Back; Two Steps Forward. *J. Bone Joint Surg.*, 75-A: 959-960, 1993.

- Harris, W.H.: Total Hip Replacement in the Middle-Aged Patient. Contemporary Cementing for Fixation of the Femoral Component. *Orthop. Clin. N. Amer.* 24:611-616, 1993.
- Harris, W.H.: Management of the Deficient Acetabulum Using Cementless Fixation without Bone Grafting. *Orthop. Clin. N. Amer.* 24:663-665, 1993.
- Jasty, M., Bragdon, C.R., Lee, K., Hanson, A., Harris, W.H.: Wear of polyethylene in total joint arthroplasty: Experimental studies. Chapter 9: In: *Biological, Material and Mechanical Considerations of Joint Replacement*. Bernard F. Morrey, Ed. Bristol-Myers Squibb/Zimmer Orthopaedic Symposium Series. p. 103-117. Raven Press, New York: 1993.
- Maloney, W., Schmalzreid, T.P., Jasty, M., Kwong, L., Harris, W.H.: The cement interface: Retrieval studies. Chapter 6. In: *Biological, Material and Mechanical Considerations of Joint Replacement*. Bernard F. Morrey, Ed. Bristol-Myers Squibb/Zimmer Orthopaedic Symposium Series. p. 51-69. Raven Press, New York: 1993.
- Harris, W.H.: Keynote address: Clinical Considerations. Chapter 1. In: *Biological, Material, and Mechanical Considerations of Joint Replacement*. Bernard F. Morrey, Ed. Bristol-Myers Squibb/Zimmer Orthopaedic Symposium Series. p. 1-11. Raven Press, New York: 1993.
- Jasty, M., Henshaw, R.M., O'Connor, D.O., Harris, W.H.: High Assembly strains and femoral fractures produced during insertion of uncemented femoral components. *J. Arthroplasty* 8:479-487, 1993.
- Harris, W.H.: "Hybrid Total Hip Replacement." Ch. 33 in *Joint Replacement. State of the Art*, Coombs, R., Gristina, A. Hungerford, D., Eds. Mosby Year Book, St. Louis, MO, 1990.
- Barrack, R.L., Burke, D.W., Cook, S.D., Skinner, H.B., Harris, W.H.: Complications Related to Modularity of Total Hip Components. *J. Bone Joint Surg.* 75-B: 688-692, 1993.
- Pierson, J.L., Jasty, M., Harris, W.H.: Techniques of extraction of well-fixed cemented and cementless implants in revision total hip arthroplasty. *Orthopaedic Review* 22: 904-916, 1993.
- James, S., Blazka, S., Merrill, E.W., Jasty, M., Lee, K.R., Bragdon, C.R., Harris, W.H.: A challenge to the concept that UHMWPE oxidizes in vivo. *Biomaterials* 14: 643-647, 1993.
- Kwong, L.M., Jasty, M., Harris, W.H.: High failure rate of bulk femoral head allografts in total hip acetabular reconstructions at 10 years. *J. Arthroplasty* 8:341-346, 1993.
- Stracher, M.A., Jasty, M., Harris, W.H.: Anatomy of muscles around the hip during stair climbing. *Orthopaedics (International Edition)* 1(3) 254-260, 1993.
- Engh, C.A., McGovern, T.F., Bobyn, J.D., Harris, W.H.: A quantitative evaluation of periprosthetic bone-remodeling after cementless total hip arthroplasty. *J. Bone Joint Surg.*, 74-A: 1009-1020, 1992.
- Kaufer, H., Amstutz, H.C., Cuckler, J.M., Harris, W.H., Howie, D.W., Spector, M.: Symposium: Osteolysis in total joint replacement. *Contemporary Orthopaedics* 27: 47-78, 1993.
- Schmalzreid, T.P., Harris, W.H.: Hybrid total hip replacement. A 6.5 year follow-up study. *J. Bone Joint Surg. Br*, 75-B: 608-615, 1993.
- Paiement, G.D., Wessinger, S.J., Hughes, R., Harris, W.H.: Routine Use of Adjusted Low-Dose Warfarin to Prevent Venous Thromboembolism after Total Hip Replacement. *J. Bone Joint Surg.*, 75-A: 893-898, 1993.

- Jiranek, W.A., Michado, M., Jasty, M., Jevesevar, D., Wolfe, H.J., Goldring, S.R., Goldberg, M.J., Harris, W.H.: Production of Cytokines around Loosened Cemented Acetabular Components. *J. Bone Joint Surg.* 75-A:863-879, 1993.
- Goetz, D.D., Harris, W.H.: Why Have We Left Charnley Low Friction Arthroplasty? *Iowa Orthop. J.* 13:29-39, 1993.
- Harris, W.H.: Bulk versus Morselized Bone Graft in Acetabular Revision Total Hip Replacement. *Seminars in Arthroplasty* 4:68-71, 1993.
- Schmalzreid, T.P., Jasty, M., Rosenberg, A., Harris, W.H.: Histologic identification of polyethylene wear debris using Oil Red O.J. *Appl. Biomaterials* 4:119-125, 1993.
- Harris, W.H., Barrack, R.L.: Contemporary Algorithms for Evaluation of the Painful Total Hip Replacement. Part II. *Orthopaedic Review* 22:531-539, 1993.
- Jasty, M., Bragdon, C.R., Haire, T., Jr., Mulroy, R.D., Harris, W.H.: Comparison of bone ingrowth into cobalt-chrome sphere and titanium fiber mesh porous coated cementless canine acetabular components. *J. Biomed. Mat. Res.* 27:639-644, 1993.
- Page, A.E., Allan, C., Jasty, M., Harrigan, T.P., Bragdon, C.R., Harris, W.H.: Determination of Loading Parameters in the Canine Hip In Vivo. *J. Biomechanics* 26:571-579, 1993.
- Harris, W.H., Barrack, R.L.: Developments in Diagnosis of the Painful Total Hip Replacement. *Orthopaedic Review* 22:439-477, 1993.
- Schmalzreid, T.P., Maloney, W.J., Jasty, M., Kwong, L.M., Harris, W.H.: Autopsy Studies of the Bone-Cement Interface in Well-Fixed Cemented Total Hip Arthroplasties. *J. Arthroplasty* 8:179-188, 1993.
- Davies, J.P., Harris, W.H.: Strength of Cement-Metal Interfaces in Fatigue: Comparison of Smooth, Porous and Precoated Specimens. *Clin. Materials* 12:121-126, 1993
- Jasty, M., Bragdon, C.R., Rubash, H., Schutzer, S.F., Haire, T., Harris, W.H.: Unrecognized femoral fractures during cementless total hip arthroplasty in the dog and their effect on bone ingrowth. *J. Arthroplasty* 7:501-508, 1992.
- Davey, J.R., O'Connor, D.O., Burke, D.W., Harris, W.H.: Femoral Component Offset. Its Effect on Strain in Bone Cement. *J. Arthroplasty* 8:23-26, 1993.
- Jasty, M., Krushell, R., Zalenski, E., O'Connor, D.O., Sedlacek, R.C., Harris, W.H.: The Contribution of the Nonporous Distal Stem to the Stability of Proximally Porous-Coated Canine Femoral Components. *J. Arthroplasty* 8:33-41, 1983.
- Pierson, J.L., Harris, W.H.: Extensive Osteolysis behind an Acetabular Component that was Well Fixed with Cement. *J. Bone Joint Surg.* 75-A: 268-271, 1993.
- Maloney, W.J., Davey, J.R., Harris, W.H.: Bead Loosening from a Porous-Coated Acetabular Component: a follow-up note. *Clin. Orthop.* 281:112-114, 1992.
- Barrack, R.L., Harris, W.H.: The Value of Aspiration of the Hip Joint before Revision Total Hip Arthroplasty. *J. Bone Joint Surg.* 75-A: 66-76, 1993.
- Paiement, G.D., Shutzer, S.F., Wessinger, S.J., Harris, W.H.: Influence of Prophylaxis on Proximal Venous Thrombus Formation after Total Hip Arthroplasty. *J. Arthroplasty* 7:472-475, 1992.

