

- de Carvalho MC, Zuolo ML. Orifice locating with a microscope. *J Endod.* 2000 Sep; 26(9):532-534.
- Perrin Ph, Jacky D, Hotz P. Das Operationsmikroskop in der zahnärztlichen Allgemeinpraxis. *Schweiz Monatsschr Zahnmed.* 2000; 110(9):946-960.
- Sheets CG, Paquette JM. Practical applications of the clinical microscope in a restorative dental practice. *Compend Contin Educ Dent.* 2000 Dec; 21(12):1082-1084, 1086-1088, 1090.
- van As G. Using the surgical operating microscope in general practice. *Contemp Esthet Rest Pract.* 2000 Jan; 4(1):34-40.
- West JD. The role of the microscope in 21st century endodontics: Visions of a new frontier. *Dent Today.* 2000 Dec; 19(12):62-64,66-69.
- Wright RJ. Redefining the principles of restorative dentistry: lessons from microscope-assisted dentistry. *Dent Today.* 2000 Sep; 19(9):66-68, 70-75.
- Burkhardt R. Neue Wege in der plastisch-parodontalen Chirurgie. *Schweiz Monatsschr Zahnmed.* 1999; 109(6):639-655.
- Cruci P. An operating microscope in general practice. *Dent Pract.* 1999; 37(9):1-5.
- Friedman MJ, Mora AF, Schmidt R. Microscope-assisted precision dentistry. *Compend Contin Educ Dent.* 1999 Aug; 20(8):723-728, 730-731, 735-736.
- Piontkowski PK. Consideration for integrating a dental operating microscope into the general practice. *Dent Today.* 1999 Oct; 18(10):92-95.
- Rubinstein RA, Kim S. Short-term observations of the results of endodontic surgery with the use of a surgical operating microscope and Super-EBA as root-end filling material. *J Endod.* 1999 Jan; 25(1):43-48.
- Carr GB. Magnification and illumination in endodontics. *Hardin JF. Clarks Clin Dent.* 1998; 4:1-14.
- Khayat BG. The use of magnification in endodontic therapy: The operating microscope. *Pract Periodont Aesthet Dent.* 1998; 10(1):137-144.
- Kimmel K. Optimales Sehen und Erkennen: Dentalmikroskopie mit neuen Perspektiven. *Zahnärztl Mitt.* 1998; 88(18):80.
- Mora AF. Restorative microdentistry: a new standard for the twenty-first century. *Prosthet Dent Rev.* 1998; 1(3).
- Paquette JM. The clinical microscope: making excellence easier. *Contemp Esthet Rest Pract.* 1998 Oct; 2(10):12-20.
- Kim S. Principles of endodontic microsurgery. *Dent Clin North Am.* 1997 Jul; 41(3):481-497.
- Koch K. The microscope. Its effect on your practice. *Dent Clin North Am.* 1997 Jul; 41(3):619-626.
- Ferreira Murgel CA, Gondim Júnior E, de Sousa Filho J. Microscópio cirúrgico: a busca da excelência na clínica odontológica. *Rev Assoc Paul Cir Dent.* 1997 Jan-Feb; 51(1):31-35.
- Rubinstein RA. Endodontic microsurgery and the surgical operating microscope. *Compend Contin Educ Dent.* 1997 Jul; 18(7):659-664.
- Rubinstein RA. The anatomy of the surgical operating microscope and operating positions. *Dent Clin North Am.* 1997 Jul; 41(3):391-413.
- Saunders WP, Saunders EM. Conventional endodontics and the operating microscope. *Dent Clin North Am.* 1997 Jul; 41(3):415-428.
- Michaelides PL. Use of the operating microscope in dentistry. *J Calif Dent Assoc.* 1996 Oct; 24(10):45-50.
- Musikant BL, Cohen BI, Deutsch AS. The surgical microscope, Not just for the specialist. *N Y State Dent J.* 1996 Oct; 62(8):33-35.
- Velvart P. Das Operationsmikroskop – Neue Dimensionen in der Endodontie. *Schweiz Monatsschr Zahnmed.* 1996; 106(4):356-367.
- Beer R, Mayerhöfer G. Fortschritte in der Endodontie. Die Operationsmikroskop-gestützte Wurzelkanalbehandlung. *Quintessenz.* 1995; 46:1437-1450.
- Mounce R. Surgical operating microscopes in endodontics: The paradigm shift. *Gen Dent.* 1995; 43:346-349.
- Feldman M. Microscopic surgical endodontics. *NY State Dent J.* 1994; 60(8):43-45.
- Izawa T, Kim S, Suda H, Pecora G, Rubinstein RA. Microscopic-endodontic surgery. *Quintessence Int (Japan).* 1994; 13:54-55.
- Ruddle CJ. Endodontic perforation repair using the surgical operating microscope. *Dent Today.* 1994 May; 13(5):49-53.
- Pecora G, Andreana S. Use of dental operating microscope in endodontic surgery. *Oral Surg Oral Med Oral Pathol.* 1993 Jun; 75(6):751-758.
- Pecora G, Covani U, Giardino L, Rubinstein RA. Valutazioni clinico-statistiche sull'uso dello stereomicroscopio in odontoiatría. *Riv Ital D Stoma.* 1993; 8:425-431.
- Carr GB. Advanced techniques and visual enhancement for endodontic surgery. *Endod Rep.* 1992; 7:6-9.
- Carr GB. Microscopes in edodontics. *J Calif Dent Assoc.* 1992 Oct; 20(11):55-61.
- Rubinstein RA. New horizons in endodontics surgery. Part I: The operating microscope. *Oak Country (MI) Dent Rev.* 1991; 30(12):7-19.
- Linares JM. The operating microscope and dentistry. *Chir Dent Fr.* 1989 Jun 22-29; 59(478-479):59-60.
- Boussens J, Ducamin JP. La microchirurgie dentaire (M.C.D.). *Quintessence Int.* 1982;6:1.
- Apotheker H, Jako GJ. A microscope for use in dentistry. *J Microsurg.* 1981 Fall; 3(1):7-10.

