

# Immediate Nonfunctional Loading of NobelPerfect Implants in the Anterior Dental Arch in Private Practice – 5-Year Data

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## ABSTRACT

*Background:* The concept of scalloped implants to maintain the natural contour of the alveolar ridge has been a source of controversy for many years.

*Purpose:* This study examined the long-term clinical performance of the scalloped NobelPerfect implant in a one-stage procedure (immediate loading in the esthetic zone).

*Materials and Methods:* In 20 patients, immediate prosthetic restorations were placed on 31 NobelPerfect implants in a private practice and followed for up to 78 months. Twenty-one implants were placed immediately after extraction, seven implants were placed after osseous consolidation of the extraction sockets, and three implants were placed secondary to extended alveolar ridge augmentation procedures. All implants were provisionalized on the day of implant placement and adjusted to clear all contacts in centric occlusion and during eccentric movements. Outcome variables were success rates, marginal bone levels, and pink esthetic score (PES) assessed per implant.

*Results:* One implant failed after 1.4 months. Five patients with six implants in total were scored in the 5-year follow-up as dropouts. Mean follow-up period of remaining 24 implants was 65 months (range, 55–78 months). Cumulative success rates according to the criteria specified by Smith and Zarb were 96.8%. Marginal bone levels averaged 1.1 mm above the first thread. Mean PES ratings were 10.5 (range, 3–13).

*Conclusions:* Survival rates, marginal bone levels, and esthetic results suggest proof of principle for the preservation of the interproximal bony lamella with a scalloped implant design in long-term data.

**KEY WORDS:** flapless implant placement, immediate implant placement, immediate implant provisionalization, long-term results, scalloped implant

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## INTRODUCTION

The concept of scalloped implants to maintain the natural contour of the alveolar ridge has been a source of controversy for many years. Only a short period of time after the introduction of the NobelPerfect implant,<sup>1</sup>

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inconsistent data were reported ranging from impressive bone preservation and overwhelming esthetic results<sup>2-9</sup> to severe interproximal bone loss and subsequent collapse of the alveolar soft tissues.<sup>10</sup>

The reasons for these striking differences have never been fully elucidated, rendering scalloped implants to appear somewhat of a matter of belief in implantology. On principle, the scalloped shape of the implant table corresponds to the natural topography of the healthy marginal bone contour, suggesting better support of the interproximal papillae. However, it remained an open issue whether this theoretical advantage could be translated into long-term biological stability of the peri-implant bone and tissue.

Thus, early in 2003, we set out to systematically explore the clinical performance of the NobelPerfect implant and initiated a retrospective study, which