

## Clinical Research

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[Reversal of Pulpal and Soft Tissue Anesthesia by Using Phentolamine: A Prospective Randomized, Single-blind Study](#)

Spencer Elmore, John Nusstein, Melissa Drum, Al Reader, Mike Beck, Sara Fowler

[A Cone-beam Computed Tomography Study of the Root Canal Morphology of Mandibular First Premolars and the Location of Root Canal Orifices and Apical Foramina in a Chinese Subpopulation](#)

Haibing Yang, Cheng Tian, Guoju Li, Lin Yang, Xuan Han, Yan Wang

[Is Mandibular Molar Buccal Infiltration a Mental and Incisive Nerve Block? A Randomized Controlled Trial](#)

Charlotte C. Currie, John G. Meechan, John M. Whitworth, Ian P. Corbett

[Expression Levels of Matrix Metalloproteinase-9 and Gram-negative Bacteria in Symptomatic and Asymptomatic Periapical Lesions](#)

Geraldine M. Ahmed, Alaa A. El-Baz, Ahmed Abdel Rahman Hashem, Abeer K. Shalaan

[Different Treatment Protocols for Different Pulpal and Periapical Diagnoses of 72 Cracked Teeth](#)

Sin-Young Kim, Su-Hyun Kim, Soo-Bin Cho, Gyung-Ok Lee, Sung-Eun Yang

[Th1 and Th2-like Protein Balance in Human Inflammatory Radicular Cysts and Periapical Granulomas](#)

Carlos Alberto de Carvalho Fraga, Lucas Rodrigues Alves, Adriana Alkmim de Sousa, Sabrina Ferreira de Jesus, Daniel Nogueira Vilela, Camila Santos Pereira, Patrícia Luciana Batista Domingos, Agostinho Gonçalves Viana, Bruno Correia Jham, Alfredo Maurício Batista de Paula, André Luiz Sena Guimarães

[Elevated Tumor Necrosis Factor-alpha Expression in Periapical Lesions Infected by Epstein-Barr Virus](#)

Katinka Hernádi, Eszter Gyöngyösi, Beáta Mészáros, Levente Szakács, Anita Szalmás, Eszter Csoma, Richárd Mogyorósi, Levente Czompa, György Veress, István Varga, Ildikó Judit Márton, József Kónya

## Basic Research Biology

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[The Antioxidant Property of Pachymic Acid Improves Bone Disturbance against AH Plus–induced Inflammation in MC-3T3 E1 Cells](#)

Tae-Gun Kim, Young-Hee Lee, Nan-Hee Lee, Govinda Bhattarai, In-Kyoung Lee, Bong-Sik Yun, Ho-Keun Yi

[Biological Effects and Washout Resistance of a Newly Developed Fast-setting Pozzolan Cement](#)

Yoorina Choi, Su-Jung Park, Seoung-Hoon Lee, Yun-Chan Hwang, Mi-Kyung Yu, Kyung-San Min

[Effect of the Source of Biofilm Bacteria, Level of Biofilm Maturation, and Type of Disinfecting Agent on the Susceptibility of Biofilm Bacteria to Antibacterial Agents](#)

Sonja Stojicic, Ya Shen, Markus Haapasalo

[In Vitro Cytotoxicity Evaluation of a Novel Root Repair Material](#)

Hui-min Zhou, Ya Shen, Zhe-jun Wang, Li Li, Yu-feng Zheng, Lari Häkkinen, Markus Haapasalo

[Coronal Tooth Discoloration and White Mineral Trioxide Aggregate](#)

Daniel Felman, Peter Parashos

[Up-regulation of p38 Mitogen-activated Protein Kinase during Pulp Injury–induced Glial Cell/Neuronal Interaction in the Rat Thalamus](#)

Tomoatsu Kaneko, Uraiwan Chokechanachaisakul, Jun Kawamura, Yusuke Yamanaka, Takafumi Ito, Mitsuhiro Sunakawa, Hideaki Suda, Takashi Okiji