The Dental Microscope in Literature

A List of Publications and Reprints



EN_30_021_2011 Printed in Germany AW-CZ-XI/2009 To
Printed on environmentally-friendly paper.

Carl Zeiss Surgical GmbH

A Carl Zeiss Meditec Company
Carl-Zeiss-Strasse 22
73447 Oberkochen
Germany

Fax: +49 (0) 73 64/20-48 23
surgical@meditec.zeiss.com
www.meditec.zeiss.com/dentistry
www.meditec.zeiss.com/contacts



The microscope has redefined the concept of visualization in dentistry. Particularly in the field of endodontics, the microscope is now generally recognized as an essential element in the dentist's daily armamentarium. Beyond the endodontic practice, the role of the microscope has received increased attention in general dentistry to further enhance the clinician's quality of work, obtain aesthetic outcomes and conserve long-term dental health for patients. The purpose of the following list of publications is to describe the main applications of the dental microscope today. The individual articles address different areas of dental practice and provide interesting insights into the benefits and various fields of application of the dental microscope. The shown list does not lay any claim to completeness.

Papers provided by Carl Zeiss, either as reprints or as part of a compendium:

- Shakibaie-M. B., Microscope-guided external sinus floor elevation (MGES) – a new minimally invasive surgical technique. *Implantologie* 2008; 16(1):21-30.
- Doornbusch H, Veenstra K. Frequently asked questions about the dental microscope. in: *The Microscope in Dentistry*. Published by Carl Zeiss Surgical GmbH, Oberkochen, Germany, 2007; 8-9.
- Gänzler W. The advantages of using a dental microscope in restorative dentistry – a practically oriented report. in: *The Microscope in Dentistry*. Published by Carl Zeiss Surgical GmbH, Oberkochen, Germany, 2007; 11-15.
- Clauder T. The dental microscope: An indispensable tool in endodontic practice. in: *The Microscope in Dentistry*. Published by Carl Zeiss Surgical GmbH, Oberkochen, Germany, 2007; 16-19.
- Hürzeler MB, von Mohrenschildt S. The dental microscope: Modern techniques in periodontology give the patient a new smile. in: *The Microscope in Dentistry*. Published by Carl Zeiss Surgical GmbH, Oberkochen, Germany, 2007; 20-21.
- Burkhardt R. Use of the dental microscope in plastic periodontal therapy – evolution or revolution. in: *The Microscope in Dentistry*. Published by Carl Zeiss Surgical GmbH, Oberkochen, Germany, 2007; 22-25.
- Tan PLB. How the dental microscope offers powerful perspectives for digital visualization. in: *The Microscope in Dentistry*. Published by Carl Zeiss Surgical GmbH, Oberkochen, Germany, 2007; 26-27.
- Burkhardt R, Lang NP. Coverage of localized gingival recessions: comparison of micro- and macrosurgical techniques. *J Clin Periodontol*. 2005 Mar; 32(3):287-293.
- Mora AF. Enhancing ergonomics and workflow in microdentistry: OPMI pico with MORA Interface. Publication for the IDS 2005. Published by Carl Zeiss Surgical GmbH, Oberkochen, Germany, 2005.
- Kalla R, Kalla V. Das Mikroskop in der Zahnarztpraxis. *Quintessenz*. 2005; 56:281-289; 391-404.
- Richter W. The Use of the Surgical Microscope in Endodontics. *BZB*. 2002; 5:1-4.
- Baumann MA. Microscopy in endodontics. *ZMK*. 2000; 15:720-728.
- Jahn T. Microdentistry – the new dimension in restorative dentistry. Published by Carl Zeiss Surgical GmbH, Oberkochen, Germany, 1999.
- Velvart P. Das Operationsmikroskop in der Wurzelspitzenresektion – Teil I: Die Resektion. *Schweiz Monatsschr Zahnmed*. 1997; 107(6):506-521.
- Velvart P. Das Operationsmikroskop in der Wurzelspitzenresektion – Teil II: Die retrograde Versorgung. *Schweiz Monatsschr Zahnmed*. 1997; 107(11):968-983.

Papers published in periodicals; article copyright remains with the publisher, society or author(s) as specified within the respective article:

