

# Patent™ Symbiotic Teeth

## Clinical Case Selection



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## Patient

Male, 48 years old

## Year of surgery

2021

## Follow-up period

4.5 years

## Clinical situation

The patient had tooth #35 extracted elsewhere due to deep caries and acute pulpitis. He presented to the author's practice 8 weeks later, requesting a fixed restoration. Slight horizontal ridge collapse was noted. Soft-tissue thickness was 3 mm. Caries was present on the adjacent crowned tooth #36. The medical history included controlled type 2 diabetes, smoking (20 cigarettes/day), regular benzodiazepine use, and poor oral hygiene (BOP index: 38%). Planning involved the placement of a symbiotic tooth in region #35, treatment of tooth #36, and restoration of both sites with new single-tooth crowns.

## Surgical solution

A modified mini-roll flap was mobilized. The osteotomy was prepared according to the surgical protocol for D3 bone. A Patent™ Symbiotic Tooth was inserted in region #35 at low speed, with a final torque of 11 Ncm.

## Restorative solution

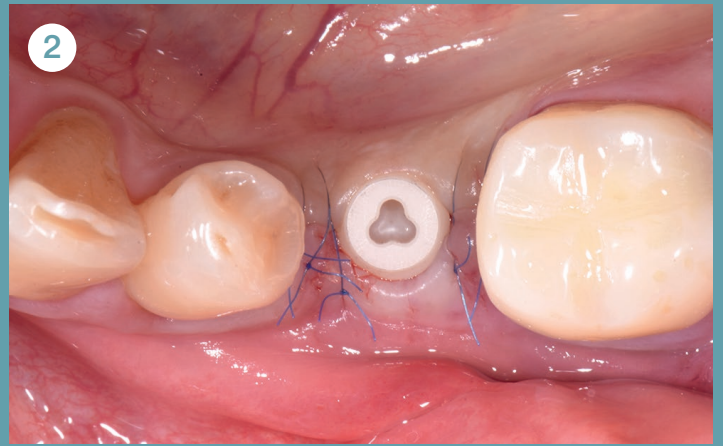
The glass fiber post was cemented and prepared 3 months post-op. A full-arch impression was taken. Partially veneered, individually characterized zirconia crowns were cemented on the symbiotic tooth in region #35 and the natural tooth #36.

## Outcome

4.5 years after insertion, the clinical situation in region #35 was comparable to that of a healthy natural tooth, characterized by healthy and stable soft tissue and shallow probing depths (Fig. 8).



3 months after tooth extraction, before insertion.



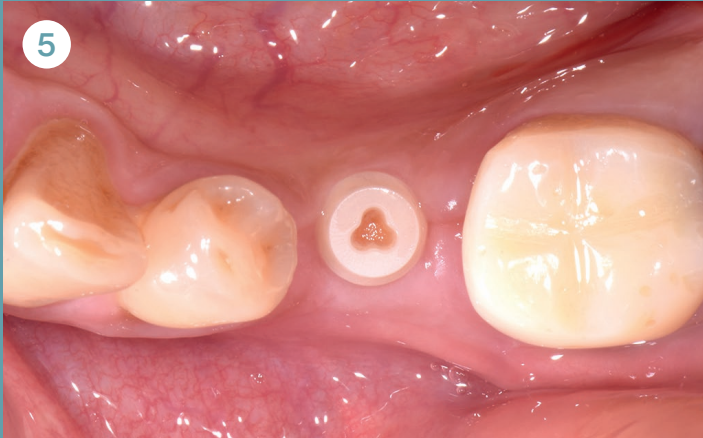
Situation after insertion.



5 days post-op: stage-appropriate healing.



2 weeks post-op: nonirritated soft tissue.



6 weeks post-op: nonirritated soft tissue.



3 months post-op, before prosthetic restoration.



3 years post-op: healthy and stable soft tissue.



4.5 years post-op: healthy soft tissue, shallow probing depths.



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## Patient

Female, 54 years old

## Year of surgery

2019

## Follow-up period

6 years

## Clinical situation

An approximately 20-year-old restoration spanning regions #45, #46, and #47 required replacement. Region #46 was edentulous. Tooth #45 had an endodontic restoration, while tooth #47 exhibited increased sensitivity due to ill-fitting margins. The plan was to place a symbiotic tooth in region #46 and, after successful integration, restore all three sites with single-tooth crowns.

