



**PERIODONTOLOGY:
ARTIFICIAL INTELLIGENCE & ROBOTICS**

Artificial intelligence in periodontology: a systematic review	J Periodont Res 2026; online 30 Mar doi.org/10.1111/jre.70107
Artificial intelligence applications in periodontology: enhancing diagnosis, monitoring, and treatment in clinical practice [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	Dent Clin N Amer 2026; 70(2): 445-469
The impact of artificial intelligence on periodontal disease detection and treatment	Front Dent Med 2026; online February 6
Deep-learning-based detection of periodontal infrabony and furcation defects on periapical radiographs: A feasibility study	Int Dent J 2026; 76(2): 109380
Machine learning-based transcriptomic diagnosis of periodontitis	Int Dent J 2026; 76(1): 104028
Graph-contrastive convolutional neural network for extracting and classifying peptide-based periodontal immunomodulatory and anti-inflammatory signatures	Int Dent J 2026; 76(1): 103986
Single-cell and machine learning analysis reveal novel inflammatory macrophage subtypes and biomarkers in periodontitis	Int Dent J 2026; 76(1): 103983
Deep learning photo processing for periodontitis screening [can be accessed on DOSS free by logging in on this page]	J Dent Res 2026; 105(2): 226-235
Synthetic data as a tool for prototyping early-stage periodontitis detection models	Periodont Implant Res 2025; 9: article 21
Evaluation of artificial intelligence-based clinical decision support systems for caries and periodontal bone loss: An external validation study [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Am Dent Assoc 2025; Dec 24
Deep learning-based identification of periodontal infrabony defects with regenerative potential: A multicenter retrospective study [Accessible from the Wiley link on this page]	J Perio 2025; Dec 10
Large language models in periodontology: Assessing their performance in clinically relevant questions [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Prosthet Dent 2025; 134 (6): 2328-2336
Deep learning for detecting dental plaque and gingivitis from oral photographs: A systematic review	Comm Dent Oral Epidemiol 2025; 53(6): 617-632
Machine learning-assisted prediction of clinical responses to periodontal treatment	J Perio 2025; 96(11): 1199-1212
Artificial intelligence in detecting periodontal disease from intraoral photographs: A systematic review	Int Dent J 2025; 75(5): 100883
Developing predictive models for periodontitis progression using artificial intelligence: A longitudinal cohort study	J Clin Periodontol 2025; 52(10): 1478-1490



**PERIODONTOLOGY:
ARTIFICIAL INTELLIGENCE & ROBOTICS**

Applications of artificial intelligence (AI) for diagnosis of periodontal/peri-implant diseases: A narrative review	J Oral Rehabil 2025; 52(8): 1193-1219
Artificial intelligence with counselling on the treatment outcomes and quality of life in periodontitis patients [Accessible from the Wiley link on this page]	J Periodontol 2025; 96(7): 781-793
Machine learning for automated identification of anatomical landmarks in ultrasound periodontal imaging	DMFR 2025; 54(3): 210-221
Advancing periodontal diagnosis: harnessing advanced artificial intelligence for patterns of periodontal bone loss in cone-beam computed tomography	DMFR 2025; 54(4): 268-278
Artificial intelligence models for periodontitis classification: a systematic review	J Dent 2025; 156: 105690
Emerging applications of digital technologies for periodontal screening, diagnosis and prognosis in dental setting [Review] [Accessible from the Wiley link on this page]	J Clin Periodontol 2025; 52 (Suppl 29): 211-245
Automatic deep learning segmentation of mandibular periodontal bone topography on cone-beam computed tomography images	J Dent 2025; 159: 105813
Development of an artificial intelligence model for assisting periodontal therapy decision-making: A retrospective longitudinal cohort study [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Dent 2025; 159: 105780
Identification of gingival inflammation surface image features using intraoral scanning and deep learning	Int Dent J 2025; 75(3): 2104-2114
External validation of an AI mHealth tool for gingivitis detection among older adults at daycare centers: A pilot study	Int Dent J 2025; 75(3): 1970-1978
A personalized periodontitis risk based on nonimage electronic dental records by machine learning	J Dent 2025; 153: 105469
Performance of ChatGTP and dental students on concepts of periodontal surgery [Accessible from the Wiley link on this page]	Eur J Dent Educ 2025; 29(1): 36-43
Development and comparative evaluation of a restructured GPT-40 model specialized in periodontology	J Clin Periodontol 2025; 52(5): 707-716
Explainable deep learning approaches for risk screening of periodontitis	J Dent Res 2025; 104(1): 45-53
Artificial intelligence in detecting periodontal disease from intraoral photographs: a systematic review	Int Dent J 2025; 75 (5): 100883
A personalized periodontitis risk based on nonimage electronic dental records by machine learning	J Dent 2024; Nov 19. 105469