- Arnold M., The dental microscope – basis for new and proven methods in root canal treatment. *ENDO (Lond Engl)* 2009; 3(3):205-214.
- Cortellini P, Nieri M, Prato GP, Tonetti MS. Single minimally invasive surgical technique with an enamel matrix derivative to treat multiple adjacent intra-bony defects: clinical outcomes and patient morbidity. *J Clin Periodontol*. 2008 Jul; 35(7):605-613.
- Gänzler W. Behandlung komplexer Wurzelsysteme – ein praxisbewährtes Konzept. *Zahn Prax*. 2008; 11(3):180-189.
- Guo FQ, Gao YS, Niu F, Sun Y. Treatment of teeth with open canal system using mineral trioxide aggregate as apical barrier under the dental operating microscope. *Shanghai Kou Qiang Yi Xue*. 2008 Apr; 17(2):129-131.
- Happe A, Günther S. Ultima Ratio – Die mikroskopische Endochirurgie. *Endodontie J*. 2008 Mar; 7(1):10-16.
- Hilger R. Ergonomisches Arbeiten mit dem Behandlungsmikroskop. *Endodontie J*. 2008 Mar; 7(1):18-27.
- Kersten DD, Mines P, Sweet M. Use of the microscope in endodontics: results of a questionnaire. *J Endod*. 2008 Jul; 34(7):804-807.
- Moura Jr JR. Operating microscopes in restorative dentistry: The pursuit of excellence. *Aesthet Dent Today*. 2008 Jan; 2(1):29-33.
- Barrington CM. Intra-operative digital photography with the dental operating microscope. *Tex Dent J*. 2007 Oct; 124(10):1050-1051.
- García-Calderón M, Torres-Lagares D, Calles-Vázquez C, Usón-Gargallo J, Gutiérrez-Pérez J-L. The application of microscopic surgery in dentistry. *Med Oral Patol Oral Cir Bucal*. 2007 Jul; 12(4):E311-E316.
- Kratchmann SI. Endodontic microsurgery. *Compend Contin Educ Dent*. 2007 Jul; 28(7):399-405.
- Mounce R. Il microscopio operatorio. Ampliare i confini del possibile in odontoiatria. *l'informatore endodontico*. 2007; 10(2):28-37.
- Tibbetts LS, Shanelec DA. A review of the principles and practice of periodontal microsurgery. *Tex Dent J*. 2007 Feb; 124(2):188-204.
- Tzanetakos GN, Lagoudakos TA, Kontakiotis EG. Endodontic treatment of mandibular second premolar with four canals using operating microscope. *J Endod*. 2007 Mar; 33(3):318-321.
- Waterhouse C. Integrating a dental microscope in general practice. *Australasian Dentist*. 2007 Sep-Oct; 22(5):34-35.
- Worschech CC. Microscopia operatória na odontologia: como a magnificação pode aprimorar a habilidade técnica e a comunicação do profissional com o paciente. *R Dental Press Estét*. 2007; 4(4):22-31.
- Worschech CC, Moura Jr JR, Fonseca DM. Microoperative dentistry: Why do it? *Quintessence Dent Technol*. 2007; 30:199-205.
- Yao LL, Gao YS, Niu F, Wang Y, Zhang FH. Evaluation of the use of dental operating microscope in the management of blocked canals. *Shanghai Kou Qiang Yi Xue*. 2007 Aug; 16(4):395-398.
- Courtinho Fiho T, Cerda RSL, Gurgel Filho ED, Deus GA, Magalhães KM. The influence of the surgical operating microscope in locating the mesiolingual canal orifice: a laboratory analysis. *Braz Oral Res*. 2006; 20(1):59-63.