- Engh, C.A., O'Connor, D.O., Jasty, M., McGovern, T.F., Bobyn, J.D., Harris, W.H.: Quantification of Implant Micromotion, Strain Shielding, and Bone Resorption with Porous-Coated Anatomic Medullary Locking Femoral Prostheses. *Clin. Orthop.*, 285: 13-29, 1992.
- Jasty, M., Jiranek, W., Harris, W.H.: Acrylic Fragmentation in Total Hip Replacements and Its Biological Consequences. *Clin. Orthop.*, 285:116-128, 1992.
- James, S.P., Schmalzried, T.P., McGarry, F.J., Harris, W.H.: Extensive Porosity at the Cement-Femoral Prosthesis Interface: A Preliminary Study. *J. Biomed. Mat. Res.* 27:71-78, 1993.
- Harris, W.H.: Is it Advantageous to Strengthen the Cement-Metal Interface and Use a Collar for Cemented Femoral Components of Total Hip Replacements? *Clin. Orthop.* 285:67-72, 1992.
- Schmalzried, T.P., Harris, W.H.: The Harris-Galante Porous-Coated Acetabular Component with Screw Fixation. Radiographic Analysis of Eighty-Three Primary Hip Replacements. *J Bone Joint Surg.* 74-A:1130-1139, 1992.
- Jasty, M., Bragdon, C.R., Maloney, W.J., Jr., Mulroy, R.D., Haire, T., Crowninshield, R.D., Harris, W.H.: Bone Ingrowth into a Low Modulus Composite Plastic Porous-Coated Canine Femoral Component. *J. Arthroplasty* 7:253-259, 1992.
- Tanzer, M., Drucker, D., Jasty, M., McDonald, M., Harris, W.H.: Revision of the Acetabular Components with an Uncemented Harris-Galante Porous-Coated Prosthesis. *J. Bone Joint Surg.* 74-A: 987-994, 1992.
- Jasty, M., Jr., Mulroy, R.D., Harris, W.H.: Total Hip Replacement and Implant Interfaces. Ch. 26. p. 276-288. In: Habala, M.B., Reddi, A.H.. Eds.: *Bone Grafts and Bone Substitutes*. W.B. Saunders Co., Philadelphia, 1992.
- Schmalzried, T.P., Jasty, M., Harris, W.H.: Periprosthetic Bone Loss in Total Hip Arthroplasty. *J. Bone Joint Surg.* 74-A: 849-863, 1992.
- Maloney, W.J., Jasty, M., Willett, C., Jr., Mulroy, R.D., Harris, W.H.: Prophylaxis for Heterotopic Bone Formation after Total Hip Arthroplasty Using Low Dose Radiation in High Risk Patients. *Clin. Orthop.* 280:230-234, 1992.
- Barrack, R.L., Jasty, M., Bragdon, C.R., Haire, T., Harris, W.H.: Thigh Pain Despite Bone Ingrowth into Uncemented Femoral Stems. *J Bone Joint Surg.* 74-B: 507-510, 1992.
- Jasty, M., Rubash, H.E., Paiement, G.D., Bragdon, C.R., Parr, J., Harris, W.H.: Porous-Coated Uncemented Components in Experimental Total Hip Arthroplasty in Dogs. Effect of Plasma-Sprayed Calcium Phosphate Coatings on Bone Ingrowth. *Clin. Orthop.* 280:300-309, 1992.
- Davies, J.P., Harris, W.H.: The Effect of Addition of Methylene Blue on The Fatigue Strength of Simplex-P Bone Cement. *J. Applied Biomaterials* 3:81-85, 1992.
- Steinberg, B., Harris, W.H.: The "Offset" Problem in Total Hip Arthroplasty. *Contemporary Orthopaedics* 24:556-562, 1992.
- Barrack, R.L., Jr., Mulroy, R.D., Harris, W.H.: Improved Cementing Techniques and Femoral Component Loosening in Young Patients with Hip Arthroplasty: a 12 year radiographic review. *J Bone Joint Surg.* 74-B: 385-389, 1992.
- Tanzer, M., Maloney, W.J., Jasty, M., Harris, W.H.: The progression of femoral cortical osteolysis in association with total hip arthroplasty without cement. *J. Bone Joint Surg.* 74-A: (3):404-410, 1992.

- Jasty, M., Maloney, W.J., Harris, W.H., Galante, J.O., Callaghan, J.J.: Endosteal osteolysis around well-fixed porous coated cementless femoral components. In: ASTP STP 114, K.R. St. John, Ed., Am. Soc. for Testing and Materials, Philadelphia, PA, pp. 61-67, 1992.
- James, S., Jasty, M., Davies, J., Piehler, H., Harris, W.H.: A fractographic investigation of PMMA bone cement focusing on the relationship between porosity reduction and increased fatigue life. *J. Biomedical Mat. Res.* 26(3):651-662, 1992.
- Davies, J.P., Singer, G., Harris, W.H.: The Effect of a Thin Coating of Polymethylmethacrylate on the Torsional Fatigue Strength of the Cement-Metal Interface. *J. Appl. Biomaterials* 3(1):45-50, 1992.
- Kwong, L.M., Jasty, M., Jr., Mulroy, R.D., Maloney, W.J., Bragdon, C.R., Harris, W.H.: The Histology of the Radiolucent Line. *J. Bone Joint Surg.* 74-B: 67-73, 1992.
- Collier, J.P., Baure, T.W., Bloeman, R.D., Bobyn, J.D., Cook, S.D., Galante, J.O., Harris, W.H., Head, W.C., Jasty, M., Mayor, M.B., Sumner, R., Whiteside, L.C.: Results of Implant Retrieval from Postmortem Specimens in Patients with Well-Functioning, Long-Term Total Hip Replacement. *Clin. Orthop.* 274: 97-112, 1992.
- Harrigan, T.P., Kareh, J., O'Connor, D.O., Burke, D.W., Harris, W.H.: A Finite Element Study of the Initiation of Failure of Fixation of Cemented Total Hip Components. *J. Orthop. Res.* 10(1):134-144, 1992.
- Harris, W.H.: Will Stress Shielding Limit the Longevity of Cemented Femoral Components of Total Hip Replacement? *Clin. Orthop.* 274: 120-123, 1992.
- Harrigan, T.P., Harris, W.H.: A Three-Dimensional Non-Linear Finite Element Study of the Effect of Cement-Prosthesis Debonding in Cemented Femoral Total Hip Components. *J. Biomechanics* 24:1047-1058, 1991.
- Harris, W.H.: The First 32 Years of Total Hip Arthroplasty. One Surgeon's Perspective. *Clin. Orthop.* 274:6-11, 1992.
- Schmalzried, T.P., Kwong, L.M., Jasty, M., Sedlacek, R.C., Haire, T.C., O'Connor, D.O., Bragdon, C.R., Kabo, J.M., Malcolm, A.J., Harris, W.H.: The Mechanism of Loosening of Cemented Acetabular Components in Total Hip Arthroplasty. *Clin. Orthop.* 274: 60-78, 1992.
- Krushell, R.J., Burke, D.W., Harris, W.H.: Elevated Rim Acetabular Components: Effect on Range of Motion and Stability in Total Hip Arthroplasty. *J. Arthroplasty; Suppl.* 6 S53-S58, 1991.
- Mulroy Jr., R. D., Sedlacek, R.C., O'Connor, D.O., II, Estok, D.M., Harris, W.H.: Technique to Detect Migration of Femoral Components of Total Hip Arthroplasties on Conventional Radiographs. *J. Arthroplasty* 6, Suppl., S1-S4, 1991.
- Jasty, M., Bragdon, C.R., Maloney, W.J., Haire, T., Harris, W.H.: Ingrowth of Bone in Failed Fixation of Porous-Coated Femoral Components. *J. Bone Joint Surg. (Am)* 73-A: 1331-1337, 1991.
- Davies, J.P., Harris, W.H.: Effect of Hand Mixing Tobramycin on the Fatigue Strength of Simplex P. *J. Biomedical Mat. Res.* 25: 1409-1414, 1991.
- Page, A., Jasty, M., Bragdon, C.R., Ito, K., Harris, W.H.: Alterations in Femoral and Acetabular Bone Strains Immediately Following Cementless Total Hip Arthroplasty: an In Vitro Canine Study. *J. Orthop. Res.* 9:738-748, 1991.
- Jasty, M., Maloney, W.J., Bragdon, C.R., O'Connor, D.O., Haire, T., Harris, W.H.: The Initiation of

Failure in Cemented Femoral Components of Hip Arthroplasties. *J. Bone Joint Surg.* 73-B (4):551-558, 1991.

- Krushell, R.J., Burke, D.W., Harris, W.H.: Range of Motion in Contemporary Total Hip Arthroplasty. The Impact of Modular Head-Neck Components. *J. Arthroplasty* 6(2):97-101, 1991.
- Paiement, G.D., Wessinger, S.J., Harris, W.H.: Cost-Effectiveness of Propylaxis in Total Hip Replacement. *Am J Surg.* 161:519-524, 1991.
- Harris, W.H., Jr., Mulroy, R.D., Maloney, W.J., Burke, D.W., Chandler, H.P., Zalenski, E.B.: Intraoperative Measurement of Rotational Stability of Femoral Components of Total Hip Arthroplasty. *Clin. Orthop.*, 266:119-126, May 1991.
- Russotti, G.M., Harris, W.H.: Proximal Placement of the Acetabular Component in Total Hip Arthroplasty. A Long-Term Study. *J Bone Joint Surg.*, 73-A: 587-592, 1991.
- Harris, W.H., Davies, J.: Why Cement is Weak and How it Can be Strengthened. In: Instructional Course Lectures Vol. XL: 141-143, 1991, Hugh S. Tullos, M.D., Editor. Chicago: American Academy of Orthopedic Surgeons, 1991.
- Harrigan, T.P., Harris, W.H.: A Finite element study of the effect of diametral interface gaps on the contact areas and pressures in uncemented cylindrical femoral total hip components. *J Biomechanics* 24:87-91, 1991.
- Maloney, W.J., Krushell, R.D., Jasty, M., Harris, W.H.: Incidence of Heterotopic Ossification after Total Hip Replacement: Effect of the Type of Fixation of the Femoral Component. *J. Bone Joint Surg. (Am)* 73-A: 191-193, 1991.
- Burke, D.W., O'Connor, D.O., Zalenski, E.B., Jasty, M., Harris, W.H.: Micromotion of cemented and uncemented femoral components. *J. Bone Joint Surg. Br* 73-A: 33-37, 1991.
- Mulroy Jr., R.D., Harris, W.H.: Failure of Acetabular Autogenous Grafts in Total Hip Arthroplasty. Increasing Incidence: A Follow-Up Note. *J Bone Joint Surg. (Am)* 72-A: 1536-1540, 1990.
- Maloney, W.J., Jasty, M., Rosenberg, A., Harris, W.H.: Bone Lysis in Well-Fixed Cemented Femoral Components. *J. Bone Joint Surg. Br.* 72-B: 970, 1990.
- Maloney, W.J., Harris, W.H.: Comparison of a Hybrid with an Uncemented Total Hip Replacement. *J. Bone Joint Surg. (Am)* 72-A: 1349-1352, 1990.
- Schutzer, S.F., Harris, W.H.: Cemented Total Hip Replacement: Operative Techniques. Ch. 45. In: Steinberg, M.E., ed. *The Hip and Its Disorders*. W.B. Saunders & Co., Philadelphia, PA, 1991.
- Schutzer, S.F., Jasty, M., Bragdon, C.R., Harrigan, T.P., Harris, W.H.: A Double-Blind Study on the Effects of a Capacitively Coupled Electrical Field on Bone Ingrowth Into Porous-Surfaced Canine Total Hip Prostheses. *Clin. Orthop.* 260:297-304, 1990.
- Jasty, M., Maloney, W.J., Bragdon, C.R., Haire, T., Harris, W.H.: Histomorphological Studies of the Long-Term Skeletal Responses to Well Fixed Cemented Femoral Components. *J Bone Joint Surg.* 72-A:1220-1225, 1990.
- Jasty, M., Davies, J.P., O'Connor, D.O., Burke, D.W., Harrigan, T.P., Harris, W.H.: Porosity of Various Preparations of Acrylic Bone Cements. *Clin. Orthop.* 259:122-129, 1990.
- Mulroy Jr., R.D., Harris, W.H.: The Effect of Improved Cementing Techniques on Component

Loosening in Total Hip Replacement. *J Bone Joint Surg.* 72-B:757-760, 1990.

