

**Publikationen / Veröffentlichungen von Prof. Dr. med. Rudi G. Bitsch:**

1. Three dimensional gait analysis in patients with symptomatic component mal-rotation after total knee arthroplasty. Maier MW, Aschauer S, Wolf SI, Dreher T, Merle C, **Bitsch RG**. Int Orthop. 2018 Sep 10. doi: 10.1007/s00264-018-4118-1.
2. Comparison of the stability of three fixation techniques between porous metal acetabular components and augments. Beckmann NA, **Bitsch RG**, Gondan M, Schonhoff M, Jaeger S. Bone Joint Res. 2018 May 5;7(4):282-288. doi: 10.1302/2046-3758.74.BJR-2017-0198.R1. eCollection 2018 Apr.
3. Can intraoperative measurement of bone quality help in decision making for cementless unicompartmental knee arthroplasty? Eckert JA, Jaeger S, Klotz MC, Schwarze M, **Bitsch RG**. Knee. 2018 Aug;25(4):609-616. doi: 10.1016/j.knee.2018.03.013. Epub 2018 May 20.
4. The influence of the twin peg design on femoral Interface temperature and maximum load to failure in cemented Oxford unicompartmental knee arthroplasty. Reiner T, Schwarze M, Panzram B, Klotz MC, **Bitsch RG**, Jaeger S. Clin Biomech (Bristol, Avon). 2018 Jun;55:23-27. doi: 10.1016/j.clinbiomech.2018.04.003. Epub 2018 Apr 5.
5. Treatment of High-Grade Acetabular Defects: Do Porous Titanium Cups Provide Better Stability Than Traditional Titanium Cups When Combined With an Augment? Beckmann NA, **Bitsch RG**, Janoszka MB, Klotz MC, Bruckner T, Jaeger S. J Arthroplasty. 2018 Jun;33(6):1838-1843. doi: 10.1016/j.arth.2018.01.068. Epub 2018 Feb 5.
6. Comparison of the Primary Stability of a Porous Coated Acetabular Revision Cup With a Standard Cup. Beckmann NA, Jaeger S, Janoszka MB, Klotz MC, Bruckner T, **Bitsch RG**. J Arthroplasty. 2018 Feb;33(2):580-585. doi: 10.1016/j.arth.2017.09.023. Epub 2017 Sep 20.
7. Cementing a polyethylene cup into a well fixed acetabular metal-on-metal resurfacing component? An experimental investigation. Klotz MCM, Jäger S, Kretzer JP, Beckmann NA, Thomsen M, **Bitsch RG**. Hip Int. 2017 Jul 25;27(4):373-377. doi: 10.5301/hipint.5000474. Epub 2017 Feb 3.
8. Letter to the Editor - "Cementing the femoral component in total knee arthroplasty: Which technique is the best?" by Michaël Vaninbroukx et al. Schwarze M, Borsig V, **Bitsch RG**, Eckert JA, Jäger S. Knee. 2017 Mar;24(2):491-493. doi: 10.1016/j.knee.2016.08.004. Epub 2017 Jan 18. No abstract available.
9. Failure of Polyethylene Inlays in Cementless Total Hip Arthroplasty: A Retrieval Analysis. Mueller U, Lee C, Heisel C, Thomsen M, **Bitsch RG**, Kretzer JP. Biomed Res Int. 2016;2016:5496396. Epub 2016 Aug 31.
10. Femoral rotation in total knee arthroplasty: a comparison of patient individualized jigs with gap balancing in relation to anatomic landmarks. Fitz W, Jäger S, Rieger JS, Seebach E, **Bitsch RG**. Knee

Surg Sports Traumatol Arthrosc. 2017 Jun;25(6):1712-1719. doi: 10.1007/s00167-015-3836-9. Epub 2015 Oct 24.

11. Increased antibiotic release and equivalent biomechanics of a spacer cement without hard radio contrast agents. **Bitsch RG**, Kretzer JP, Vogt S, Büchner H, Thomsen MN, Lehner B. Diagn Microbiol Infect Dis. 2015 Oct;83(2):203-9. doi: 10.1016/j.diagmicrobio.2015.06.019. Epub 2015 Jul 2.

12. Structural Allografts and Porous Metal Cones - Major Findings Remain Unchanged. In reply. Beckmann NA, **Bitsch RG**. J Arthroplasty. 2015 Jul;30(7):1289-90. doi: 10.1016/j.arth.2015.01.019. Epub 2015 Jan 27. No abstract available.

