



**ENDODONTICS:  
AI & ROBOTICS**

<a href="#">Endodontic microsurgery of mandibular molars with an autonomous robotic system</a> [free to members on Science Direct. If you do not have a login email <a href="mailto:library@bda.org">library@bda.org</a> to request one]	J Endod 2025; 51(12): 1830-1836
<a href="#">Shaping the clinician II: artificial intelligence–taught endodontic skills</a> [free to members on Science Direct. If you do not have a login email <a href="mailto:library@bda.org">library@bda.org</a> to request one]	Dent Clin N Amer 2025; 69(4): 585-602
<a href="#">Artificial intelligence and ethics in endodontics</a> [free to members on Science Direct. If you do not have a login email <a href="mailto:library@bda.org">library@bda.org</a> to request one]	Dent Clin N Amer 2025; 69(4): 555-562
<a href="#">Artificial intelligence and prognosis of treatment in endodontics</a> [free to members on Science Direct. If you do not have a login email <a href="mailto:library@bda.org">library@bda.org</a> to request one]	Dent Clin N Amer 2025; 69(4): 527-540
<a href="#">Artificial intelligence in endodontics/robotics- microrobotics in endodontics: a revolutionary approach to root canal treatment and nanozymes</a> [free to members on Science Direct. If you do not have a login email <a href="mailto:library@bda.org">library@bda.org</a> to request one]	Dent Clin N Amer 2025; 69(4): 515-526
<a href="#">Artificial intelligence in endo, an overview</a> [free to members on Science Direct. If you do not have a login email <a href="mailto:library@bda.org">library@bda.org</a> to request one]	Dent Clin N Amer 2025; 69(4): 473-477
<a href="#">Evaluating large language models in addressing patient questions on endodontic pain: a comparative analysis of accessible chatbots</a> [free to members on Science Direct. If you do not have a login email <a href="mailto:library@bda.org">library@bda.org</a> to request one]	J Endod 2025; 51(11): 1617-1624
<a href="#">Performance of advanced artificial intelligence models in pulp therapy for immature permanent teeth: a comparison of ChatGPT-4 Omni, DeepSeek, and Gemini Advanced in accuracy, completeness, response time, and readability</a> [free to members on Science Direct. If you do not have a login email <a href="mailto:library@bda.org">library@bda.org</a> to request one]	J Endod 2025; 51(11): 1675-1684
<a href="#">Performance of 7 artificial intelligence chatbots on board-style endodontic questions</a>	J Endod 2025; 51(10): 1413-1419
<a href="#">Performance of 4 artificial intelligence chatbots in answering endodontic questions</a> [free to members on Science Direct. If you do not have a login email <a href="mailto:library@bda.org">library@bda.org</a> to request one]	J Endod 2025; 51(5): 602-608
<a href="#">A review of ChatGPT as a reliable source of scientific information regarding endodontic local anesthesia</a> [free to members on Science Direct. If you do not have a login email <a href="mailto:library@bda.org">library@bda.org</a> to request one]	J Endod 2025; 51(5): 571-576
<a href="#">A novel artificial intelligence-powered tool for automated root canal segmentation in single-rooted teeth on cone-beam computed tomography</a>	Int Endod J 2025; 58(4): 658-671
<a href="#">Unveiling the power of artificial intelligence for image-based diagnosis and treatment in endodontics: An ally or adversary?</a>	Int Endod J 2025; 58(2): 155-170



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<a href="#">AI-driven segmentation of the pulp cavity system in mandibular molars on CBCT images using convolutional neural networks</a>	Clin Oral Investig 2024; 28: 650
<a href="#">Artificial intelligence in endodontics: data preparation, clinical applications, ethical considerations, limitations, and future directions</a>	Int Endod J 2024; 57(11): 1566-95
<a href="#">Artificial intelligence in endodontics: fundamental principles, workflow, and tasks</a>	Int Endod J 2024; 57(11): 1546-65
<a href="#">Artificial intelligence for detecting periapical radiolucencies: A systematic review and meta-analysis</a>	J Dentistry 2024; 147: 105104
<a href="#">Microrobotics in endodontics: A perspective</a>	Int Endod J 2024; 57(7): 861-871
<a href="#">The use of artificial intelligence in endodontics</a>	J Dent Res 2024; 103 (9): 853-862
<a href="#">Progress of artificial intelligence-driven solutions for automated segmentation of dental pulp cavity on cone-beam computed tomography images. A systematic review</a>	J Endod 2024; online 29 May doi.org/10.1016/j.joen.2024.05.012
<a href="#">Artificial intelligence for detection of external cervical resorption using label-efficient self-supervised learning method</a> [free to members on Science Direct. If you do not have a login email <a href="mailto:library@bda.org">library@bda.org</a> to request one]	J Endod 2024; 50(2): 144-153
<a href="#">Unveiling the ChatGPT phenomenon: evaluating the consistency and accuracy of endodontic question answers</a>	Int Endod J 2024; 57(1): 108-113
Validity and reliability of artificial intelligence chatbots as public sources of information on endodontics [Accessible from the Wiley link <a href="#">on this page</a> ]	Int Endod J 2023; Dec 20 [Ahead of print]
Applying artificial intelligence to detect and analyse oral and maxillofacial bone loss—a scoping review	Aust Endod J 2023; 49(3): 720-734
Artificial intelligence: is it more accurate than endodontists in root canal therapy? [Log in to the <a href="#">BDA home page</a> and follow the link to the BDJ to access]	EBD 2023; 24(3): 106-107
<a href="#">Artificial intelligence and its application in endodontics: A review</a>	J Contemporary Dent Pract 2023; 24(11): 912-917
<a href="#">Predicting case difficulty in endodontic microsurgery using machine learning algorithms</a>	J Dent 2023; 133: 104522
<a href="#">Prediction of pulp exposure before caries excavation using artificial intelligence: Deep learning-based image data versus standard dental radiographs</a>	J Dent 2023; 138: 104732
ChatGPT, consistency and accuracy of endodontic question [Accessible from the Wiley link <a href="#">on this page</a> ]	Int Endod J 2023; Nov 07 [Ahead of print]
<a href="#">Evaluating the performance of generative adversarial network-synthesized periapical images in classifying C-shaped root canals</a>	Sci Rep 2023; 13(1): 18038