- Harris, W.H., Sledge, C.B.: Medical Progress: Total Hip and Total Knee Replacement (Second of Two Parts). *New Engl. J. Med.* 323:801-807, 1990.
- Harris, W.H., Sledge, C.B.: Medical Progress: Total Hip and Total Knee Replacement (First of Two Parts). *New Engl. J. Med.* 323:725-731, 1990.
- Harris, W.H., Rosenthal, D.I.: Case Records of the Massachusetts General Hospital, CASE 34 - 1990. *New Engl. J. Med.* 323:8, 534-539, 1990.
- Maloney, W.J., Jasty, M., Harris, W.H., Galante, J.O., Callaghan, J.J.: Endosteal Erosion in Association with Stable Uncemented Femoral Components. *J Bone Joint Surg.* 72-A: No. 7, 1025-1034, 1990.
- Mulroy Jr., R.D., Mankin, H.J., Harris, W.H. Insertion of a Prosthetic Hip. Into a Total Hip Allograft. *J. Bone Joint Surg.* 72-B: 4; 643-646; 1990.
- Mulroy Jr., R.D., Harris, W.H. Failure of acetabular autogenous grafts in total hip arthroplasty. Increasing incidence: a follow-up note. *J. Bone Joint Surg.*, 72-A:1536-1540, 1990.
- Harrigan, T.P., Kareh, J., Harris, W.H.: The Influence of Support Conditions in the Loading Fixture on Failure Mechanisms in the Push-Out Test: A Finite Element Study. *J. Ortho. Research* 8:678-684, 1990.
- Jasty, M., Schutzer, S., Tepper, J., Willett, C., Stracher, M.A., Harris, W.H.: Radiation-Blocking Shields to Localize Periarticular Radiation Precisely for Prevention of Heterotopic Bone Formation Around Uncemented Total Hip Arthroplasties. *Clin. Orthop.* 257:138-145, August, 1990.
- Paiement, G.D., Beisaw, N.E., Harris, W.H., Wessinger, S.J., Wyman, E., Advances in Prevention of Venous Thromboembolic Disease after Elective Hip Surgery. In: *Instructional Course Lectures, Vol. XXXIX, 413-421, 1990, Walter B. Greene, editor. Chicago: American Academy of Orthopedic Surgeons, 1990.*
- Johnston, R.C., Fitzgerald, R.H., Harris, W.H., Poss, R., Muller, M.E.: Clinical and Radiographic Evaluation of Total Hip Replacement. A Standard System of Terminology for Reporting Results. *J. Bone Joint Surg. (Am)* 72-A: 161-168, 1990.
- Davies, J.P., Harris, W.H.: Optimization and Comparison of Three Vacuum Mixing Systems for Porosity Reduction of Simplex P Cement. *Clin. Orthop.* 254:261-269, 1990.
- Jasty, M., Harris, W.H.: Salvage total hip reconstruction in total hip reconstruction in patients with major acetabular bone deficiency using structural femoral head allografts. *J. Bone Joint Surg.* 72-B: 63-67, 1990.
- Jasty, M., Harris, W.H.: Experience with Cementless Porous-Surfaced Acetabular Components. *Orthop. Rel. Sci.* 1:52-61, 1990.
- Jasty, M., Bragdon, C. R., Schutzer, S., Rubash, H. Haire, T., Harris, W.H.: Bone Ingrowth into Porous Coated Canine Total Hip Replacements. Quantification by Backscattered Scanning Electron Microscopy and Image Analysis. *Scanning Microscopy* 3(4): 1051-1057, 1989.
- Harris, W.H., Maloney, W.H: Hybrid total hip arthroplasty. *Clin. Orthop.* 249:21-29, 1989.
- Maloney, W.J., Jasty, M., Burke, D.W., O'Connor, D.O., Zalenski, E.B., Bragdon, C.R., Harris, W.H.:

Biomechanical and Histologic Investigation of Cemented Total Hip Arthroplasties. A Study of Autopsy-Retrieved Femurs After In Vivo Cycling. *Clin. Orthop.* 249:129-40, 1989.

- Sanders, D.P., McKinney, F.W., Harris, W.H.: Clinical Evaluation of Preoperative Laboratory Assessment on Patients Undergoing Total Hip Arthroplasty. *Orthopedics* 12(11):1449-53, 1989.
- Hodge, W.A., Carlson, K.L., Fijan, R.S., Burgess, R.G., Riley, P.O., Harris, W.H., Mann, R.W.: Contact pressures from an instrumented hip endoprosthesis. *J. Bone & Joint Surg. Am.* 71-A: 1378-1386, 1989.
- Davey, J. R., Harris, W.H.: A Preliminary Report of the Use of a Cementless Acetabular Component with a Cemented Femoral Component. *Clin. Orthop.* 245:150-155, 1989.
- Davies, J.P., O'Connor, D.O., Burke, D.W., Greer, J.A., Harris, W.H.: Influence of Antibiotic Impregnation on the Fatigue Life of Simplex P and Palacos R Acrylic Bone Cements, with and without Centrifugation. *J. Biomed. Mat. Res.* 23:379-397, 1989.
- Davies, J.P., O'Connor, D.O., Burke, D.W., Greer, J.A., Harris, W.H.: Comparison and Optimization of Three Centrifugation Systems for Reducing Porosity of Simplex P Bone Cement. *J. Arthroplasty* 4:15-20, 1989.
- Davies, J.P., Jasty, M., O'Connor, D.O., Burke, D.W., Harrigan, T.P., Harris, W.H.: The Effect of Centrifuging Bone Cement. *J. Bone Joint Surg. Br.* 71-B:39-42, 1989.
- Jasty, M., Harris, W.H.: Results of Total Hip Reconstruction Using Acetabular Mesh in Patients with Central Acetabular Deficiency. *Clin. Orthop.* 237:142-149, 1988.
- Jasty, M., Harris, W.H.: Observations on Factors Controlling Bony Ingrowth into Weight-Bearing, Porous, Canine Total Hip Replacements. In: *Non-Cemented Total Hip Arthroplasty*, edited by R. Fitzgerald, Jr., Raven Press Ltd., New York, p. 175, 1988.
- Rubash, H.E., Harris, W.H.: Revision of Nonseptic, Loose, Cemented Femoral Components Using Modern Cementing Techniques. *J. Arthroplasty* 3:241-248, 1988.
- Harris, W.H., Krushell, R.J., Galante, J.O.: Results of Cementless Revisions of Total Hip Arthroplasties Using the Harris-Galante Prosthesis. *Clin. Orthop.* 235:120-126, 1988.
- Schutzer, S.F., Harris, W.H.: Deep-wound infection after total hip replacement under contemporary aseptic conditions. *J. Bone Joint Surg.* 70-A:724-727, 1988.
- Harrigan, T.P., Jasty, M., Mann, R.W., Harris, W.H.: Limitations of the Continuum Assumption in Cancellous Bone. *J. Biomech.* 21(4):269-275, 1988.
- Davey, J.R., Harris, W.H.: Reverse Skeletal Traction for Instability Following Revision Total Hip Arthroplasty. A Report of Two Cases. *Clin. Orthop.* 234:110-114, 1988.
- Bell, D.F., Harris, W.H., Kuter, D.J., Wessinger, S.J.: Elevated Partial Thromboplastin Time as an Indicator of Hemorrhagic Risk in Postoperative Patients on Warfarin Prophylaxis. *J. Arthroplasty* 3:181-184, 1988.
- Harris, W.H., Davies, J.P.: Modern Use of Modern Cement for Total Hip Replacement. *Ortho Clinics of North America* 19:581-589, 1988.
- Davey, J.R., Harris, W.H.: Loosening of Cobalt Chrome Beads from a Porous-Coated Acetabular Component. A Report of Ten Cases. *Clin. Orthop.* 231:97-102, 1988.