13. Mesenchymal stromal cell implantation for stimulation of long bone healing aggravates Staphylococcus aureus induced osteomyelitis. Seebach E, Holschbach J, Buchta N, **Bitsch RG**, Kleinschmidt K, Richter W. Acta Biomater. 2015 Jul;21:165-77. doi: 10.1016/j.actbio.2015.03.019. Epub 2015 Mar 22.

14. Cement applicator use for hip resurfacing arthroplasty. Jaeger S, Rieger JS, Obermeyer B, Klotz MC, Kretzer JP, **Bitsch RG**. Med Eng Phys. 2015 May;37(5):447-52. doi: 10.1016/j.medengphy.2015.02.007. Epub 2015 Mar 12.

15. Loosening detection of the femoral component of hip prostheses with extracorporeal shockwaves: a pilot study. Rieger JS, Jaeger S, Kretzer JP, Rupp R, **Bitsch RG**. Med Eng Phys. 2015 Feb;37(2):157-64. doi: 10.1016/j.medengphy.2014.11.011. Epub 2014 Dec 29.

16. Treatment of severe bone defects during revision total knee arthroplasty with structural allografts and porous metal cones-a systematic review. Beckmann NA, Mueller S, Gondan M, Jaeger S, Reiner T, **Bitsch RG**. J Arthroplasty. 2015 Feb;30(2):249-53. doi: 10.1016/j.arth.2014.09.016. Epub 2014 Oct 20. Review.

17. Bone quality assessment for total hip arthroplasty with intraoperative trabecular torque measurements. Klotz MC, Beckmann NA, **Bitsch RG**, Seebach E, Reiner T, Jäger S. J Orthop Surg Res. 2014 Nov 13;9:109. doi: 10.1186/s13018-014-0109-0.

18. The stability of the femoral component in the Oxford unicompartmental knee replacement: a comparison of single and twin peg designs. Reiner T, Jaeger S, Schwarze M, Klotz MC, Beckmann NA, **Bitsch RG**. Bone Joint J. 2014 Jul;96-B(7):896-901. doi: 10.1302/0301-620X.96B7.33478.

19. Mechanical properties of a cemented porous implant interface. Beckmann NA, **Bitsch RG**, Seeger JB, Klotz MC, Kretzer JP, Jaeger S. Acta Orthop. 2014 Sep;85(5):531-7. doi: 10.3109/17453674.2014.919557. Epub 2014 May 5.

20. The protective effect of pulsed lavage against implant subsidence and micromotion for cemented tibial unicompartmental knee components: an experimental cadaver study. Jaeger S, Rieger JS, Bruckner T, Kretzer JP, Clarius M, **Bitsch RG**. J Arthroplasty. 2014 Apr;29(4):727-32. doi: 10.1016/j.arth.2013.09.020. Epub 2013 Nov 1.

