

## CONSORT Randomized Clinical Trial

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[Comparative Analysis of 2 Calcium Silicate–based Cements \(Biodentine and Mineral Trioxide Aggregate\) as Direct Pulp-capping Agent in Young Permanent Molars: A Split Mouth Study](#)

Farhin A. Katge, Devendra P. Patil

## Review Article

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[Association between Systemic Diseases and Endodontic Outcome: A Systematic Review](#)

Anita Aminoshariae, James C. Kulild, Andre Mickel, Ashraf F. Fouad

[Assessment of Root Canal Filling Removal Effectiveness Using Micro–computed Tomography: A Systematic Review](#)

Giampiero Rossi-Fedele, Hany Mohamed Aly Ahmed

[Are Premixed Calcium Silicate–based Endodontic Sealers Comparable to Conventional Materials? A Systematic Review of \*In Vitro\* Studies](#)

Luiza Helena Silva Almeida, Rafael Ratto Moraes, Renata Dornelles Morgental, Fernanda Geraldo Pappen

[An Approach for a Mathematical Description of Human Root Canals by Means of Elementary Parameters](#)

Martin Dannemann, Michael Kucher, Jasmin Kirsch, Alexander Binkowski, Niels Modler, Christian Hannig, Marie-Theres Weber

## Clinical Research

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[Detection of Fractured Endodontic Instruments in Root Canals: Comparison between Different Digital Radiography Systems and Cone-beam Computed Tomography](#)

Ana Caroline Ramos Brito, Francielle Silvestre Verner, Rafael Binato Junqueira, Mayra Cristina Yamasaki, Polyane Mazucato Queiroz, Deborah Queiroz Freitas, Christiano Oliveira-Santos

[Clinical Outcomes after Intentional Replantation of Periodontally Involved Teeth](#)

Sin-Yeon Cho, Seung-Jong Lee, Euseong Kim

[Long-term Clinical Outcome of Teeth Obturated with Resilon](#)

Benjamin J. Barborika, Karl F. Woodmansey, Gerald N. Glickman, Emet Schneiderman, Jianing He

## Regenerative Endodontics

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[Survival of the Apical Papilla and Its Resident Stem Cells in a Case of Advanced Pulpal Necrosis and Apical Periodontitis](#)

Vanessa Chrepa, Brandon Pitcher, Michael A. Henry, Anibal Diogenes

[Dental Pulp Tissue Regeneration Using Dental Pulp Stem Cells Isolated and Expanded in Human Serum](#)

Evandro Piva, Susan A. Tarlé, Jacques E. Nör, Duohong Zou, Elizabeth Hatfield, Tyler Guinn, Emily J. Eubanks, Darnell Kaigler

[Antibacterial Effects of Antimicrobials Used in Regenerative Endodontics against Biofilm Bacteria Obtained from Mature and Immature Teeth with Necrotic Pulps](#)

Jordon C. Jacobs, Alex Troxel, Ygal Ehrlich, Kenneth Spolnik, Josef S. Bringas, Richard L. Gregory, Ghaeth H. Yassen

[Rac1 Regulates the Proliferation, Adhesion, Migration, and Differentiation of MDPC-23 Cells](#)

Jing Ren, Guobin Liang, Li Gong, Bing Guo, Hongwei Jiang

[Human and Swine Dental Pulp Stem Cells Form a Vascularlike Network after Angiogenic Differentiation in Comparison with Endothelial Cells: A Quantitative Analysis](#)

Hacer Aksel, George T.-J. Huang

## Basic Research

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## Biology

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[The Effects of M1 and M2 Macrophages on Odontogenic Differentiation of Human Dental Pulp Cells](#)

Hee Chul Park, Hongxuan Quan, Tingting Zhu, Yongjoon Kim, Bongju Kim, Hyeong-Cheol Yang

[Increased Expression of Glutaminase in Osteoblasts Promotes Macrophage Recruitment in Periapical Lesions](#)  
Kuo-Liang Hou, Sze-Kwan Lin, Sang-Heng Kok, Han-Wei Wang, Eddie Hsiang-Hua Lai, Chi-Yuan Hong, Hsiang Yang, Juo-Song Wang, Li-Deh Lin, Jenny Zwei-Chiang Chang

## Technology

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[Glide Path Enlargement of Mandibular Molar Canals by Using K-files, the ProGlider File, and G-Files: A Comparative Study of the Preparation Times](#)

Farzana Paleker, Peet J. van der Vyver

[Influence of Cyclic Flexural Deformation on the Torsional Resistance of Controlled Memory and Conventional Nickel-titanium Instruments](#)

Eufemia Carolina Peláez Acosta, Pedro Damas Resende, Isabella Faria da Cunha Peixoto, Érika Sales Joviano Pereira, Vicente Tadeu Lopes Buono, Maria Guiomar de Azevedo Bahia

[Micro-computed Tomography Assessment of Dentinal Micro-cracks after Root Canal Preparation with TRUShape and Self-adjusting File Systems](#)

Mario Luis Zuolo, Gustavo De-Deus, Felipe Gonçalves Belladonna, Emmanuel João Nogueira Leal da Silva, Ricardo Tadeu Lopes, Erick Miranda Souza, Marco Aurélio Versiani, Alexandre Augusto Zaia

[Comparison of Cyclic Fatigue Resistance of WaveOne and WaveOne Gold Small, Primary, and Large Instruments](#)

Mehmet Adıgüzel, Ismail Davut Capar

[A Micro-computed Tomography Evaluation of the Shaping Ability of Two Nickel-titanium Instruments, HyFlex EDM and ProTaper Next](#)

Pier Matteo Venino, Claudio Luigi Citterio, Alberto Pellegatta, Marta Ciccarelli, Marcello Maddalone

[Dentinal Tubule Penetration of a Calcium Silicate-based Root Canal Sealer with Different Obturation Methods](#)

Ji Wook Jeong, Anna DeGraft-Johnson, Samuel O. Dorn, Peter M. Di Fiore

[Presence of Voids after Continuous Wave of Condensation and Single-cone Obturation in Mandibular Molars: A Micro-computed Tomography Analysis](#)

Elaine Faga Iglecias, Laila Gonzales Freire, George Tácio de Miranda Candeiro, Marcelo dos Santos, João Humberto Antoniazzi, Giulio Gavini

[Antibacterial Efficacy of Octenisept, Alexidine, Chlorhexidine, and Sodium Hypochlorite against \*Enterococcus faecalis\* Biofilms](#)

Sundus Bukhary, Hanan Balto

[Apically Extruded Debris after Retreatment Procedure with Reciproc, ProTaper Next, and Twisted File Adaptive Instruments](#)

Koray Yılmaz, Taha Özyürek

[Effect of Different Irrigation Systems on Sealer Penetration into Dentinal Tubules](#)

Luigi Generali, Francesco Cavani, Valentina Serena, Corinne Pettenati, Elena Righi, Carlo Bertoldi

[Interactions between the Tetrasodium Salts of EDTA and 1-Hydroxyethane 1,1-Diphosphonic Acid with Sodium Hypochlorite Irrigants](#)

Philippe Biel, Dirk Mohn, Thomas Attin, Matthias Zehnder