What did you think of this package?

DENTAL IMPLANTS:
ARTIFICIAL INTELLIGENCE & ROBOTICS:

Dental implant planning using artificial intelligence: a systematic review and meta-analysis [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(5): 1631.e1-1631.e8
Accuracy assessment of robot-assisted dental implant surgery: an umbrella review of systematic reviews [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(5): 1630.e1-1630.e12
In vivo accuracy of autonomous dental implant robotic surgery: systematic review and meta-analysis [can be accessed on DOSS free by logging in on this page]	Int J Oral Maxillofac Implant 2025; 40(6): 683-690
Artificial intelligence segmentation errors in implant planning software programs: an overview [Accessible from the Wiley link on this page]	Clin Implant Dent Rel Res 2025; 27(5): e70095
Performance of artificial intelligence-based chatbots (ChatGPT-3.5 and ChatGPT-4.0) answering the International Team of Implantology exam questions [Accessible from the Wiley link on this page]	J Esthet Restor Dent 2025; 37(11): 2412-2416
Advancements in artificial intelligence algorithms for dental implant identification: A systematic review with meta-analysis [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(4): 1089-1098
The role of artificial intelligence in implant dentistry: a systematic review	Int J Oral Maxillofac Surg 2025; 54(11): 1098-1122
Clinical evaluation of AI-based three-dimensional dental implant planning: A multicenter study [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Dent 2025; 162: 106066
Current status and future perspectives of robot-assisted dental implant surgery	Int Dent J 2025; 75(3): 1608-1620
Automated segmentation of graft material in 1-stage sinus lift based on artificial intelligence: a retrospective study [Accessible from the Wiley link on this page]	Clin Implant Dent Rel Res 2024; online 16 December
Comparison between conventional and artificial intelligence-assisted setup for digital implant planning: accuracy, time-efficiency, and user experience [Accessible from the Wiley link on this page]	Clin Implant Dent Relat Res 2024; online 21 November
Accuracy of robotic computer-assisted implant surgery for immediate implant placement: A retrospective case series study [Accessible from the Wiley link on this page]	Clin Implant Dent Relat Res 2024; 26(6): 1279-1288
A transcrestal sinus floor elevation strategy based on a haptic robot system: An in vitro study [Accessible from the Wiley link on this page]	Clin Implant Dent Relat Res 2024; 26(6): 1270-1278
Comparative analysis of dental implant placement accuracy: Semi-active robotic versus free-hand techniques: A randomized controlled clinical trial	Clin Implant Dent Relat Res 2024; 26(6): 1149-1161

Last updated: 15 December 2025

DENTAL IMPLANTS:
ARTIFICIAL INTELLIGENCE & ROBOTICS:

Advancements of artificial intelligence algorithms in predicting dental implant prognosis from radiographic images: 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 2024; online 27 Nov doi.org/10.1016/j.prosdent.2024.10.036
Comparison of implant precision with robots, navigation, or static guides (request using https://www.smartsurvey.co.uk/s/PJHMV/)	J Dent Res 2024; online 25 Nov doi.org/10.1177/0022034524128556
Novel AI-based automated virtual implant placement: Artificial versus human intelligence	J Dentistry 2024; 147: 105146
Artificial intelligence and mixed reality for dental implant planning: A technical note [Accessible from the Wiley link on this page]	Clin Implant Dent Relat Res 2024; 26(5): 942-953
Emergence of artificial intelligence for automating cone-beam computed tomography-derived maxillary sinus imaging tasks. A systematic review	Clin Implant Dent Relat Res 2024; 26(5): 899-912
Deep learning in the overall process of implant prosthodontics: A state-of-the-art review [Accessible from the Wiley link on this page]	Clin Implant Dent Relat Res 2024; 26(5): 835-846
Accuracy analysis of robotic-assisted immediate implant placement: A retrospective case series	J Dentistry 2024; 146: 105035
Robot-assisted surgery for dental implant placement: A narrative review [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Dentistry 2024; 146: 105034
Accuracy of flapless surgery using an autonomous robotic system in full-arch immediate implant restoration: A case series [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Dentistry 2024; 145: 105017
High-precision all-in-one dual robotic arm strategy in oral implant surgery	BDJ Open 2024; 10: 43
Performance of an artificial intelligence--based chatbot (ChatGPT) answering the European Certification in Implant Dentistry exam [can be accessed on DOSS free by logging in on this page]	Int J Prosthodont 2024; 37(2): 221-224
Accuracy and precision of haptic robotic-guided implant surgery in a large consecutive series [can be accessed on DOSS free by logging in on this page]	Int J Oral Maxillofac Implants 2024; 39(1): 99:106
Application of artificial intelligence in dental implant prognosis: A scoping review [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Dentistry 2024; 144: 104924
Artificial intelligence serving pre-surgical digital implant planning: A scoping review	J Dentistry 2024; 143: 104862
Robot-assisted dental implant surgery procedure: A literature review	J Dent Sci 2024; online 19 Mar: doi.org/10.1016/j.jds.2024.03.011