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<a href="#">Artificial intelligence in endodontics</a>	J Calif Dent Assoc 2023; 51(1): 2199933
Contemporary role and applications of artificial intelligence in dentistry [Accessible from the Wiley link <a href="#">on this page</a> ]	F1000Research 2023; 12: 1179
<a href="#">The efficiency of artificial intelligence methods for finding radiographic features in different endodontic treatments - a systematic review</a>	Acta Odontol Scand 2023; 81(6): 422-435
<a href="#">An endodontic forecasting model based on the analysis of preoperative dental radiographs: A pilot study on an endodontic predictive deep neural network</a> [free to members on Science Direct. If you do not have a login email <a href="mailto:library@bda.org">library@bda.org</a> to request one]	J Endod 2023; 49(6): 710-719
<a href="#">Experimental validation of computer-vision methods for the successful detection of endodontic treatment obturation and progression from noisy radiographs</a>	Oral Radiol 2023; 39(4): 683-698
<a href="#">Preoperative risk assessment does not allow to predict root filling length using machine learning: A longitudinal study</a> [free to members on Science Direct. If you do not have a login email <a href="mailto:library@bda.org">library@bda.org</a> to request one]	J Dent 2023; 128: 104378
<a href="#">Can ChatGPT pass the "Iranian Endodontics Specialist Board" exam?</a>	Iran Endod J 2023; 18(3): 192
<a href="#">Detection of the separated root canal instrument on panoramic radiograph: a comparison of LSTM and CNN deep learning methods</a>	Dento-Maxillofac-Radiol 2023; 52(3): 20220209
<a href="#">Second opinion for non-surgical root canal treatment prognosis using machine learning models</a>	Diagnostics (Basel) 2023; 13(17): 2742
<a href="#">Developments and performance of artificial intelligence models designed for application in endodontics: A systematic review</a>	Diagnostics (Basel) 2023; 13(3): 414
<a href="#">The role of neural artificial intelligence for diagnosis and treatment planning in endodontics: A qualitative review</a>	Saudi Dent J 2022; 34(4): 270-281
<a href="#">A lightweight convolutional neural network model with receptive field block for C-shaped root canal detection in mandibular second molars</a>	Sci Rep 2022; 12(1): 17373
<a href="#">Machine learning models for prognosis prediction in endodontic microsurgery</a>	J Dent 2022; 118: 103947
<a href="#">Association between patient-, tooth- and treatment-level factors and root canal treatment failure: A retrospective longitudinal and machine learning study</a>	J Dent 2022; 117: 103937
Critical analysis of artificial intelligence in endodontics: a scoping review [free to members on Science Direct. If you do not have a login email <a href="mailto:library@bda.org">library@bda.org</a> to request one]	J Endod 2022; 48(2): 152-160
Deep learning for categorization of endodontic lesion based on radiographic periapical index scoring system [can be accessed on DOSS free by logging in <a href="#">on this page</a> ]	Clin Oral Investig 2022; 26(1): 651-658



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<a href="#">Predicting postoperative pain following root canal treatment by using artificial neural network evaluation</a>	Sci Rep 2021; 11(1): 17243
<a href="#">Artificial intelligence in endodontics: Current applications and future directions</a> [free to members on Science Direct. If you do not have a login email <a href="mailto:library@bda.org">library@bda.org</a> to request one]	J Endod 2021; 47(9): 1352-1357
<a href="#">Effectiveness of artificial intelligence applications designed for endodontic diagnosis, decision-making, and prediction of prognosis: A systematic review</a>	J Contemporary Dent Pract 2020; 21(8): 926-934