**PERIODONTOLOGY:
ARTIFICIAL INTELLIGENCE & ROBOTICS**

Deep learning method to automatically diagnose periodontal bone loss and periodontitis stage in dental panoramic radiographs [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Dent 2024; 150: 105373
Large language models in periodontology: Assessing their performance in clinically relevant questions [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Prosthet Dent 2024; Nov 18
Artificial intelligence with counseling on the treatment outcomes and quality of life in periodontitis patients [Accessible from the Wiley link on this page]	J Periodont 2024; Nov 16
Performance of ChatGPT and dental students on concepts of periodontal surgery [Accessible from the Wiley link on this page]	Eur J Dent Educ 2024; Oct 24
Accuracy of artificial intelligence models in the prediction of periodontitis: A systematic review (request using https://www.smartsurvey.co.uk/s/PJHMV/)	JDR Clin Translational Res 2024; 9(4): 312-324
Exploring the accuracy of tooth loss prediction between a clinical periodontal prognostic system and a machine learning prognostic model	J Clin Periodontol 2024; 51(10): 1333-1341
Enhanced control of periodontitis by an artificial intelligence-enabled multimodal-sensing toothbrush and targeted mHealth micromessages: A randomized trial	J Clin Periodont 2024; Apr 17
Identifying predictors of the tooth loss phenotype in a large periodontitis patient cohort using a machine learning approach [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Dentistry 2024; 144: 104921
Comparison of deep learning methods for the radiographic detection of patients with different periodontitis stages	Dento-Maxillo-Fac Radiol 2024; 53(1): 32-42
Artificial intelligence in dental education: ChatGPT's performance on the periodontic in-service examination [Accessible from the Wiley link on this page]	J Periodontol 2024; Jan10 [Early view]
Artificial intelligence models for diagnosing gingivitis and periodontal disease: A systematic review [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Prosthet Dent 2023; 130(6): 816-824
Fairness of machine learning algorithms for predicting foregone preventive dental care for adults	JAMA Netw Open 2023; 6 (11): e2341625
Identifying predictors of tooth loss using a rule-based machine learning approach: A retrospective study at university-setting clinics	J Periodontol 2023; 94(10): 1231-1242



**PERIODONTOLOGY:
ARTIFICIAL INTELLIGENCE & ROBOTICS**

Efficacy of artificial intelligence in the detection of periodontal bone loss and classification of periodontal diseases: A systematic review [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Am Dent Assoc 2023; 154 (9): 795-804
Development of a machine learning multiclass screening tool for periodontal health status based on non-clinical parameters and salivary biomarkers	J Clin Periodontol 2023; Sep 11 [Early view]
Suitability of machine learning models for prediction of clinically defined Stage III/IV periodontitis from questionnaires and demographic data in Danish cohorts	J Clin Periodontol 2023; Sep 10 [Early view]
Efficiency and accuracy of artificial intelligence in the radiographic detection of periodontal bone loss: A systematic review	Imaging Sci Dent 2023; 53(3): 193-198
Detection of tooth numbering, frenulum attachment, gingival overgrowth, and gingival inflammation signs on dental photographs using convolutional neural network algorithms: a retrospective study [can be accessed on DOSS free by logging in on this page]	Quintessence Int 2023; 54(8): 680-693
Evaluation of an artificial intelligence system for the diagnosis of apical periodontitis on digital panoramic images	Nigerian J Clin Pract 2023; 26(8): 1085-1090
Improving periodontal disease management with artificial intelligence [can be accessed on DOSS free by logging in on this page]	Compendium Contin Educ Dent 2023; 44(6): e1-e4
Development and international validation of logistic regression and machine-learning models for the prediction of 10-year molar loss	J Clin Periodontol 2023; 50(3): 348-357
Accuracy of artificial intelligence-based photographic detection of gingivitis	Int Dent J 2023; 73(5): 724-730
Automatic recognition of teeth and periodontal bone loss measurement in digital radiographs using deep-learning artificial intelligence	J Dent Sci 2023; 18(3): 1301-1309
Dentronics: tooth cleaning with a tactile collaborative robot -- an in vitro proof of concept [can be accessed on DOSS free by logging in on this page]	Int J Computerized Dent 2023; 26 (2): 167-174
Determination of the stage and grade of periodontitis according to the current classification of periodontal and peri-implant diseases and conditions (2018) using machine learning algorithms	J Periodont Implant Sci 2023; 53(1): 38-53
Artificial intelligence in periodontology: a scoping review	Dent J (Basel) 2023; 11(2): 43
Artificial intelligence applications for the radiographic detection of periodontal disease: a scoping review	J Calif Dent Assoc 2023; 51(1): 2206301
Identifying factors associated with periodontal disease using machine learning	J Int Soc Prev Community Dent 2022; 12(6): 612-622
Systematic comparison of machine learning algorithms to develop and validate predictive models for periodontitis	J Clin Periodontol 2022; 49(10): 958-969



**PERIODONTOLOGY:
ARTIFICIAL INTELLIGENCE & ROBOTICS**

Application of deep machine learning for the radiographic diagnosis of periodontitis [can be accessed on DOSS free by logging in on this page]	Clin Oral Investig 2022; 26(11): 6629-6637
Deep learning in periodontology and oral implantology: A scoping review https://onlinelibrary.wiley.com/doi/10.1111/jcpe.14023 [can be accessed on DOSS free by logging in on this page]	J Periodontol Res 2022; 57(5): 942-951
A generative adversarial inpainting network to enhance prediction of periodontal clinical attachment level	J Dent 2022; 123: 104211
Effects of artificial intelligence-assisted dental monitoring intervention in patients with periodontitis: A randomized controlled trial [Accessible from the Wiley link on this page]	J Clin Periodontol 2022; 49(10): 988-998
Estimation of alveolar bone loss in periodontitis using machine learning	Int Dent J 2022; 72(5): 621-627
Use of the deep learning approach to measure alveolar bone level [Accessible from the Wiley link on this page]	J Clin Periodontol 2022; 49(3): 260-269
Artificial intelligence for caries and periapical periodontitis detection [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Dent 2022; 122: 104107
Role of robotics and artificial intelligence in oral health and preventive dentistry – knowledge, perception and attitude of dentists	Oral Health Prev Dent 2021; 19(1): 353-363
Automatic detection of periodontal compromised teeth in digital panoramic radiographs using faster regional convolutional neural networks	Imaging Dent Sci 2020; 50(2): 169-174