- Davies, J.P., O'Connor, D.O., Burke, D.W., Jasty, M., Harris, W.H.: The Effect of Centrifugation on the Fatigue Life of Bone Cement in the Presence of Surface Irregularities. *Clin. Orthop.* 229:156-161, 1988.
- Paiement, G.D., Wessinger, S.J., Waltman, A.C., Harris, W.H.: Surveillance of Deep Vein Thrombosis in Asymptomatic Total Hip Replacement Patients. Impedance Phlebography and Fibrogen Scanning Versus Roentgenographic Phlebography. *The Amer. J. of Surg.* 155:400-404, 1988.
- Schutzer, S., Harris, W.H.: Trochanteric Osteomy for Revision Total Hip Arthroplasty. 97% Union Rate Using a Comprehensive Approach. *Clin. Orthop.* 227:172-183, 1988.
- Goldring, S.R., Jasty, M., Roelke, M., Petrisson, K.K., Bringham, F.R., Schiller, A.L., Harris, W.H.: Chapter 5. Biological Factors that Influence the Development of A Bone-Cement Membrane. In: *Non-Cemented Total Hip Arthroplasty*, edited by R. Fitzgerald, Jr., Raven Press, Ltd., New York, pp. 35-39, 1988.
- Smith, R.J., Malt, R.A., Harris, W.H., Remensnyder, J.P.: Long-term results of upper-limb replantation. In: *Microsurgery for Major Limb Reconstruction*, Chapter 5, edited by James R. Urbaniak, M.D., C.V. Mosby Co., pp. 30-37, 1987.
- Harris, W.H., Penneberg, B.L.: Further Follow-up on Socket Fixation using a Metal-Backed Acetabular Component for Total hip Replacement. A Minimum Ten-year Follow-up Study. *J. Bone and Joint Surg.* 69-A:1140-1143, 1987.
- Paiement, G.D., Wessinger, S.J., Harris, W.H.: Survey of Prophylaxis Against Venous Thromboembolism in Adults Undergoing Hip Surgery. *Clin. Orthop.* 223:188-193, 1987.
- Davies, J.P., Burke, D.W., O'Connor, D.O., Harris, W.H.: Comparison of the Fatigue Characteristics of Centrifuged and Uncentrifuged Simplex P Bone Cement. *J. Orthop. Res.* 5(3):366-71, 1987
- Davies, J.P., O'Connor, D.O., Greer, J.A., Harris, W.H.: Comparison of the mechanical properties of Simplex P, Zimmer Regular, LVC Bone Cements. *J. Biomed. Mat. Res.* 21:719-730, 1987.
- Jasty, M., Harris, W.H.: Total Hip Reconstruction Using Frozen Femoral Head Allografts in Patients with Acetabular Bone Loss. *Orthop. Clin. of N. Am.* 18:291-299, 1987.
- Paiement, G.D., Wessinger, S.J., Waltman, A.C., Harris, W.H.: Low-dose Warfarin Versus External Pneumatic Compression for Prophylaxis Against Venous Thromboembolism Following Total Hip Replacement. *J. Arthroplasty* 2:23-26, 1987.
- Rey Jr, R.M., Paiement, G.D., McGann, W.M., Jasty, M., Harrigan, T.P., Burke, D.W., Harris, W.H.: A Study of Intrusion Characteristics of Low Viscosity Cement Simplex-P and Palacos Cements in a Bovine Cancellous Bone Model. *Clin. Orthop.* 215:272-278, 1987.
- Harris, W.H.: Current status of non-cemented hip implants. In: *The Hip, Proceedings of the Fourteenth Open Scientific Meeting of the Hip Society*, C.V. Mosby Co., Ed. R.A. Brand, St. Louis, pp. 251-256, 1986.
- Paiement, G.D., Bell, D., Wessinger, S.J., Harris, W.H.: The Otto Aufranc Award Paper - New Advances in the Prevention, Diagnosis and Cost-Effectiveness of Venous Thromboembolic Disease Patients with Total Hip Replacement. In: *The Hip, Proceedings of the Fourteenth Open Scientific Meeting of the Hip Society*, C.V. Mosby Co., Ed. R.A. Brand, St. Louis: pp.94-119, 1986.
- Harris, W.H.: Bone grafting for acetabular deficiency in association with total replacement. In: *The*

Hip, Proceedings of the Fourteenth Open Scientific Meeting of the Hip Society, C.V. Mosby Co., Ed. R.A. Brand, St. Louis: pp. 94-119, 1986.

- Goldring, S.R., Jasty, M., Roelke, M.S., Rourke, C.M., Bringhurst, F.R. Harris, W.H.: Formation of a Synovial Like-Membrane at the Bone-Cement Interface. It's Role in Bone Resorption and Implant Loosening after Total Hip Replacement. *Arthritis and Rheumatism*, 29:836-842, 1986.
- Gerber, S.D., Harris, W.H.: Femoral Head Autografting to Augment Acetabular Deficiency in Patients Requiring Total Hip Replacement. *J. Bone Joint Surg.*, 68-A: 1241-1248, 1986.
- Harris, W.H.: Etiology of Osteoarthritis of the Hip. *Clin. Orthop.*, 213:20-33, 1986.
- Harris, W.H.: One-staged Exchange Arthroplasty for Septic Total Hip Replacement. In: *Instructional Course Lectures*. Ed. L.D. Anderson, C.V. Mosby Co., St. Louis: Vol. XXXV, pp. 226-228, 1986.
- Harris, W.H.: Factors Controlling Optimum Bone Total Hip Replacement Components. In: *Instructional Course Lectures*, Ed. L.D. Anderson, C.V. Mosby Co, St. Louis: Vol. XXXV, pp. 184-187, 1986.
- Harris, W.H., McGann, W.A.: Loosening of the Femoral Component after Use of the Medullary-Plug Cementing Technique. Follow-up Note with a Minimum Five-year Follow-up. *J. Bone Joint Surg.*, 68-A:1064-1066, 1986.
- Harris, W.H.: Optimization of Bony Ingrowth for Fixation of Total Hip Replacements. In: *Perspectives on Biomaterials*, Ed. O.C.C. Lin and E.Y.S.Chao, Elsevier Science Publishers B.V., Amsterdam, pp. 321-331, 1986.
- Harris, W.H.: Clinical Results of Metal and Plastic Implants in Total Hip Replacement. In: *Perspectives on Biomaterials*, Ed. O.C.C. Lin and E.Y.S. Chao, Elsevier Science Publishers B.V., Amsterdam, pp. 207-221, 1986.
- Jasty, M., III, Floyd, W.E., Schiller, A.L., Goldring, S.R., Harris, W.H.: Localized Osteolysis in Stable, Non-Septic Total Hip Replacement. *J. Bone Joint Surg.*, 68-A:912-919, 1986.
- Jensen, N.F., Harris, W.H.: A System for Trochanteric Osteotomy and Reattachment for Total Hip Arthroplasty with a Ninety-nine Percent Union Rate. *Clin. Orthop.*, 208:174-181, 1986.
- Harris, W.H.: Major Advances in Cementless Total Hip Replacement. In: *The Young Patient with Degenerative Hip Disease*. Ed. J. Sevastik and I. Goldie, Almqvist & Wiksell International, Stockholm: pp. 237-240, 1986.
- Woolson, S.T., Harris, W.H.: Greenfield Vena Caval Filter for Management of Selected Cases of Venous Thromboembolic Disease Following Hip Surgery: A Report of Five Cases. *Clin. Orthop.*, 204:201-206, 1986.
- Hodge, W.A., Fijan, R.S., Carlson, K.L., Burgess, R.G., Harris, W.H., Mann, R.W.: Contact Pressures in the Human Hip Joint Measured In Vivo. *Proc. Natl. Acad. Sci.* 83:2879-2883, 1986.
- McGann, W., Mankin, H.J., Harris, W.H.: Massive Allografting for Severe Failed Total Hip Replacement. *J. Bone Joint Surg.*, 68-A:4-12, 1986.
- Harris, W.H., Jasty, M.: Bone Ingrowth into Porous Coated Canine Acetabular Replacements: The Effect of Pore Size, Apposition, and Dislocation. In: *The Hip, Proceedings of the 13th Open Scientific Meeting of the Hip Society*, D.V. Mosby Co., Ed. R.H. Fitzgerald, St. Louis: pp. 214-234, 1985.

- Woolson, S.T., Harris, W.H.: A Method of Intraoperative Limb Length Measurement in Total Hip Arthroplasty. *Clin. Orthop.*, 194:207-210, 1985.
- Harris, W.H.: *Advanced Concepts in Total Hip Replacement*. Edited by W.H. Harris, SLACK, Inc., New Jersey, 1985.
- Harris, W.H., Athansoulis, C.A., Waltman, A.C., Salzman, E.W.: Prophylaxis of Deep-Vein Thrombosis after Total Hip Replacement. Dextran and External Pneumatic Compression with 1.2 or 0.3 Gram of Aspirin Daily. *J. Bone Joint Surg.*, 67-A:57-62, 1985.
- Harris, W.H.: Autografting and Allografting in Aseptic Failure of Total Hip Replacement. In: *The Hip, Proceedings of the 12th Open Scientific Meeting of the Hip Society*, Ed. R.B. Welch, St. Louis: C.V. Mosby Co., pp. 286-295, 1984.
- Harris, W.H., McKusick, K., Athanasoulis, C.A., Waltman, A.C., Strauss, H.W.: The Detection of Pulmonary Emboli after Total Hip Replacement Using Serial C1502 Pulmonary Scans. *J. Bone Joint Surg.*, 66-A: 1388-1392, 1984.
- Carter, D.R., Vasu, R., Harris, W.H.: Stress Changes in the Femoral Head Due to Porous Ingrowth Surface Replacement Arthroplasty. *J. Biomechanics*, 17:737-748, 1984.
- Burke, D.W., Gates, E.I., Harris, W.H.: Centrifugation as a Method of Improving Tensile and Fatigue Properties of Acrylic Bone Cement. *J. Bone Joint Surg.*, 66-A:1265-1273, 1984.
- Gates, E.I., Carter, D.R., Harris, W.H.: Comparative Fatigue Behavior of Different Bone Cements. *Clin. Orthop.*, 189:294-299, 1984.
- Miegel, R.E., Harris, W.H.: Medial-Displacement Intertrochanteric Osteomy in the Treatment of Osteoarthritis of the Hip. A Long-Term Follow-up Study. *J. Bone and Joint Surg.*, 66-A:878-887, 1984.
- Carter, D.R., Shimaoka, E.E., Harris, W.H., Gates, E.I., Caler, W.E., McCarthy, J.C.: Changes in Long-Bone Structural Properties During the First 8 Weeks of Plate Implantation. *J. Orthop. Res.* 2:80-89, 1984.
- Bourne, R.B., Oh, I., Harris, W.H.: Femoral Cement Pressurization During Total Hip Arthroplasty. The Role of Different Femoral Stems with Reference to Stem Size and Shape. *Clin. Orthop.*, 183:12-16, 1984.
- Harris, W.H.: Advances in Total Hip Arthroplasty. The Metal-backed Acetabular Component. *Clin. Orthop.*, 183:4-11, 1984.
- O'Neill, D.A., Harris, W.H.: Failed Total Hip Replacement Assessment by Plain Radiographs, Arthrograms, and Aspiration of the Hip Joint. *J. Bone Joint Surg.*, 66-A: 540-546, 1984.
- Harris, W.H.: Primary Osteoarthritis of the Hip: A Vanishing Diagnosis. *J. Rheumatology*, Supplement 9, pg. 64, 1983.
- Harris, W.H., Jr., White, R.E.: Advantages of Metal-Backed Acetabular Components for a Total Hip Replacement: A Clinical Assessment with a Minimum 5-Year Follow-up. In: *The Hip, Proceedings of the Eleventh Open Scientific Meeting for the Hip Society*, C.V. Mosby Co., St. Louis: Ed. D.S. Hungerford, Chapter 14, pp.240-246, 1983.
- White Jr., R.E., Harris, W.H., Mitchell, S., Barber, F.: Extraction of Broken Stems in Total Joint Replacement. In: *Revision of Total Hip and Knee*. University Park Press, Baltimore: Chapter 4, pp.