[Methylation Pattern of \*IFNG\* in Periapical Granulomas and Radicular Cysts](#)

Kelma Campos, Carolina Cavaliéri Gomes, Jeane de Fátima Correia-Silva, Lucyana Conceição Farias, Thiago Fonseca-Silva, Vanessa Fátima Bernardes, Cláudia Maria Pereira, Ricardo Santiago Gomez

## Technology

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[Biocompatibility of Mineral Trioxide Aggregate Mixed with Hydration Accelerators](#)

Ji-Youn Kang, Bin-Na Lee, Hye-Ju Son, Jeong-Tae Koh, Seong-Soo Kang, Ho-Hyun Son, Hoon-Sang Chang, In-Nam Hwang, Yun-Chan Hwang, Won-Mann Oh

[Incidence of Dentinal Defects after Root Canal Preparation: Reciprocating versus Rotary Instrumentation](#)  
Sebastian Bürklein, Polymnia Tsotsis, Edgar Schäfer

[Interactions between Irrigants Commonly Used in Endodontic Practice: A Chemical Analysis](#)  
Maíra Prado, Helvécio M. Santos Júnior, Claudia M. Rezende, Angelo C. Pinto, Roberto B. Faria, Renata A. Simão, Brenda P.F.A. Gomes

[Apical Pressure and Extent of Irrigant Flow beyond the Needle Tip during Positive-pressure Irrigation in an \*In Vitro\* Root Canal Model](#)  
Ellen Park, Ya Shen, Mehrzad Khakpour, Markus Haapasalo

[Comparison of the Mechanical Properties of Rotary Instruments Made of Conventional Nickel-Titanium Wire, M-Wire, or Nickel-Titanium Alloy in R-Phase](#)  
Hélio P. Lopes, Thaianie Gambarra-Soares, Carlos N. Elias, José F. Siqueira, Inês F.J. Inojosa, Weber S.P. Lopes, Victor T.L. Vieira

[Effect of Needle Insertion Depth and Root Canal Curvature on Irrigant Extrusion \*Ex Vivo\*](#)  
Zoi Psimma, Christos Boutsoukias, Eleftherios Kastrinakis, Leonidas Vasiliadis

[Influence of Light and Oxygen on the Color Stability of Five Calcium Silicate–based Materials](#)  
Marta Vallés, Montse Mercadé, Fernando Duran-Sindreu, Jose L. Bourdelande, Miguel Roig

[Periapical Pressures Developed by Nonbinding Irrigation Needles at Various Irrigation Delivery Rates](#)  
Sara Khan, Li-na Niu, Ashraf A. Eid, Stephen W. Looney, Anthony Didato, Steven Roberts, David H. Pashley, Franklin R. Tay

[Glide Path Preparation in S-shaped Canals with Rotary Pathfinding Nickel-Titanium Instruments](#)  
Natasha C.C. Ajuz, Luciana Armada, Lucio S. Gonçalves, Gilberto Debelian, José F. Siqueira

[Intramanufacturer Diameter and Taper Variability of Rotary Instruments and Their Corresponding Gutta-percha Cones](#)  
Matthew B. Chesler, Patricia A. Tordik, Glen M. Imamura, Gary G. Goodell

[Characterization of Dentin Matrix Biomodified by \*Galla Chinensis\* Extract](#)  
Meng Deng, Xiaoli Dong, Xuedong Zhou, Lufei Wang, Hong Li, Xin Xu

## Case Report/Clinical Techniques

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[Intraoperative Endodontic Applications of Cone-Beam Computed Tomography](#)  
Randy L. Ball, Joao V. Barbizam, Nestor Cohenca

## Society News

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[AAE Position Statement: Scope of Endodontics: Extraction of Teeth](#)

[AAE Position Statement: Scope of Endodontics: Dental Implants](#)

[AAE Position Statement: Scope of Endodontics: Regenerative Endodontics](#)