DENTAL IMPLANTS:
ARTIFICIAL INTELLIGENCE & ROBOTICS:

A robust deep learning model for the classification of dental implant brands [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Stomatol Oral Maxillofac Surg 2024; online 8 Mar: 101818
Improved positional accuracy of dental implant placement using a haptic and machine-vision-controlled collaborative surgery robot: A pilot randomized controlled trial	J Clin Periodontol 2024; 51(1): 24-32
Robot assisted implant surgery: Hype or hope?	J Stomatol Oral Maxillofac Surg 2023; 124(6S): 101612
Accuracy of a novel semi-autonomous robotic-assisted surgery system for single implant placement: A case series	J Dent 2023; 139: 104766
Accuracy of autonomous robotic surgery for dental implant placement in fully edentulous patients: A retrospective case series study	Clin Oral Implants Res 2023; 34(12): 1428-1437
Deep learning-based segmentation of dental implants on cone-beam computed tomography images: A validation study	J Dent 2023; 137: 104639
Zygomatic implant placement using a robot-assisted flapless protocol: proof of concept [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	Int J Oral Maxillofac Surg 2023; 52(6): 710-715
Semi-autonomous two-stage dental robotic technique for zygomatic implants: An in vitro study [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Dent 2023; 138: 104687
Accuracy and efficiency of robotic dental implant surgery with different human-robot interactions: An in vitro study	J Dent 2023; 137: 104642
Artificial intelligence techniques for automatic detection of peri-implant marginal bone remodeling in intraoral radiographs	J Digital Imaging 2023; 36(5): 2259-2277
Accuracy of implant site preparation in robotic navigated dental implant surgery [Accessible from the Wiley link on this page]	Clin Implant Dent Relat Res 2023; 25(5): 881-891
Accuracy and safety of a haptic operated and machine vision controlled collaborative robot for dental implant placement: a translational study	Clin Oral Implants Res 2023; 34(8): 839-849
Machine learning and artificial intelligence: a web-based implant failure and peri-implantitis prediction model for clinicians [can be accessed on DOSS free by logging in on this page]	Int J Oral Maxillofac Implants 2023; 38 (3): 576-582
Effect of the number and distribution of fiducial markers on the accuracy of robot-guided implant surgery in edentulous mandibular arches: An in vitro study [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Dent 2023; (134): 104529

DENTAL IMPLANTS:
ARTIFICIAL INTELLIGENCE & ROBOTICS:

Artificial intelligence and augmented reality for guided implant surgery planning: A proof of concept [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Dent 2023; (133): 104485
Accuracy of dental implant placement with a robotic system in partially edentulous patients: A prospective, single-arm clinical trial [Accessible from the Wiley link on this page]	Clin Oral Implants Res 2023; 34(7): 707-718
Utilizing robotic technology to place dental implants [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Oral Maxillofac Surg 2023; 81 (7): 802-3
Robotics in oral surgery: my foray into the world of dental implant robotics [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Oral Maxillofac Surg 2023; 81(7): 799-801
Artificial intelligence in identifying dental implant systems on radiographs [can be accessed on DOSS free by logging in on this page]	Int J Periodont Restor Dent 2023; 43(3): 363-368
Identification of 130 dental implant types using ensemble deep learning [can be accessed on DOSS free by logging in on this page]	Int J Oral Maxillofac Implants 2023; 38 (1): 150-156
Deep learning and clustering approaches for dental implant size classification based on periapical radiographs	Sci Rep 2023; 13(1): 16856
Artificial intelligence applications in implant dentistry: a systematic review	J Prosthet Dent 2023; 129 (2): 293-300
Establishing a novel deep learning model for detecting peri-implantitis	J Dent Sci 2023; online 11 Dec doi.org/10.1016/j.jds.2023.11.017
Use of bioinformatic strategies as a predictive tool in implant-supported oral rehabilitation: a scoping [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Prosthet Dent 2023; 129 (2): 322.e1-322.e8
Accuracy of autonomous robotic surgery for single-tooth implant placement: A case series [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Dent 2023; 132: 104451
Autonomous robotic surgery for zygomatic implant placement and immediately loaded implant-supported full-arch prosthesis: a preliminary research	Int J Implant Dent 2023; 9(1): 12
Prediction of bone healing around dental implants in various boundary conditions by deep learning network	Int J Molec Sci 2023; 24(3): 1948
Deep learning-based prediction of osseointegration for dental implant using plain radiography	BMC Oral Health 2023; 23(1): 208

DENTAL IMPLANTS:
ARTIFICIAL INTELLIGENCE & ROBOTICS:

Is attention branch network effective in classifying dental implants from panoramic radiograph images by deep learning?	PLoS ONE 2022; 17(7): e0269016
Automated deep learning for classification of dental implant radiographs using a large multi-center dataset	Sci Rep 2023; 13(1): 4862
Deep learning-based dental implant recognition using synthetic X-ray images	Med Biol Engineer Comp 2022; 60(10): 2951-2968
Comparison the accuracy of a novel implant robot surgery and dynamic navigation system in dental implant surgery: an in vitro pilot study	BMC Oral Health 2023; 23(1): 179
Is attention branch network effective in classifying dental implants from panoramic radiograph images by deep learning?	PLoS ONE 2023; 17(7): e0269016
Predicting the risk of dental implant loss using deep learning [Accessible from the Wiley link on this page]	J Clin Periodontol 2022; 49(9): 872-883
Flapless dental implant placement using a recently developed haptic robotic system [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	Br J Oral Maxillofac Surg 2022; 60(9): 1273-1275
Accuracy of dental implant surgery using dynamic navigation and robotic systems: An in vitro study [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Dent 2022; 123: 194170
A pilot study of a deep learning approach to detect marginal bone loss around implants	BMC Oral Health 2022; 22(1): 11
Evaluation of a custom-designed human-robot collaboration control system for dental implant robot	Int J Med Robotics Comp Assist Surg 2022; 18(1): e2346
Accuracy of haptic robotic guidance of dental implant surgery for completely edentulous arches [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Prosthet Dent 2022; 128(4): 639-547
Guided innovations: Robot-assisted dental implant surgery [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Prosthet Dent 2022; 127(5): 673-674
Robotic assisted drilling systems and prosthetically-driven implant rehabilitation: the present and future? [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Oral Maxillofac Surg 2021; 79 (11): 2183-5
Automated identification of dental implants using artificial intelligence [can be accessed on DOSS free by logging in on this page]	Int J Oral Maxillofac Impl 2021; 36(5): 918-923
Automated identification of dental implants using artificial intelligence [can be accessed on DOSS free by logging in on this page]	Int J Oral Maxillofac Implants 2021; 36(5): 918-923

DENTAL IMPLANTS:
ARTIFICIAL INTELLIGENCE & ROBOTICS:

Predictive modeling for peri-implantitis by using machine learning techniques	Sci Rep 2021; 11(1): 11090
A deep learning approach for dental implant planning in cone-beam computed tomography images	BMC Med Imaging 2021; 21(1): 86
Artificial intelligence in fixed implant prosthodontics: a retrospective study of 106 implant-supported monolithic zirconia crowns inserted in the posterior jaws of 90 patients	BMC Oral Health 2020; 20(1): 80
Development of an artificial intelligence model to identify a dental implant from a radiograph [can be accessed on DOSS free by logging in on this page]	Int J Oral Maxillofac Implants 2020; 36(6): 1077-1082
Accuracy and deviation analysis of static and robotic guided implant surgery: a case study [can be accessed on DOSS free by logging in on this page]	Int J Oral Maxillofac Implants 2020; 36(5): e86-e90