23-34, 1984.

- Oh, I., Bourne, R.B., Harris, W.H.: The Femoral Cement Compactor. An Improvement in Cementing Technique in Total Hip Replacement. *J. Bone Joint Surg.*, 65-A:1335-1338, 1983.
- Gates, E.I., Carter, D.R., Harris, W.H.: Tensile Fatigue Failure of Acrylic Bone Cement. *J. Biomech. Eng.*, 105: 393-397, 1983.
- Vasu, R., Carter, D.R., Harris, W.H.: Evaluation of Bone Cement Failure Criteria with Applications to the Acetabular Region. *J. Biomech. Eng.*, 105:332-337, 1983.
- Woolson, S.T., Harris, W.H.: Complex Total Hip Replacement for Dysplastic or Hypoplastic Hips Using Miniature or Microminiature Components. *J. Bone and Joint Surg.*, 65-A:1099-1108, 1983.
- Oh, I., Merckx, D.B., Harris, W.H.: Acetabular Cement Compactor: An Experimental Study of Pressurization of Cement in the Acetabulum in Total Hip Arthroplasty. *Clin. Orthop.*, 177:289-293, 1983.
- Harris, W.H., Jr., White, R.E., McCarthy, J.C., Walker, P.S., Weinberg, E.H.: Bony Ingrowth Fixation of the Acetabular Component in Canine Hip Joint Arthroplasty. *Clin. Orthop.*, 176:7-11, 1983.
- Goldring, S.R., Schiller, A.L., Roelke, M., Rourke, C.M., O'Neill, D.A., Harris, W.H.: The Synovial-like Membrane of the Bone-Cement Interface in Loose Total Hip Replacements and its Proposed Role in Bone Lysis. *J. Bone Joint Surg.*, 65-A:575-583, 1983.
- Harris, W.H.: Indications and Contraindications for Revision Surgery for Total Hip Replacement with Emphasis on Technical Problems and Solutions. In: *Modern Trends in Orthopedic Surgery*. Ed. Aulo Gaggi, Bologna: pp. 429-432, 1982.
- Harris, W.H., Jr., White, R.E.: Resection Arthroplasty for Nonseptic Failure of Total Hip Arthroplasty. *Clin. Orthop.*, 171:62-67, 1982.
- Merckx, D., Jaeger, J.H., Oh, I., Kempf, I., Harris, W.H.: Radio-anatomical Study of the Human Femur, *Anatomia Clinica*, 4:3-6, 1982.
- Gates-Pelander, E., Carter, D.R., Harris, W.H.: Strain Controlled Fatigue of Acrylic Bone Cement. *J. Biomed. Mat. Res.*, 16:647-657, 1982.
- Harris, W.H., Jr., McCarthy, J.C., O'Neill, D.A.: Loosening of the Femoral Component of Total Hip Replacement after Plugging the Femoral Canal. In: *The Hip, Proceedings of the 10th Open Scientific Meeting of the Hip Society*, St. Louis: C.V. Mosby Co., pp.228-238, 1982.
- Harris, W.H.: Revision Surgery for Failed, Nonseptic Arthroplasty. The Femoral Side. *Clin. Orthop.*, 170:8-20, 1982.
- Harris, W.H., McCarthy, J.C., O'Neill, D.A.: Femoral Component Loosening Using Contemporary Techniques of Femoral Cement Fixation. *J. Bone Joint Surg.*, 64-A: 1063-1067, 1982.
- Jupiter, J., Harris, W.H.: Direct Reimplantation of Total Hip Replacements in Septic Hips in the Adult. *Instructional Course Lectures*. Vol. 31, C.V. Mosby, St. Louis: AAOS, pp. 29-38, 1982.
- Harris, W.H., Jr., White, R.E.: Socket Fixation Using a Metal-Backed Acetabular Component for Total Hip Replacement. A Minimum Five-Year Follow-up. *J. Bone Joint Surg.*, 64-A:745-748, 1982.
- Oh, I., Harris, W.H.: A Cement Fixation System for Total Hip Arthroplasty. *Clin. Orthop.*, 164:221-

229, 1982.

- Carter, D.R., Harris, W.H., Vasu, R.: Stress Distributions in the Acetabular Region. II. Effects of Cement Thickness and Metal Backing in the Total Hip Acetabular Component. *J. Biomech.* 15:165-170, 1982.
- Vasu, R., Carter, D.R., Harris, W.H.: Stress Distributions in the Acetabular Region. I. Before and After Total Joint Replacement. *J. Biomech.*, 15:155-164, 1982.
- Oh, I., Harris, W.H.: Design Concepts, Indications and Surgical Technique for Use of the Protrusion Shell. *Clin. Orthop.*, 162:175-184, 1982.
- Harris, W.H.: Allografting in Total Hip Arthroplasty: In Adults with Severe Acetabular Deficiency Including a Surgical Technique for Bolting the Graft to the Illum. *Clin. Orthop.*, 162:150-164, 1982.
- Harris, W.H., Athanasoulis, C.A., Waltman, A.C., Salzman, E.W.: High and Low- Dose Aspirin Prophylaxis Against Venous Thromboembolic Disease in Total Hip Replacement. *J. Bone Joint Surg.*, 64-A:63-66, 1982.
- Harris, W.H., Jr., White, R.E., Mitchell, S., Barber, F.: Removal of Broken Stems of Total Joint Components by a New Method: Drilling, Undercutting and Extracting Without Damage to Bone. In: *The Hip, Proceedings of the 10th Open Scientific Meeting of the Hip Society.* C.V. Mosby Co., St. Louis: pp.37-45, 1981.
- Carter, D.R., Caler, W.E., Harris, W.H.: Resultant Loads and Elastic Modulus Calibration of Lone Bone Cross Sections. *J. Biomech.*, 14:739-745, 1981.
- Carter, D.R., Vasu, R., Harris, W.H.: The Plate Femur: Relationships between the Changes in Bone Stresses and Bone Loss. *Acta Orthop. Scand.*, 52:241-248, 1981.
- Coppe, D., Wessinger, S.J., Ransil, B.J., Harris, W.H., Salzman, E.: Sex Differences in the Platelet Response to Aspirin. *Thrombosis Research* 23:1-21, 1981.
- Caler, W.E., Carter, D.R., Harris, W.H.: Technical Note. Techniques for Implementing an In Vivo Bone Strain Gage System. *J. Biomechanics.* 14:503-507, 1981.
- Harris, W.H., Allen, J.R.: The Calcar Replacement Femoral Component for Total Hip Arthroplasty: Design, Uses and Surgical Technique. *Clin. Orthop.*, 157:215-224, 1981.
- Harris, W.H., White, R.E., Jr., Mitchell, S., Barber, F.: A New Technique for Removal of the Broken Femoral Stems in Total Stem Replacement. *J. Bone Joint Surg.*, 63-A: 843-845, 1981.
- Amrein, P.C., Ellman, L., Harris, W.H.: Aspirin-Induced Prolongation of Bleeding Time and Perioperative Blood Loss. *JAMA* 245:1825-1828, 1981.
- Carter, D.R., Harris, W.H., Vasu, R., Caler, W.E.: The Mechanical and Biological Response of Cortical Bone to In Vivo Strain Histories. In: *Mechanical Properties of Bone.* ASME, New York: Vol. 45, pp. 81-92, 1981.
- Rushfeldt, P.D., Mann, R.W., Harris, W.H.: Improved Techniques for Measuring In Vitro the Geometry and Pressure Distribution in the Human Acetabulum II. Instrumented Endoprosthesis Measurement of Articular Surface Pressure Distribution. *J. Biomechanics*, 14:315-323, 1981.
- Rushfeldt, P.D., Mann, R.W., Harris, W.H.: Improved Techniques for Measuring In Vitro the Geometry and Pressure Distribution in the Human Acetabulum I. Ultrasonic Measurement of

Acetabular Surfaces, Sphericity, and Cartilage Thickness. *J. Biomechanics*, 14:253-260, 1981.

- Harris, W.H., Waltman, A.C., Athanasoulis, C. Wessinger, S.J., Salzman, E.W.: The Accuracy of the In Vivo Diagnosis of Deep Vein Thrombosis in Patients with Prior Venous Thromboembolic Disease or Severe Varicose Veins. *Thrombosis Research*, 21:137-145, 1981.
- Jupiter, J.B., Karchmer, A.W., Lowell, J.D., Harris, W.H.: Total Hip Arthroplasty in the Treatment of Adult Hips with Current or Quiescent Sepsis. *J. Bone and Joint Surg.*, 63-A: 194-200, 1981.
- Harris, W.H.: Total Hip Replacement: Technical Considerations of Femoral Component Insertion. In: *The Hip, Proceedings of the Eight Open Scientific Meeting of the Hip Society*. C.V. Mosby Co., St. Louis: pp. 112-120, 1980.
- Stock, J.R., Harris, W.H., Athansoulis, C.A.: The Role of Diagnostic and Therapeutic Angiography in Trauma to the Pelvis. *Clin. Orthop.*, 151:31-40, 1980.
- Stock, J.R., Athanasoulis, C.A., Harris, W.H., Waltman, A.C., Novelline, R.A., Greenfield, A.J.: Transcatheter Embolization for the Control of Wound Hemorrhage Following Hip Surgery. *J. Bone Joint Surg.*, 62-A: 1000-1003, 1980.
- Harris, W.H.: Advances in Surgical Technique for Total Hip Replacement: Without and With Osteotomy of the Greater Trochanter. *Clin. Orthop.*, 146:188-204, 1980.
- Athanasoulis, C.A., Harris, W.H., Stock, J.R., Waltman, A.C.: Arterial Embolization to Control Pelvic Hemorrhage. In: *The Hip, Proceedings of the Seventh Open Scientific Meeting of the Hip Society*. Ed. C.B. Sledge, St. Louis: C.V. Mosby Co., pp. 247-259, 1979.
- Harris, W.H.: Total Hip Replacement, *Jefferson Orthop. J.*, 8:7-16, 1979.
- Harris, W.H., Moyen, B., Lahey, P., Weinberg, E.H.: La Reponse Osteoegnique au micro-courant continu. Une etude Experimentale Chez l'animal. *Revue de Chirurgie Orthopedique*, 65:311-316, 1979.
- Patel, D., Jr, Moellering, R.C., Thrasher, K., Fahmy, N.R., Harris, W.H.: The Effect of Hypotensive Anesthesia on Cephalothin Concentrations in Bone and Muscle of Patients Undergoing Total Hip Replacement. *J. Bone Joint Surg.*, 61-A:531-538, 1979.
- Harris, W.H., Bourne, R.B., Oh, I.: Intra-Articular Acetabulum Labrum. A Possible Etiological Factor in Certain Cases of Osteoarthritis of the Hip. *J. Bone Joint Surg.*, 61-A:510-514, 1979.
- Mann, R., Rushfeldt, P., Harris, W.H.: Influence of Cartilage Geometry on the Pressure Distribution in the Human Hip Joint. *Science*, 204:413-415, 1979.
- Garrett, J.C., Epstein, H.C., Harris, W.H., Harvey, J.P., Nickel, V.L.: Treatment of Unreduced Traumatic Posterior Dislocation of the Hip. *J. Bone Joint Surg.*, 61-A:2-6, 1979.
- Moyen, B. J-L, Lans, D.A., Thrasher, E.L., Cywinski, J.K., Brighton, C.T., Harris, W.H.: Electrical Stimulation of Osteogenesis: Studies of the Cathode. *Acta Orthop. Belgica*, 44:664-670, 1978.
- Harris, W.H.: Long Stem Femoral Components for Total Hip Replacements. *Italian Journal of Orthopedics and Traumatology*. 4:265-277, Dec.1978.
- Harris, W.H.: Loosening. In: *The Hip, Proceedings of the Sixth Open Scientific Meeting of the Hip Society*. Ed. Carl S. Nelson. St. Louis, C.V. Mosby Co., pp. 162-175, 1978.

