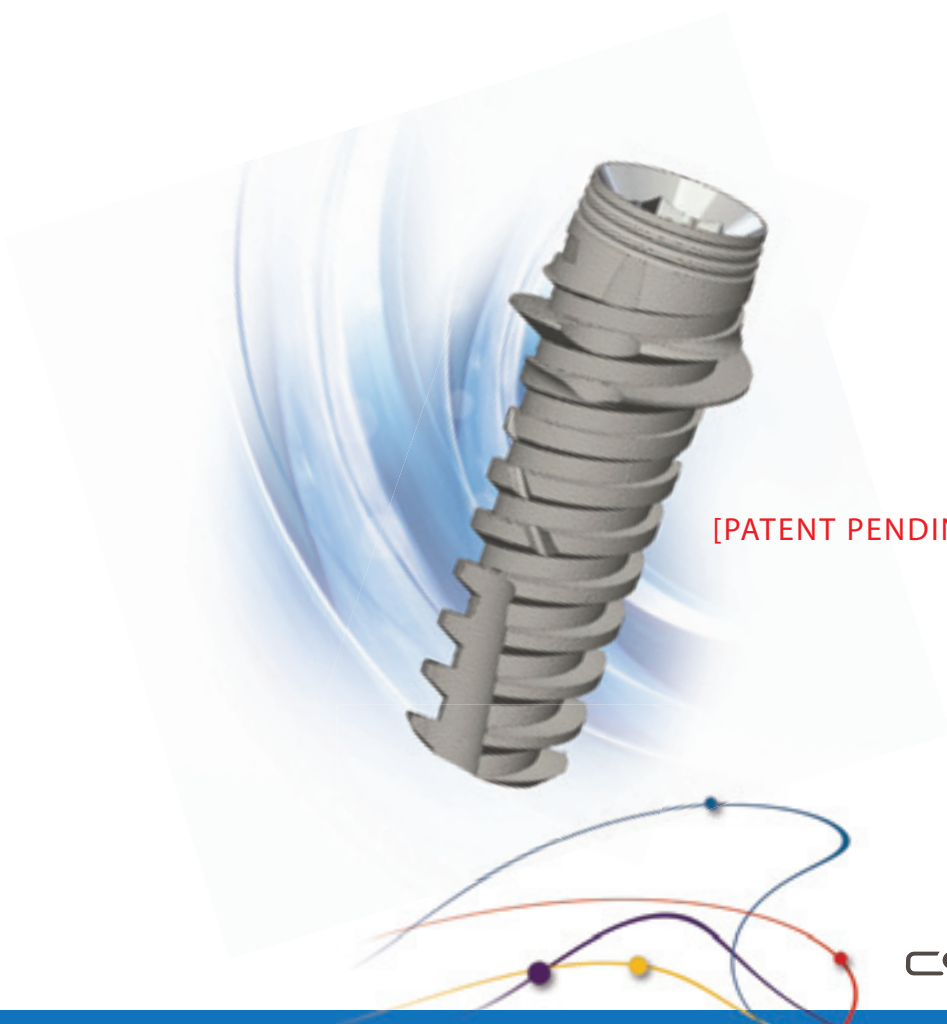


The Saturn immediate load post extraction dental implant: a one year pilot study of 140 consecutive implants

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[PATENT PENDING]

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The desire for immediate load restoration of dental implants, particularly in the anterior esthetic zone, requires specific implant design strategies to enhance primary stability. In the presence of extraction sites, often with compromised bone, implant fixation is obtained apically and palatally. The macro architectural design of the implant establishes initial mechanical fixation, which is crucial in minimizing implant mobility in the first 3-4 weeks of function.

A new implant design, the Saturn dental implant, employs a unique new strategy; that of extended sub-crestal threads, expanded outward in a wing-like effect to engage socket walls mid-crestally for added primary stability.

In order to determine the clinical efficacy of this new implant, a study was undertaken to evaluate the implant in both jaws under conditions of immediate function.

Materials and Methods: Three private clinics and the Tiberias Medical Center, Upper Galilee Dental Center and the Department of Oral and Maxillofacial Surgery Poria governmental Hospital, treated patients using the following selection criteria: Teeth in the anterior dental arches, including the bicuspid, which required dental extraction and implant placement for immediate loading. When insertion torque was less than 35Ncm the implant was not loaded. Provisional restorations were to be fabricated and placed on the day of implant placement or 1-2 days later.

