

# INTERNATIONAL ENDODONTIC JOURNAL

The official journal of the British Endodontic Society and the European Society of Endodontology

INTERNATIONAL  
ENDODONTIC JOURNAL



**International Endodontic Journal**

Volume 54, Issue 5

Pages: 641-813

May 2021

---

## Issue Information

 [Free Access](#)

### Issue Information

Pages: 641 | First Published: 19 April 2021

## Editorial

 [Free Access](#)

### **The development of European Society of Endodontology S3-level guidelines for the treatment of pulpal and apical disease**

H. F. Duncan, B. S. Chong, M. Del Fabbro, I. El-Karim, K. Galler, L.-L. Kirkevang, G. Krastl, O. A. Peters, J. J. Segura Egea, M. Kepschull

Pages: 643-645 | First Published: 19 April 2021

## Special Paper

### **Outcome measures to assess the effectiveness of endodontic treatment for pulpitis and apical periodontitis for use in the development of European Society of Endodontology (ESE) S3 level clinical practice guidelines: a protocol**

H. F. Duncan, V. Nagendrababu, I. A. El-Karim, P. M. H. Dummer

Pages: 646-654 | First Published: 25 February 2021

## Position Statement

 [Free Access](#)

### **European Society of Endodontology position statement: Surgical extrusion, intentional replantation and tooth autotransplantation: European Society of Endodontology developed by:**

G. Plotino, F. Abella Sans, M. S. Duggal, N. M. Grande, G. Krastl, V. Nagendrababu, G. Gambarini

Pages: 655-659 | First Published: 26 January 2021

## Clinical Research

## **Bacteria and virulence factors in periapical lesions associated with teeth following primary and secondary root canal treatment**

J. D. Bronzato, M. E. S. Davidian, M. de Castro, A. de-Jesus-Soares, C. C. R. Ferraz, J. F. A. Almeida, M. A. Marciano, B. P. F. A. Gomes

Pages: 660-671 | First Published: 03 December 2020

## **Association between dental factors and mortality**

J. M. Liljestrand, A. Salminen, L. Lahdentausta, S. Paju, P. Mäntylä, K. Buhlin, L. Tjäderhane, J. Sinisalo, P. J. Pussinen

Pages: 672-681 | First Published: 04 December 2020

## **IgG4-positive plasma cells are more often detected in chronic periapical lesions arising from permanent rather than primary teeth**

X. B. J. Polanco, A. S. Bertasso, H. A. Silveira, L. Yamamoto de Almeida, L. K. Y. Almeida, R. A. B. da Silva, L. A. B. da Silva, A. de Rossi, P. Nelson-Filho, J. E. León

Pages: 682-692 | First Published: 09 December 2020

Review Articles

 [Free Access](#)

## **Ultrasound imaging for the differential diagnosis of periapical lesions of endodontic origin in comparison with histopathology – a systematic review and meta-analysis**

V. Natanasabapathy, B. Arul, A. Mishra, A. Varghese, S. Padmanaban, S. Elango, S. Arockiam

Pages: 693-711 | First Published: 25 December 2020

 [Free Access](#)

## **The global prevalence of apical periodontitis: a systematic review and meta-analysis**

C. S. Tibúrcio-Machado, C. Michelon, F. B. Zanatta, M. S. Gomes, J. A. Marin, C. A. Bier

Pages: 712-735 | First Published: 30 December 2020

Basic Research – Biological

## **Histomorphometric and immunohistochemical study shows that tricalcium silicate cement associated with zirconium oxide or niobium oxide is a promising material in the periodontal tissue repair of rat molars with perforated pulp chamber floors**

D. D. Barbosa, M. M. Delfino, J. M. Guerreiro-Tanomaru, M. Tanomaru-Filho, E. Sasso-Cerri, G. F. Silva, P. S. Cerri

Pages: 736-752 | First Published: 04 December 2020

## **Mineral trioxide aggregate-induced AMPK activation stimulates odontoblastic differentiation of human dental pulp cells**

Yoon-Jung Kim, Won-Jae Kim, Sun-Woong Bae, Sun-Mi Yang, Sam-Young Park, Seon-Mi Kim, Ji-Yeon Jung

Pages: 753-767 | First Published: 04 December 2020

## **Wnt antagonist secreted frizzled-related protein 1 (sFRP1) may be involved in the osteogenic differentiation of periodontal ligament cells in chronic apical periodontitis**

F. Yang, D. Huang, L. Xu, W. Xu, X. Yi, X. Zhou, L. Ye, L. Zhang  
Pages: 768-779 | First Published: 08 December 2020

Basic Research – Technical

### **Comparison of design, metallurgy, mechanical performance and shaping ability of replica-like and counterfeit instruments of the ProTaper Next system**

J. N. R. Martins, E. J. N. L. Silva, D. Marques, F. Belladonna, M. Simões-Carvalho, E. Camacho, F. M. Braz Fernandes, M. A. Versiani  
Pages: 780-792 | First Published: 09 December 2020

### **Accuracy and efficiency of guided root-end resection using a dynamic navigation system: a human cadaver study**

O. Dianat, A. Nosrat, B. Mostoufi, J.B. Price, S. Gupta, F. C. Martinho  
Pages: 793-801 | First Published: 25 December 2020

Education

### **An investigation into security, self-confidence and gender differences related to undergraduate education in Endodontics**

S. R. Haug, B. R. Linde, H. Q. Christensen, V. H. Vilhjalmsen, A. Bårdsen  
Pages: 802-811 | First Published: 30 November 2020

Letter to the Editor

### **Letter to the Editor**

S Kaluva Kolanu  
Pages: 812 | First Published: 19 April 2021

### **Reply**

S. Patel, F. Foschi, F. Mannocci, K. Patel  
Pages: 813 | First Published: 19 April 2021