- Mankin, H.J., Zarins-Thrasher, A., Weinberg, E.H., Harris, W.H.: Dissociation between the Effect of Bovine Growth Hormone in Articular Cartilage and in Bone of the Adult Dog. *J. Bone Joint Surg.*, 60-A: 1071-1075, 1978.
- Moyen, B. J-L., Lahey, P.J., Weinberg, E.H., Harris, W.H.: Effects of Intact Femora of Dogs of the Application and Removal of Metal Plates. *J. Bone and Joint Surg.*, 60-A:940-947, 1978.
- Aaron, R.K., Carvalho, A., Ellman, L., Harris, W.H.: The Relationship of Intravascular Coagulation and Fibrinolysis to Venous Thrombosis Following Total Hip Replacement. *Clin. Orthop.*, 135:148-153, 1978.
- Harris, W.H.: Total Hip Replacement for Osteoarthritis Secondary to Congenital Dysplasia or Congenital Dislocation of the Hip. *International Orthopaedics (SICOT)* 2:127-138, 1978.
- Oh, I., Carlson, C.E., Tomford, W.W., Harris, W.H.: Improved Fixation of the Femoral Component after Total Hip Replacement Using a Methacrylate Intermedullary Plug. *J. Bone Joint Surg.*, 60-A: 608-612, 1978.
- Harris, W.H., Crothers, O.D., Moyen, B. J-L., Bourne, R.B.: Topical Hemostatic Agents for Bone Bleeding in Humans. *J. Bone Joint Surg.*, 60-A:454-456, 1978.
- Harris, W.H., Oh, I.: A New Power Tool for Removal of Methylmethacrylate from the Femour. *Clin. Orthop.*, 132:53-54, 1978.
- Harris, W.H., Salzman, E.W., Athanasoulis, C.A., Waltman, A.C., DeSanctis, R.D.: Answer to J.E. Ansell and M. Hume's Letters to the Editor. *New Engl. J. Med.*, 1090-1091, 1978.
- Harris, W.H.: The Etiology and Prevention of Deep Wound Infection Following Total Hip Replacement. In: *The Infection-Prone Hospital Patient*, Ed. J.F. Burke and Hildick Smith, Boston: Little, Brown and Company, pp. 183-192, 1978.
- Harris, W.H., Crothers, O.D.: Reattachment of the Greater Trochanter in Total Hip Replacement Arthroplasty. *J. Bone Joint Surg.*, 60-A:211-213, 1978.
- Oh, I., Harris, W.H.: Proximal Strain Distribution in the Loaded Femur: In Vitro Comparison of the Distribution in the Intact Femur and after Insertion of Different Hip Replacement Femoral Components. *J. Bone Joint. Surg.*, 60-A:75-85, 1978.
- Harris, W.H., Salzman, E.W., Athanasoulis, C.A., Waltman, A.C., DeSanctis, R.W.: Aspirin Prophylaxis of Venous Thromboembolism after Total Hip Replacement. *N. Engl. J. Med.*, 297: 1246-1249, 1977.
- Harris, W.H., Pierce, R.W., Davis, N.J., Jennings, J.J., Fahmy, N.: Induced Hypotensive Anesthesia for Total Hip Replacement. In: *The Hip., Proceedings of the Fifth Open Scientific Meeting of the Hip Society*, Ed. W.R. Murray, St. Louis: C.V. Mosby Co. pp. 267-273, 1977.
- Patel, D., Crothers, O.D., Harris, W.H., Waltman, A., Fahmy, N., Carey, R.: Arterial Embolization for Radical Tumor Resection. *Acta Orthop. Scand.*, 48:353-355, 1977.
- Harris, W.H., Crothers, O., Oh, I.: Total Hip Replacement and Femoral-Head Bone-Grafting for Severe Acetabular Deficiency in Adults. *J. Bone Joint Surg.*, 59-A:752-759, 1977.
- Harris, W.H.: Current Concepts. Total Joint Replacement. *N. Engl. J. Med.*, 297:650-651, 1977.
- Harris, W.H., Moyen, B. J-L., II, Thrasher, E.L., Davis, L.A., Cobden, R.H., MacKenzie, D. A.,

Cywinski, J.K.: Differential Response to Electrical Stimulation: A Distinction between Induced Osteogenesis in Intact Tibiae and the Effect on Fresh Fracture Defects in Radii. *Clin. Orthop.*, 124:31-40, 1977.

- Carlson, C. E., Mann, R.W., Harris, W.H.: Design Features of a Pressure Telemetering Hip Prosthesis. *Biotelemetry*, III 127-130, 1976.
- Harris, W.H., Heaney, R.P., Davis, L.A., Weinberg, E.H., Coutts, R.D., Schiller, A.L.: Stimulation of Bone Formation in vivo by Phosphate Supplementation. *Calc. Tiss. Res.*, 22:85-98, 1976.
- Harris, W.H., Crothers, O.D.: Autogenous Bone Grafting Using the Femoral Head to Correct Severe Acetabular Deficiency for Total Hip Replacement. In: *The Hip, Proceedings of the Fourth Open Scientific Meeting of the Hip Society*. Ed: C.M. Evarts, St. Louis: C.V. Mosby Co., pp. 161-185, 1976.
- Patel, D., Karchmer, A., Harris, W.H.: The Role of Preoperative Aspiration of the Hip Prior to Total Hip Replacement. In: *The Hip, Proceedings of the Fourth Open Scientific Meeting of the Hip Society*. Ed. C.M. Evarts, St. Louis: C.V. Mosby, Co., pp. 219-223, 1976.
- Harris, W.H., Raines, J.K., Athanasoulis, C., Waltman, A.C., Salzman, E.W.: External Pneumatic Compression Versus Warfarin in Reducing Thrombosis in High-Risk Hip Patients. In: *Venous Thromboembolism Prevention and Treatment*. Ed. J.L. Madden, M.Hume, New York: Appleton-Century-Crofts, pp. 51-60, 1976.
- Harris, W.H.: Chapin Oration: Detection and Prevention of Thromboembolic Disease. *R.I. Med. J.*, 59:452, a passim, 1976.
- Harris, W.H., Athansoulis, C., Waltman, A.C., Salzman, E.W.: Cuff-Impedance Phlebography and 125 I Fibrinogen Scanning Versus Roentgenographic Phlebography for Diagnosis of Thrombophlebitis Following Hip Surgery. *J. Bone Joint Surg.*, 58-A:939-944, 1976.
- Jennings, J.J., Harris, W.H., Sarmiento, A.: A Clinical Evaluation of Aspirin Prophylaxis of Thromboembolic Disease after Total Hip Arthroplasty. *J. Bone Joint Surg.*, 58-A: 926-928, 1976.
- Salzman, E.W., Harris, W.H.: Prevention of Venous Thromboembolism in Orthopedic Patients. *J. Bone Joint Surg.*, 58-A: 903-913, 1976.
- Harris, W.H., Schiller, A.L., Scholler, J-M., Freiberg, R.A., Scott, R.: Extensive Localized Bone Resorption in the Femur Following Total Hip Replacement. *J. Bone Joint Surg.*, 58-A: 612-618, 1976.
- Cobden, R.H., Thrasher, E.L., Harris, W.H.: Topical Hemostatic Agents to Reduce Bleeding from Cancellous Bone. *J. Bone and Joint Surg.*, 58-A:70-73, 1976.
- Harris, W.H.: The Role of Cup Arthroplasty in Contemporary Reconstructive Surgery of the Hip: A Reappraisal. In: *Surgical Management of Degenerative Arthritis of the Lower Limb*. Ed: R.L. Cruess and N.S. Mitchell, Philadelphia: Lee and Febiger, pp. 79-82, 1975.
- Stulberg, S.D., Cordell, L.D., Harris, W.H., Ramsey, P.L., MacEwen, G.D.: Unrecognized Childhood Hip Disease: A Major Cause of Idiopathic Osteoarthritis of the Hip. In: *The Hip, Proceedings of the Third Open Scientific Meeting of the Hip Society*, Ed. H.C. Amstutz, St. Louis: C.V. Mosby Co., pp. 212-228, 1975.
- Harris, W.H., Rushfeldt, P.D., Carlson, C.E., Scholler, J-M., Mann, R.W.: Pressure Distribution in the Hip and Selection of Hemiarthroplasty. In: *The Hip, Proceedings of the Third Open Scientific Meeting of the Hip Society*. Ed: H.C. Amstutz, St. Louis: C.V. Mosby Co., pp.93-98, 1975.

