



# Placement of Alpha-Bio Tec's Narrow NeO Implant into a Fresh Socket in the Aesthetic Zone with Immediate Loading



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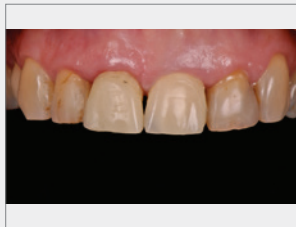
## Abstract

Delayed implant placement has proven to be a highly predictable and acceptable treatment method. The use of immediate loading on post-extraction implants, particularly in aesthetic zones, has risen considerably as patients actively seek shorter treatment times.

The aim of this case study is to illustrate the use of narrow diameter implants in the aesthetic zone with immediate loading, using the new Alpha-Bio Tec's NeO implant.

## Case Overview

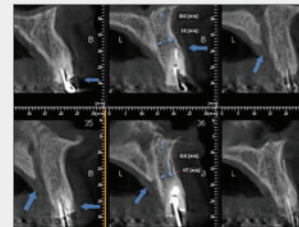
A 59-year old female patient wished to improve her esthetics in the anterior zone. Following clinical and radiological evaluations, teeth 21 and 11 were considered “non-restorable” (Fig. 1).



1  
Initial view of teeth 21 and 11

## X-Ray Examination

Excellent ridge width and height were demonstrated in the CBCT, suitable for immediate implant placement on the day of tooth extraction. No periapical pathology or other contraindication was observed. As a result, an extraction and immediate endosseous implantation and placement of a provisional restoration were proposed. Measurements showed suitable space for the placement of 2 Ø3.5 x 11.5 mm NeO implants (Fig 2).



2  
CBCT examination

## Materials Used

- Two Ø3.5 x 11.5 mm NeO implants (Alpha-Bio Tec., Israel)
- Two Esthetic Standard Abutments ETLAS3.6-CHC (Alpha-Bio Tec. Israel)
- 1.5mm MRDX1.5 Marking Drill (Alpha-Bio Tec. Israel)
- 2.0 mm DRX2.0 Standard Drill (Alpha-Bio Tec. Israel)
- 2.0/2.5mm Coated step Drill (Alpha-Bio Tec. Israel)
- Alpha-Bio's Graft Natural Bovine Bone.

## Surgical Phase

Preservation of the alveolar bone is the key to success in immediate implants. Extraction of the tooth was atraumatic, using periostomes and small periosteal elevators. The broken root of 11 was removed without excessive enlargement of the socket and without damage to the buccal plate (**Figs. 3,4**).



3

Extraction of the tooth



4

Extraction of the root

The osteotomy was prepared according to the manufacturer's drilling sequence. The Alpha-Bio Tec. step drills, which feature a step optimized to comply with implant body design, provide more stable guidance than other similar drills due to the narrower diameter leading the drilling process. (**Figs. 5, 6**)



5

Drilling using Alpha-Bio Tec. step drills



6

Occlusal view of the osteotomy

The first implant was placed in the socket of 21. The NeO implant's macro design achieves very high primary stability due to its tapered core and variable thread design, resulting in excellent bone condensing ability (**Fig. 7**).



7

Implant placement in socket 21

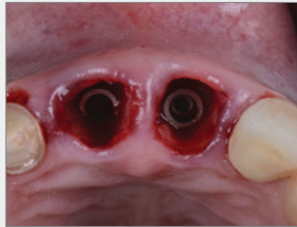
Implant placement in socket 11 followed, the success of which was attributed to the cervical part of the implant which has micro threads and two cutting flutes to reduce pressure on the cortical bone (**Fig. 8**)



8

Implant placement in socket 11

The NeO implant was placed palatally to preserve the buccal bone and increase the gap between the buccal bone and the implant. **(Fig. 9)**



**9**  
Occlusal view following  
implantation

This gap was filled with bovine xenograft **(Figs. 10)**.



**10**  
Gap filled with bovine  
xenograft

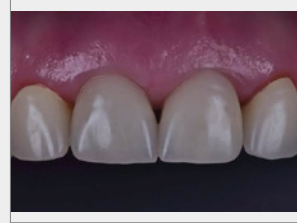
Screwed provisional restorations were inserted on the day of surgery **(Fig. 11)**, the results of which are shown 7 days and 5 weeks after of the surgery **(Figs. 12, 13)**.



**11**  
Screwed provisional  
restorations



**12**  
View 7 days after surgery



**13**  
View 5 weeks after  
surgery

The case will be finalized and updated in the coming months with the delivery of the final prosthetics to the patient.