21. Good accuracy of the Phase III Oxford Mobile Bearing Unicompartmental Knee Instrumentation. **Bitsch RG**, Keudell Av, Losina E, Fitz W. *Acta Orthop.* 2013 Aug;84(4):406-9. doi: 10.3109/17453674.2013.813801. Epub 2013 Jun 25.
22. Tibial cementing in UKA: a three-dimensional analysis of the bone cement implant interface and the effect of bone lavage. Jaeger S, Seeger JB, Schuld C, **Bitsch RG**, Clarius M. *J Arthroplasty.* 2013 Oct;28(9 Suppl):191-4. doi: 10.1016/j.arth.2013.05.014. Epub 2013 Jun 21.
23. Loosening after acetabular revision: comparison of trabecular metal and reinforcement rings. A systematic review. Beckmann NA, Weiss S, Klotz MC, Gondan M, Jaeger S, **Bitsch RG**. *J Arthroplasty.* 2014 Jan;29(1):229-35. doi: 10.1016/j.arth.2013.04.035. Epub 2013 May 27. Review.
24. The effect of bone lavage on femoral cement penetration and interface temperature during Oxford unicompartmental knee arthroplasty with cement. Seeger JB, Jaeger S, **Bitsch RG**, Mohr G, Röhner E, Clarius M. *J Bone Joint Surg Am.* 2013 Jan 2;95(1):48-53. doi: 10.2106/JBJS.K.01116.
25. What is the upper limit of cement penetration for different femoral hip resurfacing components? **Bitsch RG**, Obermeyer BJ, Rieger JS, Jäger S, Schmalzried TP, Bischel OE.
26. Multiple Acetabular Revisions in THA - Poor Outcome Despite Maximum Effort. Bischel O, Seeger JB, Krüger M, **Bitsch RG**. *Open Orthop J.* 2012;6:488-94. doi: 10.2174/1874325001206010488. Epub 2012 Nov 16. Erratum in: *Open Orthop J.* 2012 Dec 12;6:588. Seeger, Jb [corrected to Seeger, J B]; Krüge, M [corrected to Krüger, M]; Bitsch, Bg [corrected to Bitsch, R G].
27. The influence of the femoral force application point on tibial cementing pressure in cemented UKA: an experimental study. Jaeger S, Helling A, **Bitsch RG**, Seeger JB, Schuld C, Clarius M. *Arch Orthop Trauma Surg.* 2012 Nov;132(11):1589-94. doi: 10.1007/s00402-012-1582-8. Epub 2012 Jul 13.
28. A vibrational technique for diagnosing loosened total hip endoprostheses: an experimental sawbone study. Rieger JS, Jaeger S, Schuld C, Kretzer JP, **Bitsch RG**. *Med Eng Phys.* 2013 Mar;35(3):329-37. doi: 10.1016/j.medengphy.2012.05.007. Epub 2012 Jun 4.
29. Results of 5 to 10-year follow-up after hip resurfacing. A systematic analysis of the literature on long-term results. Klotz MC, Breusch SJ, Hassenpflug M, **Bitsch RG**. *Orthopade.* 2012 Jun;41(6):442-51. doi: 10.1007/s00132-012-1899-6. Review. German.
30. The importance of pulsed lavage on interface temperature and ligament tension force in cemented unicompartmental knee arthroplasty. Clarius M, Seeger JB, Jaeger S, Mohr G, **Bitsch RG**. *Clin Biomech (Bristol, Avon).* 2012 May;27(4):372-6. doi: 10.1016/j.clinbiomech.2011.10.006. Epub 2011 Nov 1.

31. The influence of cementing technique in hip resurfacing arthroplasty on the initial stability of the femoral component. **Bitsch RG**, Jäger S, Lürssen M, Loidolt T, Schmalzried TP, Weiss S. *Int Orthop*. 2011 Dec;35(12):1759-65. doi: 10.1007/s00264-011-1212-z. Epub 2011 Feb 7.
32. Influence of cementing the pin on resistance to fracture in hip resurfacing. Schlegel UJ, Siewe J, **Bitsch RG**, Koebke J, Eysel P, Morlock MM. *Clin Biomech (Bristol, Avon)*. 2011 Feb;26(2):136-40. doi: 10.1016/j.clinbiomech.2010.09.008. Epub 2010 Oct 8.
33. Are patients' expectations of hip and knee arthroplasty fulfilled? A prospective study of 130 patients. Suda AJ, Seeger JB, **Bitsch RG**, Krueger M, Clarius M. *Orthopedics*. 2010 Feb;33(2):76-80. doi: 10.3928/01477447-20100104-07.
34. Influence of bone density on the cement fixation of femoral hip resurfacing components. **Bitsch RG**, Jäger S, Lürssen M, Loidolt T, Schmalzried TP, Clarius M. *J Orthop Res*. 2010 Aug;28(8):986-91. doi: 10.1002/jor.21094.
35. Cementing techniques for hip resurfacing arthroplasty: in vitro study of pressure and temperature. **Bitsch RG**, Loidolt T, Heisel C, Schmalzried TP. *J Arthroplasty*. 2011 Jan;26(1):144-51. doi: 10.1016/j.arth.2009.10.011. Epub 2010 Jan 22.
36. Femoral fixation pattern in cemented Oxford unicompartmental knee arthroplasty--an experimental cadaver study. Clarius M, Mohr G, Jaeger S, Seeger JB, **Bitsch RG**. *Knee*. 2010 Dec;17(6):398-402. doi: 10.1016/j.knee.2009.11.006. Epub 2009 Dec 14.
37. Primary rotational stability of cylindrical and conical revision hip stems as a function of femoral bone defects: an in vitro comparison. Jakubowitz E, **Bitsch RG**, Heisel C, Lee C, Kretzer JP, Thomsen MN. *J Biomech*. 2008 Oct 20;41(14):3078-84. doi: 10.1016/j.jbiomech.2008.06.002. Epub 2008 Sep 21.
38. Cementing techniques for hip resurfacing arthroplasty: development of a laboratory model. **Bitsch RG**, Loidolt T, Heisel C, Schmalzried TP. *J Bone Joint Surg Am*. 2008 Aug;90 Suppl 3:102-10. doi: 10.2106/JBJS.H.00622.
39. Acetabular reinforcement rings in revision total hip arthroplasty: midterm results in 298 cases. Schlegel UJ, **Bitsch RG**, Pritsch M, Aldinger PR, Mau H, Breusch SJ. *Orthopade*. 2008 Sep;37(9):904, 906-13. doi: 10.1007/s00132-008-1314-5. German.
40. Reduction of osteolysis with use of Marathon cross-linked polyethylene. A concise follow-up, at a minimum of five years, of a previous report. **Bitsch RG**, Loidolt T, Heisel C, Ball S, Schmalzried TP. *J Bone Joint Surg Am*. 2008 Jul;90(7):1487-91. doi: 10.2106/JBJS.F.00991.
41. Cementing techniques for hip resurfacing arthroplasty. What do we know?. **Bitsch RG**, Schmalzried TP. *Orthopade*. 2008 Jul;37(7):667-71. doi: 10.1007/s00132-008-1299-0. Review. German.