## Surgical solution

A full-thickness flap was elevated in region #46. A surgical guide was positioned. The osteotomy was prepared at 600 RPM according to the surgical protocol for D2 bone. A Patent™ Symbiotic Tooth was inserted with a moderate final torque of 30 Ncm. The 3C™ Connection was sealed with Teflon tape.

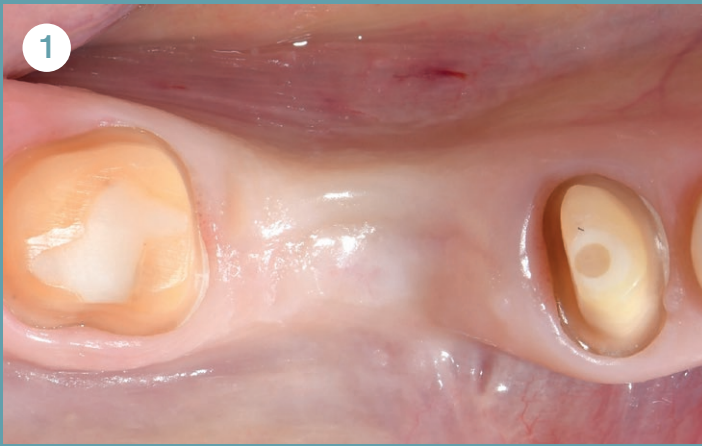
## Restorative solution

3 months after insertion, the glass fiber post was cemented into the 3C™ Connection and prepared with high-speed diamond burs of varying grit. The shoulder of the symbiotic tooth was prepared to create an optimal emergence profile. The entire arch, including the prepared post, was scanned. Monolithic zirconia crowns were fabricated in the dental laboratory and cemented in a subsequent session.

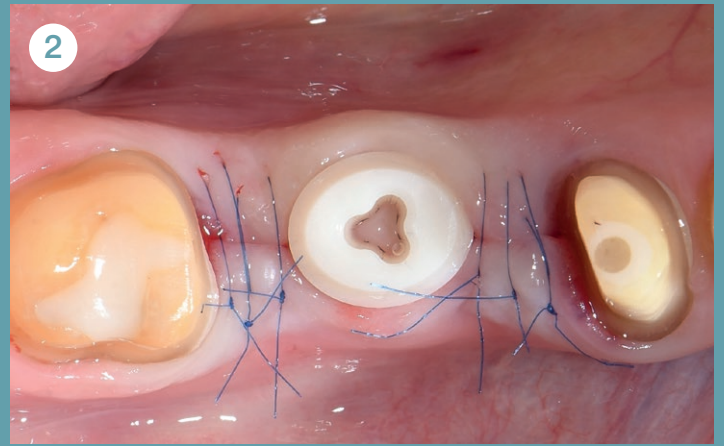
## Outcome

Compared to the situation after definitive restoration (Fig. 6), the soft tissue around the symbiotic tooth in region #46 remained healthy and stable after 6 years, whereas the natural teeth #45 and #47 showed signs of gingival recession (Fig. 8).

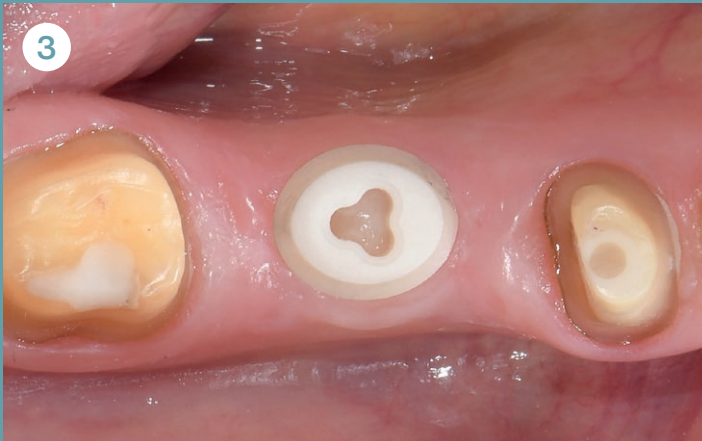




Initial situation.



