

Long-term clinical success and stable bone levels with the Neoss Implant System

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Patient: 41 year old healthy woman with good oral hygiene. Non-smoker with good compliance.

Clinical situation: Missing first molars on both sides of the mandible.

Treatment plan: With a two-stage surgical approach, place two Neoss implants. Use NeoLink abutments for single crown restorations.



Figure 1

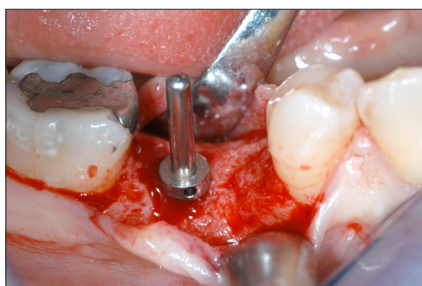


Figure 2

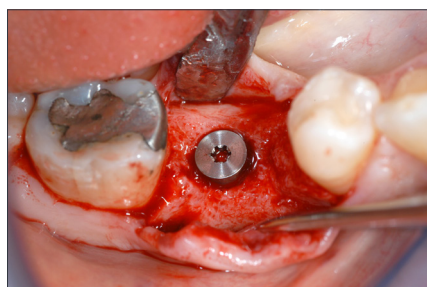


Figure 3

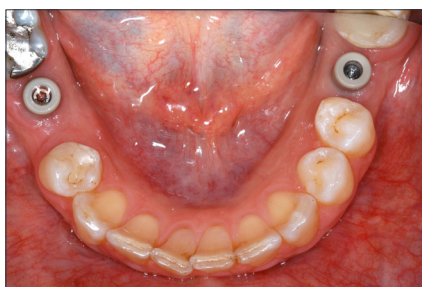


Figure 4



Figure 5



Figure 6



Figure 7



Figure 8

A healthy patient with good oral hygiene presented with two bilateral missing teeth in the first molar area of the mandible. The right molar area having a large gap giving the choice of placing one or two implants in this area (Figure 1).

A total of two Neoss implants (4.0×11 mm) were placed in a slight supracrestal position in the right and left molar area respectively. For the right first molar area a distal implant position for a single implant placement was chosen, ensuring correct position and direction during drilling with a direction gauge (Figure 2) to allow for a mesial cantilever. It is crucial to achieve good primary stability and correct position and direction of the implant to allow for controlled loads. A cover screw was placed and the implants were left submerged during the 12-week healing period (Figure 3).

After reopening, PEEK healing abutments were connected and soft tissue was allowed to heal for an additional 2 weeks before impression taking (Figure 4). Impression copings were attached allowing for an open impression tray modified with access holes that matched the implant positions (Figure 5 and 6).

The lab created cast, wax up frameworks in gold (Figure 7) on NeoLink abutments. The cantilever was placed mesially since bite forces are lower on the mesial side than on the distal side. The tooth mesial to the cantilever is crucial for sensory feedback to not overload the cantilever. The final crowns were gold ceramic screw retained single crowns (Figure 8). Tight contact between the crowns and adjacent teeth both mesially and distally was ensured to avoid problems with food impaction.



Figure 9



Figure 10

At time of prosthetic delivery the PEEK healing abutments were disconnected and healthy soft tissue around the implant was revealed (Figure 9).

The definitive prostheses were tried (Figure 10 and 11). Articulating foil was used to avoid direct occlusal contacts. The screw access holes were closed after try-in and delivery.

Clinical situation after 14 years shows stable soft tissue levels over time (Figure 12).



Figure 11



Figure 12

Bone levels also remained stable over the entire 14 years as shown by the radiographic baseline (Figure 13 and 14) and 14 year follow-up (Figure 15 and 16). Thus, this case shows that with the Neoss implant system, stable long-term bone and soft tissue levels can be achieved.



Figure 13



Figure 14



Figure 15



Figure 16