

# Does the Immediate Dental Implant Placement into Fresh Extraction Sockets Decrease the Marginal Bone Lose?

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The insertion of dental implants immediately after teeth extractions has become a routine clinical procedure in implant dentistry. This treatment modality has received much attention and has shown favorable results [1-4]. Several studies have reported that successful osseointegration is possible when implants are inserted immediately after tooth extraction, with similar survival rates when compared to implants inserted in healed sites with or without augmentation procedures [5-9]. Placing an implant immediately after tooth extraction offers several advantages, including a decrease in rehabilitation treatment time, fewer surgical sessions, the ability to place the fixture in an ideal axial position and positive psychological impact on the patient [10,11]. Another advantage of implant placement in the extraction socket is the counteracting of the hard tissue resorption that occurs following tooth extraction [12,13]. However, there are some topics as esthetic outcome and preservation of alveolar process, are still matter of debate [14]. In animal and human studies, it was shown that immediate post extraction implant placement failed to prevent the natural bone resorption that occurred in the socket walls and especially in the buccal wall [15]. It was also shown that this bone remodeling resulted in a marked reduction of the residual ridge dimension and occurred in the first months after tooth extraction [16]. Gordon L. Douglas stated that immediate implants ought to have 3- and 4-walled sockets, minimal periodontal bone resorption, sufficient bone to stabilize the implant, and minimal circumferential defects [17]; however in a prospective clinical study, Schropp et al. [18] observed that both delayed and immediate approach resulted in statistically significant reduction in bony defects. Other study observed less bone resorption around immediate implants compared to delayed implants [19]. The experiment of Caneva et al. [20] installed immediate implants into extraction sockets in the mandibles of six dogs and concluded that implants should be positioned

approximately 1 mm below the alveolar crest and in a lingual position in relation to the center of the alveolus to reduce or eliminate the exposure above the alveolar crest of the endosseous rough portion of the implant. From the above mentioned findings, there is still need to perform further case-control studies and possibly randomized studies with large sample sizes in order to confirm the beneficial effects of immediate dental placement into fresh extraction sockets.

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