- de Campos GV, Bittencourt S, Sallum AW, Nociti Júnior FH, Sallum EA, Casati MZ. Achieving primary closure and enhancing aesthetic with periodontal microsurgery. *Pract Proced Aesthet Dent*. 2006 Aug; 18(7):449-454.
- Ling JQ, Wie X. Nonsurgical micro-endodontics and its outcome. *Shanghai Kou Qiang Yi Xue*. 2006 Feb; 15(1):1-6.
- Mounce R. The surgical operating microscope: Pushing the boundaries of the possible in dentistry. *Dent Today*. 2006 Oct; 25(10):108; 110; 112-115.
- Tsesis I, Rosen E, Schwartz-Arad D, Fuss Z. Retrospective evaluation of surgical endodontic treatment: Traditional versus modern technique. *J Endod*. 2006 May; 32(5):412-416.
- Clark DJ. Shaping and restoring ovoid canal systems. *Pract Periodont Aesthet Dent*. 2005; 5(2 Suppl):9-13.
- Clark DJ. The big push to clinical microscopes for esthetic dentistry. *Contemp Esthet Rest Pract*. 2005 Nov; 9(11):30-33.
- Clark DJ, Kim J. Optimizing gingival esthetics: A microscopic perspective. *Oral Health J*. 2005 Apr; 95:116-126.
- Francetti L, Del Fabbro M, Calace S, Testori T, Weinstein RL. Microsurgical treatment of gingival recession: a controlled clinical study. *Int J Periodontics Restorative Dent*. 2005 Apr; 25(2):181-188.
- Nase JB. Clinical operating microscopes: they're not just for endodontists anymore. *Pa Dent J (Harrisb)*. 2005 Sep-Oct; 72(5):30-33.
- Shanelec DA. Anterior esthetic implants: microsurgical placement in extraction sockets with immediate provisionals. *J Calif Dent Assoc*. 2005 Mar; 33(4):233-240.
- Taschieri S, Del Fabbro M, Testori T, Sozzi M, Weinstein RL. Microchirurgia endodontica. Evoluzione delle strategie operative. *Ital Oral Surg*. 2005; 1:1-8.
- Zesis A, Lin S, Fuss Z. Endodontic surgery (apicoectomy) – success rate of more than 90% using dental operating microscope and ultrasonic tips. *Refuat Hapeh Vehashinayim*. 2005 Jan; 22(1):33-41, 86.
- Charles A, Freed H. The surgical microscope in the periodontal practice. *Pract Proced Aesthet Dent*. 2004 Apr; 16(3):suppl 8-9.
- Clark DJ. Microscope enhanced esthetic dentistry. *Dent Today*. 2004 Nov; 23(11):96-101.
- Clark DJ. The operating microscope and ultrasonics; a perfect marriage. *Dent Today*. 2004 Jun; 23(6):74-76, 78-81.
- Friedman MJ. Magnification in a restorative dental practice: from loupes to microscopes. *Compend Contin Educ Dent*. 2004 Jan; 25(1):48,50,53-55.
- Gester V. The microscopy in dental medicine: gadget or necessity? *Rev Belge Med Dent*. 2004; 59(1):62-76.
- Jones LA. Microscope-enhanced dentistry: the quality beyond the commodity of esthetic dentistry. *Compend Contin Educ Dent*. 2004 Oct; 25(10):797-798.
- Kim S, Baek S. The microscope and endodontics. *Dent Clin North Am*. 2004 Jan; 48(1):11-18.
- Kim S. Modern endodontic practice: instruments and techniques. *Dent Clin North Am*. 2004 Jan; 48(1):1-9.