- Harris, W.H., Salzman, E.W., Athanasoulis, C., Waltman, A.C., Baum, S., DeSanctis, R.W., Potsaid, M.S., Sise, H.: Comparison of 125I Fibrinogen Count Scanning with Phlebography for Detection of Venous Thrombi after Elective Hip Surgery. *N. Engl. J. Med.*, 292:665-667, 1975.
- Harris, J.H., Jr., Harris, W.H.: *The Radiology of Emergency Medicine*, Baltimore: Williams and Williams Co. 1975.
- Harris, W.H., Jones, W.N.: The Use of Wire Mesh in Total Hip Replacement Surgery. *Clin. Orthop.* 106:117-121, 1975.
- Harris, W.H.: A New Approach to Total Hip Replacement Without Osteotomy of the Greater Trochanter. *Clin. Orthop.*, 106:19-26, 1975.
- Carlson, C.E., Mann, R.W., Harris, W.H.: An Experimental Technique for Measuring the Cartilage Surface Pressure Distributions in the Hip. *New England Conference on Bioengineering*. Ed. M.H. Pope, R.W. McLoy, and R.G. Abshaer, University of Vermont, pp. 90-96, 1974.
- Malt, R.A., Harris, W.H.: Replanted Amputated Arms. In: *Management of Trauma*, Ed. E.F. Cave, J.F. Burke, and R.J. Boyd, Chicago: Year Book Medical Publishers, Inc. pp. 1183-1193, 1974.
- Harris, W.H.: Reconstructive Surgery of the Hip Following Trauma. In: *Management of Trauma*, Ed. E.F. Cave, J.F. Burke, and R.J. Boyd, Chicago: Year Book Medical Publishers, Inc. pp. 711-717, 1974.
- Harris, W.H., Salzman, E.W., Athanasoulis, C., Waltman, A.C., Baum, S. DeSanctis, R.W.: Comparison of Warfarin, Low-Molecular-Weight Dextran, Aspirin, and Subcutaneous Heparin in Prevention of Venous Thromboembolism Following Total Hip Replacement. *J. Bone Joint Surg.*, 56-A:1552-1562, 1974.
- Harris, W.H.: Total Hip Replacement for Congenital Dysplasia of the Hip: Technique. In: *The Hip, Proceedings of the Second Open Scientific Session of the Hip Society*, ed. W.H. Harris, St. Louis: C.V. Mosby Co., pp. 251-265, 1974.
- Stulberg, S.D., Harris, W.H.: Acetabular Dysplasia and Development of Osteoarthritis of the Hip. In: *The Hip, Proceedings of the Second Open Scientific Session of the Hip Society*, Ed. W.H. Harris, St. Louis: C.V. Mosby Co., pp. 82-93, 1974.
- Harris, W.H., Editor: *The Hip, Proceedings of the Second Open Scientific Session of the Hip Society*, St. Louis: C.V. Mosby Co., 1974.
- Carlson, C.E., Mann, R.W., Harris, W.H.: A Look at the Prosthesis-Cartilage Interface: Design of the Hip Prosthesis Containing Pressure Transducers. *J. Biomed. Mater. Res.* 8:261-269, 1974.
- Harris, W.H.: Thromboembolic Disease in Elective Reconstructive Surgery in the Adult Hip. In: *AAOS Instructional Course Lectures*. St. Louis: C.V. Mosby Co., XXIII: 242-244, 1974.
- Harris, W.H.: Total Hip Replacement for Failed Endoprostheses and Cup Arthroplasty: Technical Considerations. In: *AAOS Instructional Course Lectures*. St. Louis: C.V. Mosby Co., XXIII: 154-163, 1974.
- Harris, W.H.: Indications for Major Elective Reconstructive Surgery of the Hip in the Adult. In: *AAOS Instructional Course Lectures*. St. Louis: C.V. Mosby Co., XXIII: 143-149, 1974.
- Davis, N.J., Jennings, J.J., Harris, W.H.: Induced Hypotensive Anesthesia for Total Hip Replacement. *Clin. Orthop.*, 101:93-98, 1974.

- Demirjian, Z., Sara, M., Stulberg, D., Harris, W.H.: Disseminated Intravascular Coagulation in Patients Undergoing Orthopaedic Surgery. *Clin. Orthop.*, 102:174-180, 1974.
- Carlson, E.C., Mann, R.W., Harris, W.H.: A Radio Telemetry Device for Monitoring Cartilage Surface Pressure in the Human Hip. *Biomed. Eng. BME-21:257-264*, 1974.
- Harris, W.H., Malt, R.A.: Late Results of Human Limb Replantation. *J. Trauma*, 14:44-52, 1974.
- Harris, W.H., Heaney, R.P., Weinberg, E.H., Cockin, J., Akins, C.M., Graham, J.: Skeletal Responses of Young Adult and Aged Dogs to Growth Hormone. In: *Proceedings of the 9th European Symposium on Calcified Tissues*. Vienna: Verlag H. Egermann Facta-Publication, Ed. H. Czitober, J. Eschberger. Pp. 75-80, 1973.
- Harris, W.H.: Preliminary Report of Results of Harris Total Hip Replacement. *Clin. Orthop.*, 95:168-173, 1973.
- Coutts, R.D., Harris, W.H., Weinberg, E.H.: Compression Plating: Experimental Study of the Effect on Bone Formation Rates. *Acta Orthop. Scand.*, 44:256-262, 1973.
- Harris, W.H., Sara, S.M., Salzman, E.W., DeSanctis, R.W., Waltman, A.C. Athanasoulis, C.: Impedance Phlebography: A Correlation with Lower Limb Venography in the Diagnosis of Deep Vein Thrombosis. *Surgery* 74:385-389, 1973.
- Harris, W.H.: A "Second Generation" Total Hip Replacement. *Orthop. Clin. Of No. Am.*, 4:513-522, 1973.
- Harris, W.H.: Extensive Exposure of the Hip Joint. *Clin. Orthop.*, 91:58-62, 1973.
- Harris, W.H.: Answers to Dr. Frost's Letter to the Editor. *Calcif. Tiss. Res.*, 10: 254-255, 1972.
- Malt, R.A., Remensnyder, J.P., Harris, W.H.: Long-term Utility of Replanted Arms. *Annals of Surgery* 176: 334-342, 1972.
- Lavorgna, J.J., Burstein, N.A., Schiller, A.L., Harris, W.H.: Carcinogenesis of Plastics Used in Orthopaedic Surgery. *Clin. Orthop.*, 88:223-227, 1972.
- Heaney, R.P., Harris, W.H., Cockin, J., Weinberg, E.H.: Growth Hormone. The Effect on Skeletal Renewal in the Adult Dog. Part II. Mineral Kinetic Studies. *Calcif. Tiss. Res.*, 10:14-22, 1972.
- Harris, W.H., Heaney, R.P., Jowsey, J., Cockin, J., Akins, C., Graham, J., Weinberg, E.H.: Growth Hormone: The Effect on Skeletal Renewal in the Adult Dog. Part I. Morphometric Studies. *Calcif. Tiss. Res.*, 10:1-13, 1972.
- Coutts, R.D., Schiller, A.L., Harris, W.H.: Subclinical Osteomyelitis of the Femoral Head. *Clin. Orthop.*, 86:68-72, 1972.
- Malt, R.W. and Harris, W.H.: Replantation of Limbs. In: *Transplantation*. Philadelphia: Lea and Febiger, Ed. J.S. Najarian and R.L. Simmons, pp. 711-719, 1972.
- Harris, W.H., Salzman, E.W., DeSanctis, R.W., Coutts, R.D.: Prevention of Venous Thromboembolism Following Total Hip Replacement. *JAMA* 220: 1319-1322, 1972.
- Harris, W.H.: Clinical Results Using the Mueller-Charnley Total Hip Prosthesis. *Clin. Orthop.*, 86:95-101, 1972.

- Harris, W.H. and Weinberg, E.H.: Microscopic Method of Measuring Increases in Cortical Bone Volume and Mass. *Calcif. Tissue Res.*, 8:190-196, 1972.
- Harris, W.H.: A New Total Hip Implant. *Clin. Orthop.*, 81:105-113, 1971.
- Graham, J. and Harris, W.H.: Paget's Disease Involving the Hip Joint. *J. Bone and Joint Surg.*, 53-B:650-659, 1971.
- Harris, W.H.: Use of Cup Arthroplasty in Treatment of Severe Osteoarthritis of the Hip. In: *AAOS Instructional Course Lectures*, St. Louis: C.V. Mosby Co. XX: 160-167, 1971.
- Harris, W.H.: Surgical Management of Arthritis of the Hip. *Seminars in Arthritis and Rheumatism*. 1:35-57, 1971.
- Salzman, E.W., Harris, W.H., De Sanctis, R.W.: Reduction in Venous Thromboembolism by Agents Affecting Platelet Function. *N. Engl. J. Med.*, 284:1287-1292, 1971.
- Harris, W.H.: The Incidence and Prevention of Thromboembolic Disease. In: *AAOS Instructional Course Lectures*, St. Louis: C.V. Mosby Co., pp. 36-40, 1970.
- Harris, W.H.: Power Instrumentation for Cup Arthroplasty. *Clin. Orthop.*, 72:219-223, 1970.
- Harris, W.H. and Aufranc, O.E.: A New Splint for Balanced Suspension. *Clin. Orthop.*, 72:216-218, 1970.
- Harris, W.H. and Heaney, R.P.: *Skeletal Renewal and Metabolic Bone Disease*, Boston: Little, Brown and Co., 1970.
- Harris, W.H.: Unusual Application of Compression. *SICOT XI Congress, Mexico*, pp. 521-523, 1969.
- Harris, W.H.: Choice of Anesthetic Agents for Intravenous Regional Anesthesia. *Acta Anesth Scandinav.*, Suppl. XXXVI, pp.47-52, 1969.
- Hamblen, D.L. and Harris, W.H.: Mould Arthroplasty in the Treatment of Septic Arthritis of the Hip. In: *Proceedings of the Royal Society of Medicine*, 62:14, 1969.
- Harris, W.H. and Heaney, R.P.: Effect of Growth Hormone on Skeletal Mass in Adult Dogs. *Nature* 223:403-404, 1969.
- Harris, W.H.: Managing Degenerative Arthritis of the Hip. *Postgrad. Med.*, 45: 242-244, 1969.
- Harris, W.H.: Role of Interochanteric Osteotomy in the Treatment of Arthritis of the Hip. *Surg. Clin. No. Am.*, 49A: 775-778, 1969.
- Harris, W.H.: Surgical Approach and Technique of Cup Arthroplasty. *Surg. Clin. No. Am.*, 763-774, 1969.
- Harris, W.H.: Traumatic Arthritis of the Hip after Dislocation and Acetabular Fractures: Treatment by Mold Arthroplasty. An End-Result Study Using a New Method of Result Evaluation. *J Bone Joint Surg.*, 51-A:737-755, 1969.
- Harris, W.H., Heaney, R.P.: *Skeletal Renewal and Metabolic Bone Disease. A Medical Progress Report.* *N Engl. J. Med.*, 280:193-202, 253-259, 303-311, 1969.
- Harris, W.H., Lavorgna, J., Hamblen, D.L., Haywood, E.A.: The Inhibition of Ossification In Vivo.