42. Ion production and excretion in a patient with a metal-on-metal bearing hip prosthesis. A case report. **Bitsch RG**, Zamorano M, Loidolt T, Heisel C, Jacobs JJ, Schmalzried TP. *J Bone Joint Surg Am.* 2007 Dec;89(12):2758-63. No abstract available.
43. In vivo failure analysis of intramedullary cement restrictors in 100 hip arthroplasties. **Bitsch RG**, Breusch SJ, Thomsen M, Schneider S, Heisel C. *Acta Orthop.* 2007 Aug;78(4):485-90.
44. The indication for gamma probe-guided surgery of spinal osteoid osteomas. Hempfing A, Hoffend J, **Bitsch RG**, Bernd L. *Eur Spine J.* 2007 Oct;16(10):1668-72. Epub 2007 May 4.
45. Femoral cementing technique for hip resurfacing arthroplasty. **Bitsch RG**, Heisel C, Silva M, Schmalzried TP. *J Orthop Res.* 2007 Apr;25(4):423-31.
46. Radiofrequency ablation (RFA): development of a flow model for bovine livers for extensive bench testing. Lubienski A, **Bitsch RG**, Lubienski K, Kauffmann G, Duex M. *Cardiovasc Intervent Radiol.* 2006 Nov-Dec;29(6):1068-72.
47. Mueller reinforcement rings in acetabular revision: outcome in 164 hips followed for 2-17 years. Schlegel UJ, **Bitsch RG**, Pritsch M, Clauss M, Mau H, Breusch SJ. *Acta Orthop.* 2006 Apr;77(2):234-41.
48. The cemented MS-30 stem. A multi-surgeon series of 333 consecutive cases. Clauss M, Reitzel T, Pritsch M, Schlegel UJ, **Bitsch RG**, Ewerbeck V, Mau H, Breusch SJ. *Orthopade.* 2006 Jul;35(7):776-83. German.
49. Effects of vascular perfusion on coagulation size in radiofrequency ablation of ex vivo perfused bovine livers. **Bitsch RG**, Dux M, Helmberger T, Lubienski A. *Invest Radiol.* 2006 Apr;41(4):422-7.
50. Osteoid osteoma in an ex vivo animal model: temperature changes in surrounding soft tissue during CT-guided radiofrequency ablation. **Bitsch RG**, Rupp R, Bernd L, Ludwig K. *Radiology.* 2006 Jan;238(1):107-12. Epub 2005 Nov 17.
51. Clinical correlation of femoral component migration in hip resurfacing arthroplasty analyzed by Einzel-Bild-Röntgen-analyze-femoral component analysis. Fowble VA, Schuh A, Hoke R, **Bitsch RG**, Beaulé PE. *Orthop Clin North Am.* 2005 Apr;36(2):243-50, x.
52. Long-term results of interventional treatment of large unresectable hepatocellular carcinoma (HCC): significant survival benefit from combined transcatheter arterial chemoembolization (TACE) and percutaneous ethanol injection (PEI) compared to TACE monotherapy. Lubienski A, **Bitsch RG**, Schemmer P, Grenacher L, Dux M, Kauffmann GW. *Rofo.* 2004 Dec;176(12):1794-802. German.