

Immediate Smile[®] bridge

CAD/CAM restorations for immediate loading

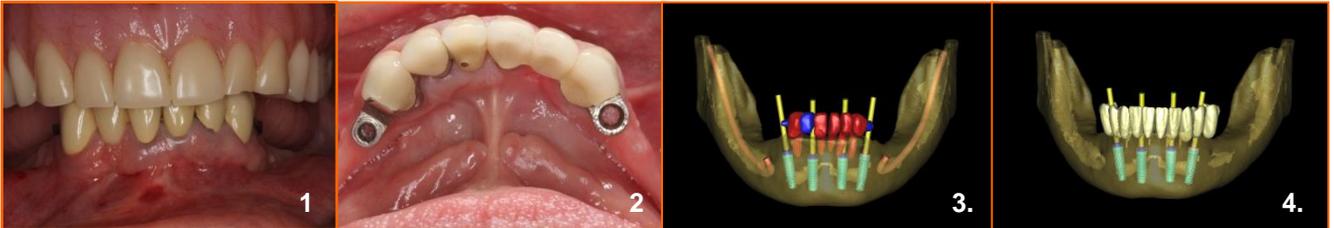
CASE REPORT: Reduction guide facilitated tooth extractions, bone reduction and guided implant placement with immediate prosthetic loading

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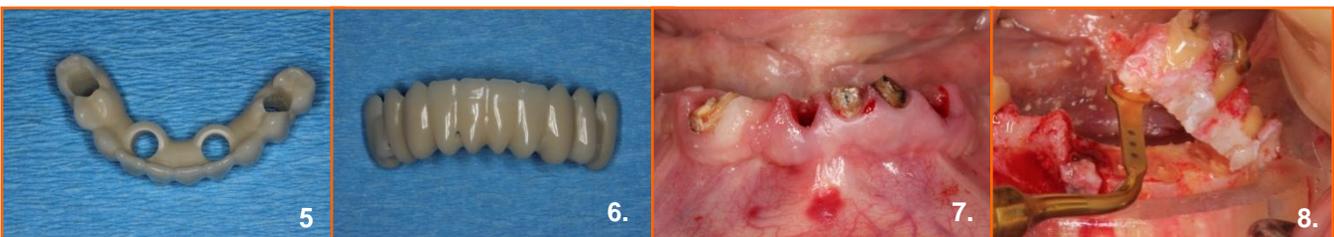


"In our view, the most important aspect of what SimPlant has brought to us professionally is the ability to manage information in an organized and forthright manner and consult with our patients in an atmosphere of disclosure and informed consent."

Clearly the ability to engage a patient's understanding of the challenges associated with their treatment is contemporary patient care in the 4th dimension."



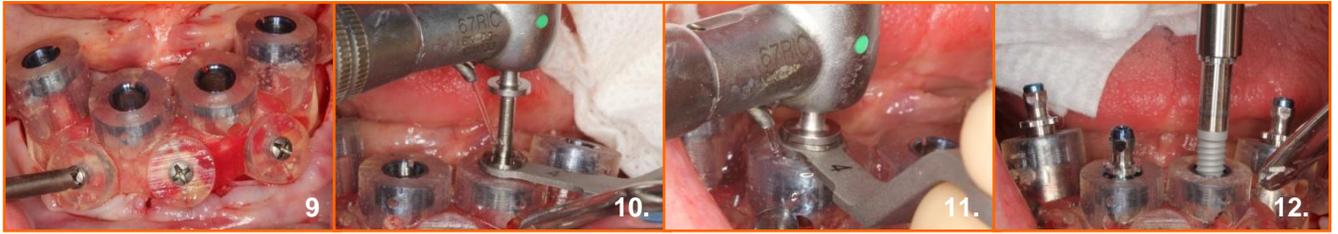
1. Pre-operative view: maxillary denture and mandibular metal-ceramic fixed splint and bridge. The bridge has failed due to caries and root fractures.
2. Occlusal view of the bridge containing two attachments for support of a removable denture.
3. Biomet 3i tapered osseointegrated implants planned with SimPlant Planner software viewed three-dimensionally.
4. Virtual Tooth set-up planned with SimPlant Planner software using the existing prosthesis to guide and align future implant-supported interim prosthesis relative to planned implant placement.



5. CAD/CAM-milled Immediate Smile bridge. The prosthetic space to accommodate the temporary cylinders has been provided during the online ordering process.
6. The bridge has small injection holes at the vestibular side which are used to inject a composite cement. With this technique, the temporary cylinders are secured and a passive fit is achieved.
7. Removal of the metal-ceramic bridge.
8. A SurgiGuide bone reduction guide makes it possible to horizontally section the teeth and reduce the bone simultaneously using Piezo-electric instrumentation. This simplified root removal without traumatizing the bone.

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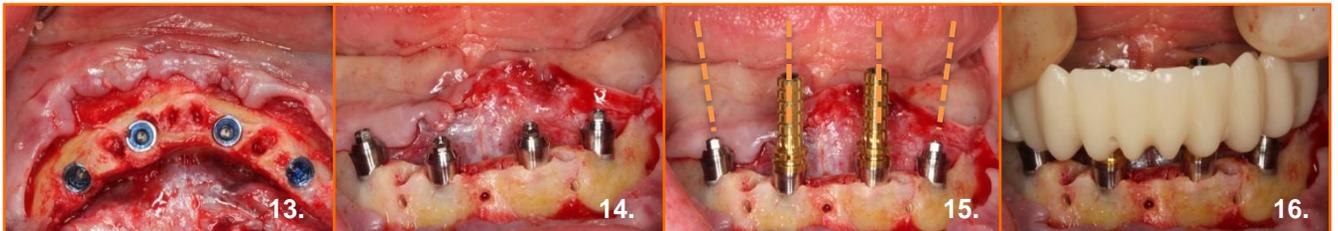
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9. The Biomet 3i Navigator SAFE SurgiGuide is secured on the reduced bone using three fixation screws.

10-11. Initial pilot drilling using the Navigator surgical kit. The SAFE SurgiGuide controls position, angulation and depth of the drill.

12. Implant placement through the SurgiGuide using Biomet 3i Navigator implant holders to allow for accurate implant installation with depth control.



13. Post-operative view after removing the SurgiGuide. All implants are placed correctly as planned in SimPlant.

14. Placement of low profile tapered abutments for a multiple-unit screw-retained interim provisional restoration.

15. The parallelled temporary cylinders are placed directly in the mouth, the non-parallelled cylinders are placed inside the bridge. This technique allows for compensation of the different insertion axis.

16. The non-parallelled cylinders are tightened onto the abutments after the restoration is seated.



17. The patient occlusion was adjusted to a repeatable and relaxed condylar hinge position. The cylinders are not yet secured, allowing the bridge to align itself into the correct occlusion. With this procedure, substantial reduction in time-consuming occlusal adjustments reduces the length of treatment time.

18. The temporary cylinders are secured onto the bridge by injecting SmartCem2 composite luting cement.

19-20. When all cylinders have been secured, the bridge is removed for further finishing outside the patient's mouth.



21. The abutment replicas are screwed onto the temporary cylinders and the remaining cervical gap is filled with SmartCem2. This ensures a smooth surface for optimal healing of the soft tissue.

22-23. Frontal and occlusal view of the Immediate Smile bridge.

24. Frontal view of the finished Immediate Smile bridge in maximal occlusion. Tooth 21 and 22 of the upper denture are slightly adapted to create an ideal, esthetic incisal plane.