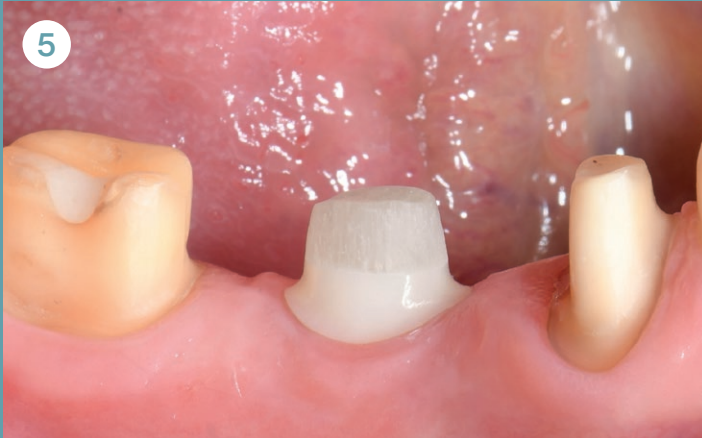
Situation after insertion.



3 months after insertion.



3 months after insertion, before post cementation and preparation.



Situation after preparation of post and shoulder of Symbiotic Tooth.



Situation after delivery of final crowns.



3.5 years post-op: healthy and stable soft tissue.



6 years post-op: healthy and stable soft tissue.



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**Dr. Filippo Battelli**  
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### Patient

Female, 55 years old

### Year of surgery

2021

### Follow-up period

3 years

### Clinical situation

Failing post-and-core restorations of teeth #11 and #21 required replacement. The treatment plan involved removal of the restorations, extraction of the remaining tooth roots, immediate placement of two symbiotic teeth, and restoration of both regions with final crowns following successful integration.

### Surgical solution

Vestibular incisions were made in regions #11 and #21. The old restorations were removed, the tooth roots were extracted, and the alveoli were curetted. A surgical guide was placed, and osteotomies were prepared according to the surgical protocol for D3 bone at 600 RPM. Patent™ Symbiotic Teeth were inserted with a moderate final torque.

### Restorative solution

Glass fiber posts were cemented and prepared 2 months post-surgery. A digital impression of the entire arch, including the prepared posts, was taken using an intraoral scanner. The posts were isolated with glycerin oil, and provisional crowns were cemented using a temporary cement mixture. Final crowns were delivered after 3 months of healing.

### Outcome

At the follow-up 3 years after final crown delivery (Fig. 10), the situation was characterized by healthy and stable soft tissue, resulting in excellent esthetics.

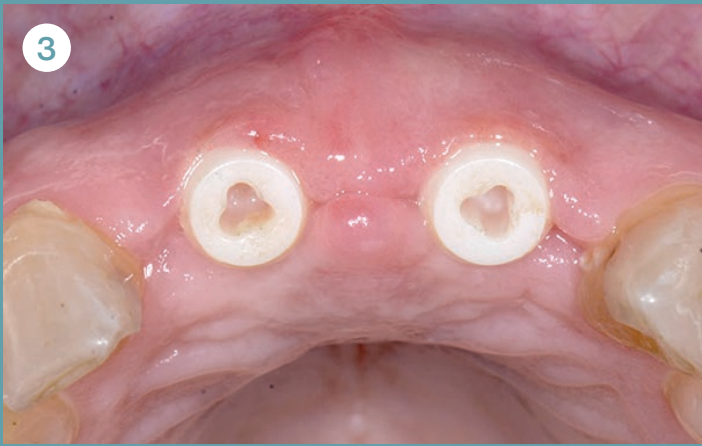


3 days post-op: stage-appropriate healing.



1 week post-op: stage-appropriate healing.





4 weeks post-op: nonirritated soft tissue.



2 months post-op: healthy soft tissue.



Situation after delivery of final crowns (3 months post-op).



1 week after delivery of final crowns: healthy soft tissue.



15 days after delivery of final crowns: healthy soft tissue.



6 months after delivery of final crowns: healthy soft tissue.



2 years after delivery of final crowns: healthy soft tissue.



3 years after delivery of final crowns: healthy soft tissue.

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