- Kotlow LA. Using a dental operating microscope in a pediatric dental practice. *Compend Contin Educ Dent*. 2004 Jun; 25(6):482, 484, 486-8.
- Schneider BT. Die Wurzelspitzenresektion im Seitenzahngelände unter Einsatz des Operationsmikroskops. Erfolgsraten einer 3-Jahres-Studie. *Quintessenz*. 2004; 55:837-842.
- Sheets CG. Applications of the surgical microscope in restorative dentistry. *Pract Proced Aesthet Dent*. 2004 Apr; 16(3):suppl1-2.
- Velvart P. Use of the operating microscope in endodontics. *Alpha Omegan*. 2004 Dec; 97(4):43-50.
- Zaugg B, Stassinaskis A, Hotz P. Einfluss von Vergrößerungshilfen auf die Erkennung nachgestellter Präparations- und Füllungsfehler. *Schweiz Monatsschr Zahnmed*. 2004; 114(9):890-896.
- Baumann MA, Clauder T, Diemer J, Richter W. Stellenwert des Operationsmikroskops für die Endodontie. *ZWR*. 2003; 112:560-566.
- Carr GB. Microscopic photography for the restorative dentist. *J Esthet Restor Dent*. 2003; 15(7):417-425.
- Clark DJ, Sheets CG, Parquette JM. Definitive diagnosis of early enamel and dentin cracks based on microscopic evaluation. *J Esthet Restor Dent*. 2003; 15(7):391-401.
- Shanelec DA. Periodontal microsurgery. *J Esthet Restor Dent*. 2003; 15(7):402-407.
- Yasuda SH, Vedovato E, Fagá Júnior A, Shimizu CK. Importância da microscopia operatória em prótese fixa. *Rev Assoc Paul Cir Dent*. 2003 May-Jun; 57(3):179-183.
- Baldassari-Cruz LA, Lilly JP, Rivera EM. The influence of dental operating microscope in locating the mesiolingual canal orifice. *J Endod*. 2002 Feb; 93(2):190-194.
- Buhrey LJ, Barrows MJ, BeGole EA, Wenckus CS. Effect of magnification on locating the MB2 canal in maxillary molars. *J Endod*. 2002 Apr; 28(4):324-327.
- Malfaz-Vazquez JM. Aplicaciones del microscopio en la Endodoncia actual. *RCOE*. 2002; 7:301-310.
- Rubinstein RA, Kim S. Long-term follow-up of cases considered healed one year after apical microsurgery. *J Endod*. 2002 May; 28(5):378-383.
- Schwarze T, Baethge C, Stecher T, Geurtsen W. Identification of second canals in the mesiobuccal root of maxillary first and second molars using magnifying loupes or an operating microscope. *Aust Endod J*. 2002 Aug; 28(2):57-60.
- Wille-Kollmar W. Einzug von Lupenbrille und Operationsmikroskop im Bereich Parodontologie und Implantologie. *Dent Implantol*. 2002; 6:28.
- Daoudi MF. Microscopic management of endodontic procedural errors: Perforation repair. *Dent Update*. 2001 May; 28(4):176-180.
- Görduysus MÖ, Görduysus M, Friedman S. Operating microscope improves negotiation of second mesiobuccal canals in maxillary molars. *J Endod*. 2001 Nov; 27(11):683-686.
- Sheets CG, Paquette JM, Hatate K. The clinical microscope in an aesthetic restorative practice. *J Esthet Restor Dent*. 2001; 13(3):187-200.
- Burkhardt R, Hürzeler MB. Utilization of the surgical microscope for advanced plastic periodontal surgery. *Pract Periodont Aesthet Dent*. 2000; 12(2):171-180.