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## Artificial Intelligence in Oral Surgery – A Review

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## Email Id: <a href="mailto:serviceheb@gmail.com">serviceheb@gmail.com</a> ABSTRACT:

Artificial Intelligence (AI) has significantly influenced various medical fields, including oral surgery. This review explores the diverse applications of AI in oral surgery, ranging from diagnostic imaging to surgical planning, robotic-assisted procedures, and postoperative care. AI technologies, such as deep learning algorithms and convolutional neural networks, enhance the accuracy of diagnosing dental pathologies, assist in preoperative planning through 3D modelling and simulations, and facilitate precise surgical interventions using robotic systems. Moreover, AI aids in postoperative monitoring and predictive analytics, contributing to improved patient outcomes. Despite the promising advancements, challenges such as data quality, ethical considerations, and the integration of AI into existing healthcare systems remain. Addressing these challenges will be crucial for the continued adoption and optimization of AI in oral surgery. Future directions include the development of advanced AI algorithms, integration with augmented and virtual reality, and expanding AI's role in personalized treatment and telemedicine. This review underscores the transformative potential of AI in enhancing the precision, efficiency, and personalization of oral surgical care.

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