Clin. Orthop., 61:52-60, 1968.

- Harris, W.H., Hamblen, D.L., Ojemann, R.G.: Traumatic Disruption of Cervical Intervertebral Disk from Hyperextension Injury. Clin. Orthop., 60:163-167, 1968.
- Harris, W.H., Haywood, E.A., Lavorgna, J., Hamblen, D.L.: Spatial and Temporal Variations in Cortical Bone Formation in Dogs. J. Bone Joint Surg., 50-A: 1118-1128, 1968.
- Harris, W.H., Cole, D.W., Mital, M., Laver, M.B.: Methemoglobin Formation and Oxygen Transport Following Intravenous Regional Anesthesia Using Prilocaine. Anesthesiology, 29:65-69, 1968.
- Harris, W.H., Haywood, E.A., Hamblen, D.L., Lavorgna, J.: Analysis of Covariance of Bone Formation Rates by Specific Skeletal Sites and Over Time. In: Proceedings of the Fifth European Symposium on Calcified Tissues, Bordeaux, Societe d'Edition d'Enseignement Superieur, Editors: G. Milhaud, M. Owen and J.J. Blackwood. Pp. 415-421, 1968.
- Harris, W.H.: A New Lateral Approach to the Hip Joint. J. Bone Joint Surg. 49-A: 891-898, 1967.
- Harris, W.H., Salzman, E.W., DeSanctis, R.W.: The Prevention of Thromboembolic Disease by Prophylactic Anticoagulation. J. Bone Joint Surg., 49-A: 81-89, 1967.
- Harris, W.H. Sinking Prostheses. Surg. Gynecol. Obstet., 123: 1297-1302, 1966.
- Salzman, E.W., Harris, W.H., DeSanctis, R.W.: Anticoagulation for Prevention Thromboembolism Following Fractures of the Hip. N. Engl. J. Med., 275:122-130, 1966.
- Malt, R.A. and Harris, W.H.: Replantation of Limbs. Somerville, NJ, Ethicon, Inc., 1965.
- Harris, W.H., Jones, W.N., Aufranc, O.E.: Fracture Problems. St. Louis: C.V. Mosby Co., 1965.
- Harris, W.H., Slater, E.M., Bell, H.M.: Regional Anesthesia by the Intravenous Route. JAMA, 194:1273-1276, 1965.
- Harris, W.H. and Aufranc, O.E.: Mold Arthroplasty in the Treatment of Hip Fractures Complicated by Sepsis. J. Bone Joint Surg., 47-A:31-41, 1965.
- Harris, W.H. and Nagant de Deuxchaisnes, C.: Controlled In Vivo Inhibition of Bone Formation. In: Proceedings of the Second European Symposium on Calcified Tissues, University of Liege, Ed. L.J. Richelle and M.J. Dallegmagne, pp. 193-197, 1965.
- Harris, W.H., Travis, D.F., Friberg, U., Radin, E.: The In Vivo Inhibition of Bone Formation by Alizarin Red S. J. Bone Joint Surg., 46-A: 493-508, 1964.
- Jacobs, R., Harris, W.H., Katz, E.P. and Glimcher, M.J.: The Interaction Between Tetracycline and Reconstituted Guinea-Pig-Skin Collagen In Vitro. Biochim Biophys Acta 86:579-587, 1964.
- Bell, H.M., Slater, E.M. and Harris W.H.: Regional Anesthesia with Intravenous Lidocaine. JAMA 186: 544-549, 1963.
- Harris, W.H., Jackson, R.H., and Jowsey, J.: The in vivo Distribution of Tetracyclines in Canine Bone. J. Bone Joint Surg., 44-A: 1308-1320, 1962.
- Harris, W.H., Dudley, H.R., Jr., and Barry, R.J.: The Natural History of Fibrous Dysplasia. J. Bone Joint Surg., 44-A: 207-233, 1962.

- Harris, William H.: A Microscopic Method of Determining Rates of Bone Growth. *Nature* 188: 1038-1039, 1960.
- Cohen, J. and Harris, W.H.: The Three-Dimensional Anatomy of Haversian Systems. *J. Bone Joint Surg.*, 40-A: 419-434, 1958.
- Horst, J.R. and Harris, W.H.: Patellectomy and Fascial Grafting in Certain Cases of Long Standing Disruption of the Quadriceps Mechanism. *J. Bone Joint Surg.*, 39-A: 403-407, 1957.

Reviews and Book Chapters

- Harris WH. The last decade in THA: unsettling and disappointing. *J Arthroplasty*. 29(3):648 (2014 Mar).
- Sillesen, N, Troelsen, A, Malchau, E, Malchau, H. Book Chapter: Basic Science of Bone Cementing. *Adult Hip*, 3rd edition, 2012.
- Bragdon, C, Doerner, M, Malchau, H. Book Chapter in *Tribology in Total Hip Arthroplasty: Wear Analysis of Highly Cross-linked Polyethylene in Total Hip Arthroplasty*, 2011.
- Muratoglu OK, Oral E. Ultrahigh Molecular Weight Polyethylene for Total Joint Implants. In Ducheyne P ed. *Comprehensive Biomaterials*, Elsevier. (6): 29-49 (2011).
- Oral E, Bracco P. Vitamin E-Stabilized UHMWPE for Total Joint Implants: A Review. *Clinical Orthopaedic Related Research*. 469(8):2286-93 (2011).
- Oral E, Muratoglu OK. Vitamin E diffused, highly crosslinked UHMWPE: a review. *Int Orthop*. 35(2):215-23 (2011 Feb).
- Bashyal R, Eberhardt J, Malchau H. Book Chapter: Acetabular Component Cementation, 2011.
- Eberhardt J, Basyhal R, Malchau H. Book Chapter: Femoral Component Cementation, 2011
- Muratoglu OK, Oral E. Ultrahigh Molecular Weight Polyethylene for Total Joint Implants. In Ducheyne P, ed. *Comprehensive Biomaterials*, Elsevier. In Print; 2010.
- Oral E. Polymeric bearing surfaces for total joint replacements. In Lysaght M (dec.), Webster, T eds. *Biomaterials for Artificial Organs*, Woodhead, 2010.
- Huddleston, J, Geller, J, Burke, D, Malchau, H. Book Chapter: Abductor Muscles and Greater Trochanter Complications, 2010.
- Muratoglu OK. Highly Cross-linked and Melted UHMWPE. *The UHMWPE Biomaterials Handbook: Ultra-High Molecular Weight Polyethylene in Total Joint Replacements and Medical Devices (Second Edition)*. S. M. Kurtz, Editor. 2009. 197-203.
- Oral, E and Muratoglu OK. Highly cross-linked UHMWPE Doped with Vitamin-E. *The UHMWPE Biomaterials Handbook: Ultra-High Molecular Weight Polyethylene in Total Joint Replacements and Medical Devices (Second Edition)*. S. M. Kurtz, Editor. 2009. 221-233.
- Muratoglu OK, E Oral. Vitamin E-doped, highly cross-linked UHMWPE. In Kurtz S ed. *The UHMWPE Handbook: 2nd ed.*, Elsevier, 2009.
- Bragdon CR, 'Clinical Surveillance of UHMWPE Using Radiographic Methods': UHMWPE

Biomaterials Handbook Ultra-High Molecular Weight Polyethylene in Total Joint Replacement and Medical Devices 2nd Edition Steven Kurtz editor; Elsevier pp. 423-432, 2009.

- Harris WH. The first 50 years of total hip arthroplasty: lessons learned. *Clin Orthop Relat Res.* 467(1):28-31 (2009 Jan).
- Harris WH, Muratoglu OK. A review of current cross-linked polyethylenes used in total joint arthroplasty. *Clin Orthop Relat Res.* 430:46-52 (2005 Jan).
- Santavirta S, Böhler M, Harris WH, Konttinen YT, Lappalainen R, Muratoglu O, Rieker C, Salzer M. Alternative materials to improve total hip replacement tribology. *Acta Orthop Scand.* 74(4):380-8 (2003 Aug).
- Muratoglu OK, Mark A, Vittetoe DA, Harris WH, Rubash HE. Polyethylene damage in total knees and use of highly crosslinked polyethylene. *J Bone Joint Surg Am.* 85-A(1 suppl):S7-13 (2003).
- Harris WH. My first 50 years of orthopaedic surgery. *J Arthroplasty.* 16(8 suppl 1):2-7 (2001 Dec).
- Kurtz SM, Muratoglu OK, Evans M, Edidin AA. Advances in the processing, sterilization, and crosslinking of ultra-high molecular weight polyethylene for total joint arthroplasty. *Biomaterials.* 20(18):1659-88 (1999 Sep).
- Harris WH. Long-term results of cemented femoral stems with roughened precoated surfaces. *Clin Orthop Relat Res.* 355:137-43 (1998 Oct).