

## 60. Eagle's eye in dentistry - scan your way to redefine precision.

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The major cause of failure of fixed restoration is the inadequate marginal fit associated with the conventional techniques. To overcome the difficulties associated with conventional techniques, scanners and cad/cam (computer-aided design and manufacturing) technologies were developed for dental practice. The use of digital models alleviates many of the challenges posed by stone models made from conventional impressions, which include the burden of storage, the risk of damage or breakage, and the difficulties in sharing the data with other clinicians involved in the patients' care. The last decade has seen an increasing number of scanning devices, and these are based on different technologies; the choice of which may have an impact on clinical use. Scanners are the devices used for capturing optical impressions, which reduce patient discomfort. Intra-oral scanners are time-efficient and simplify clinical procedures for the dentist, eliminating plaster models and allowing better communication with the dental technician and with patients; the current scanners are sufficiently accurate for capturing impressions for fabricating a whole series of prosthetic restorations (inlays/onlays, copings and frameworks, single crowns and fixed partial dentures) on both natural teeth and implants; in addition, they can be used for smile design, and to fabricate post and cores, removable partial prostheses and obturators. The proposed presentation highlights the salient features of various scanners and their role in dentistry.

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