

# The current landscape of oral and maxillofacial surgery: An analytical overview



Recent advancements in the field of oral and maxillofacial surgery have been fuelled by a remarkable wave of innovation and collaboration among a diverse group of surgeons, researchers, and academicians. This dynamic partnership has ushered in a transformative era, radically enhancing various surgical practices, and influencing the trajectory of this specialized branch of medicine. The development and refinement of cutting-edge surgical techniques have opened new frontiers in the realm of complex procedures. For instance, groundbreaking methods in orthognathic surgery allow for precise correction of jaw misalignments, while advancements in oncologic and reconstructive surgeries provide new hope for patients facing severe injuries or cancers of the facial structures. Additionally, improved strategies in managing facial trauma have significantly elevated the standards of care, enabling healthcare professionals to achieve remarkable outcomes and restore not only function but also the aesthetic integrity of the face.

Artificial intelligence (AI) has demonstrated a clear capacity to enhance clinical workflows and improve patient outcomes. Despite this, its potential in oral surgery remains significantly underutilized. This editorial review will compellingly underline the transformative impact of AI in maxillofacial surgery, showcasing its vital contributions to advancing surgical outcomes and enhancing patient care. In the rapidly evolving landscape of medical and dental science, oral and maxillofacial surgery stands out as one of the fields undergoing the most profound transformation due to advancements in technology. How does this AI works:

- Speech recognition.
- Visual perception.
- Decision making.
- Language translation.
- Ability to arrive at a conclusion.
- Can analyse visual data include audio and video.

Where and How AI can help in Maxillofacial Surgery

- Making a confirm diagnosis.
- Determination of prognosis.
- Analysis of radiographic and cytologic reports.
- Pre-operative analysis.
- Surgical planning and complication management.

Possibilities of risk and errors

- Insufficient improvement.
- Mistrust and hesitancy of patients.

Maxillofacial surgery is profoundly impacting our society across various dimensions, and the recent advancements in this field present exciting possibilities for future medical practices. Yet, for many medical professionals and researchers, there exists a veil of uncertainty surrounding the scope of what oral surgeons are authorized to undertake. This ambiguity extends to the promising areas where their expertise can be effectively applied, particularly in the realms of trauma management and oncology. Moreover, the intricacies of the limitations and potential risks associated with maxillofacial surgical interventions in cases of trauma and oral cancer remain poorly understood by a significant number of healthcare professionals. As such, there is an urgent need for clearer communication and education regarding the capabilities and constraints of oral surgeons, as well as the critical considerations that must guide their practice in these complex and vital areas of patient care.

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## Conflicts of interest

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