Results: A total of 140 implants were placed of which 95 were immediately loaded and 45 left submerged for staged loading. Of those implants placed into immediate function, 83 were in the maxilla and 12 in the mandible. Implants were examined at 1,6,12 and 16 weeks post placement, at which time the final restoration was placed. There was also a one year follow-up. All implants were placed into functional occlusion and judged to be esthetically satisfactory.

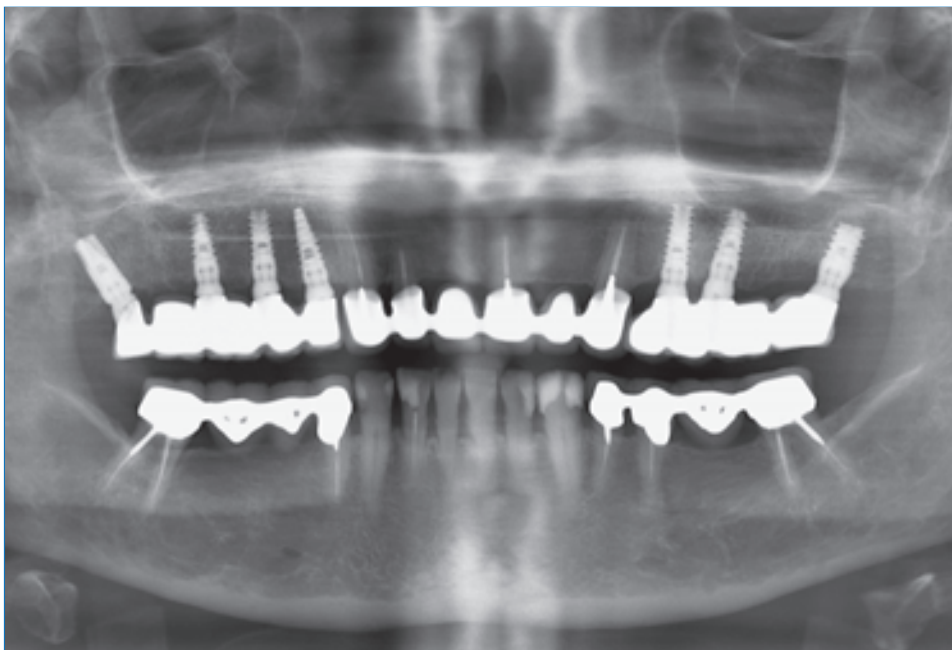
Conclusion: A pilot study of 140 consecutively placed Saturn dental implants, followed up to one year after placement, revealed a 96.4% implant success rate despite immediate loading, in the presence of large extraction defects and poor quality bone. These favorable preliminary findings must now be corroborated by longer term studies.



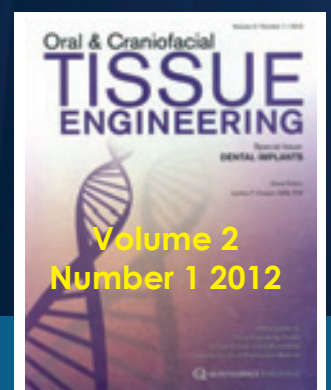
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**New-Design Dental Implants: A 1-Year
Prospective Clinical Study of 344
Consecutively Placed Implants Comparing
Immediate Loading Versus Delayed
Loading and Flapless Versus
Full-Thickness Flap**

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Purpose: This study compared the 1-year success rates of immediately loaded dental implants to delayed loaded implants, regardless of the surgical technique (flapless or conventional full-thickness flap) and regardless of extraction time. It also examined whether the surgical technique had an influence on the success rate of the immediately loaded implants.

Materials and Methods: A total of 344 dental implants, some with a new expanded winged-thread design, were placed in 155 patients; 53% of the implants were immediately loaded. Of the immediately loaded implants, 68.9% were placed with a flapless surgical technique and 88% were placed in extraction sites. Pocket depth, mobility, bleeding on probing, presence of erythema, pain, or radiolucency around the implants, as well as clinical findings, were recorded. Implants were followed from placement through definitive restoration. Descriptive, univariate, and multivariate analyses using clustered marginal approach of the Cox proportional hazards model were applied.

Results: Of the 344 implants in the study, (2.9%) failures were recorded, 7 of which were immediately loaded; however, there was no significant difference in failure rates between the immediate and delayed loading groups. Seven of the implants that failed were placed with a flapless (extraction site) technique; however, there was no significant difference in the failure rates between the flapless versus full-thickness flap technique in immediately loaded implants.

Conclusions: The clinical success of immediately loaded implants after 1 year showed no difference from the success rate of delayed implants. The implantation procedure (flapless versus conventional flap) or extraction time also had no influence on the success rate of the immediately loaded implants.

