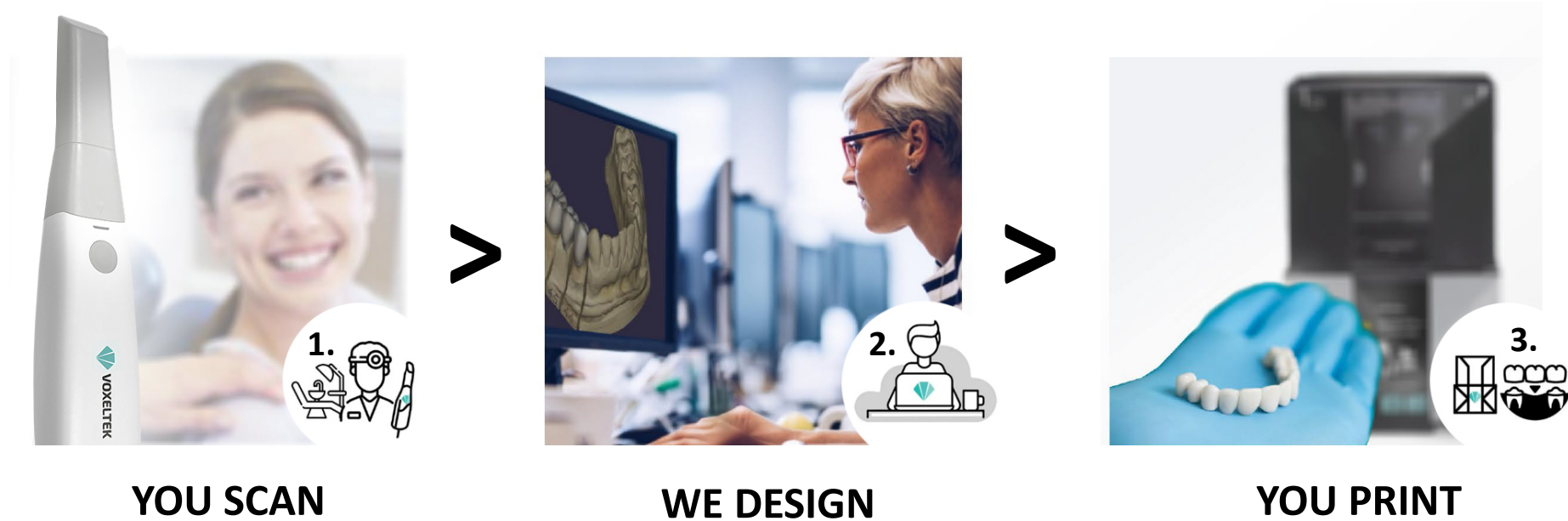




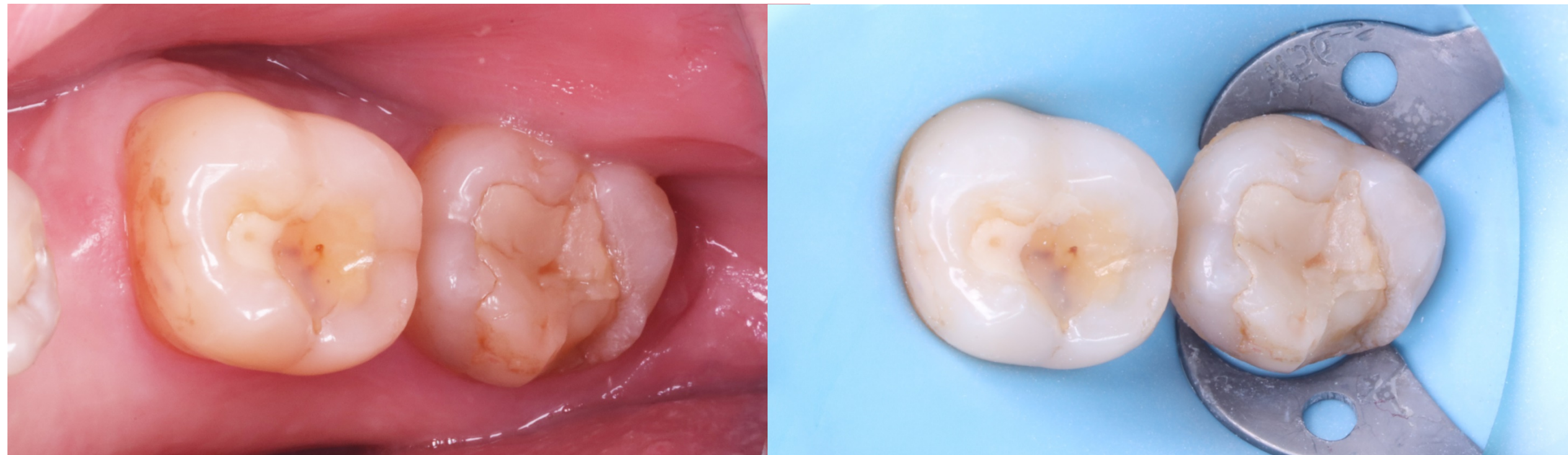
VOXELTEK
ACADEMY



A chairside story 3. / 3D printed permanent inlay

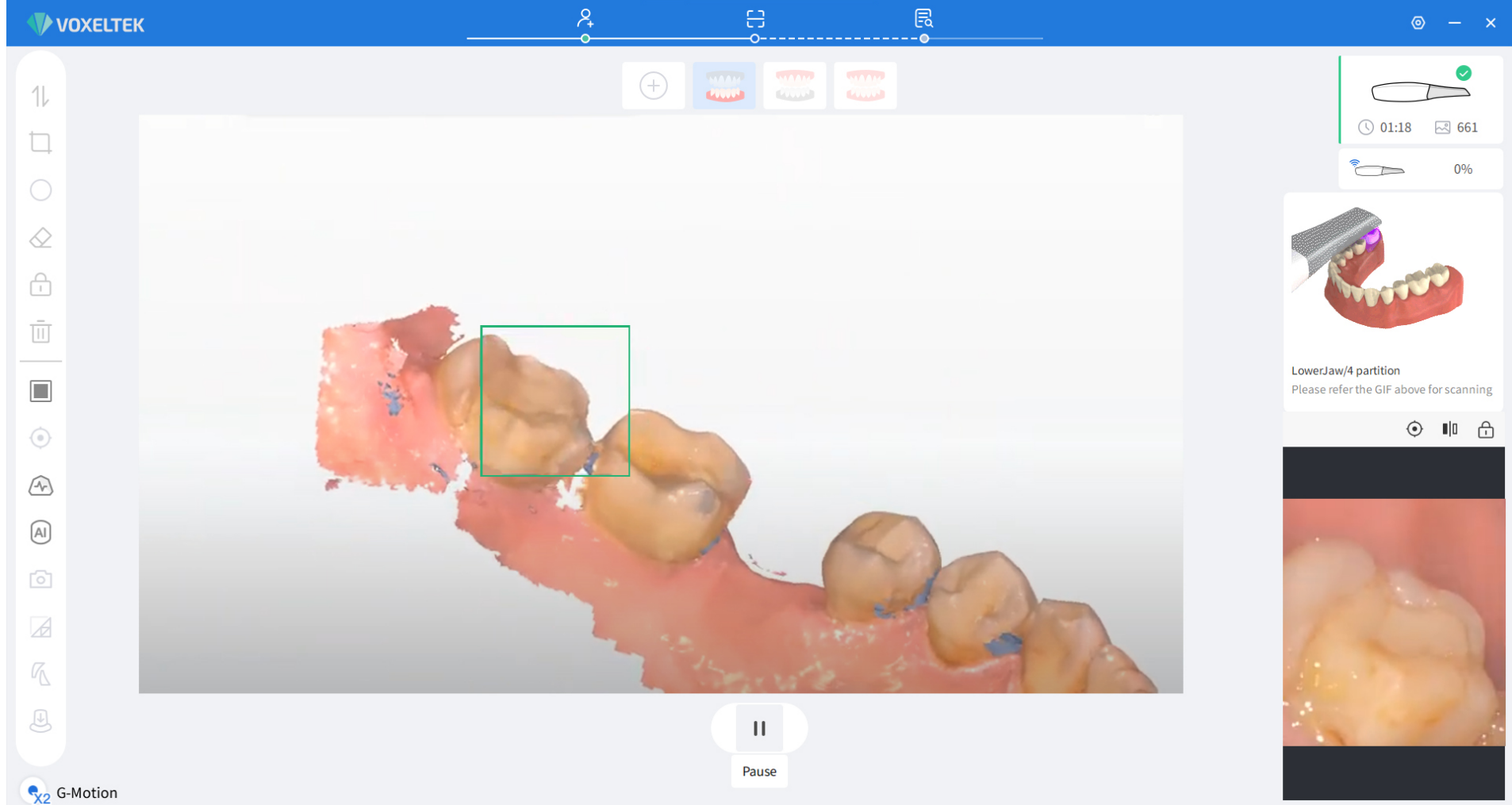


VOXELTEK.LIVE provides a chairside solution in which the dentist uses digital technology to prepare permanent restorations for the patient in a single session. The procedure uses digital impression from an intra-oral scanner to create a computer-aided design and 3D printing to fabricate inlays or crowns, instantly in the office, eliminating the need for the patient to return to the dentist's office multiple times.



1. Initial State - Old Composite Filling Damaged:

The original condition of the teeth with previous composite fillings, the disto-lingual cusp has broken off. The patient was a 50-year-old pilot who needed a solution that could be carried out within a single visit.



2. Preoperative Intraoral Scanning before treatment:

The patient is anaesthetised and until the drug starts to take effect the lower and upper jaws as well as the occlusion are scanned. This way the exact original shape of the tooth can be restored.



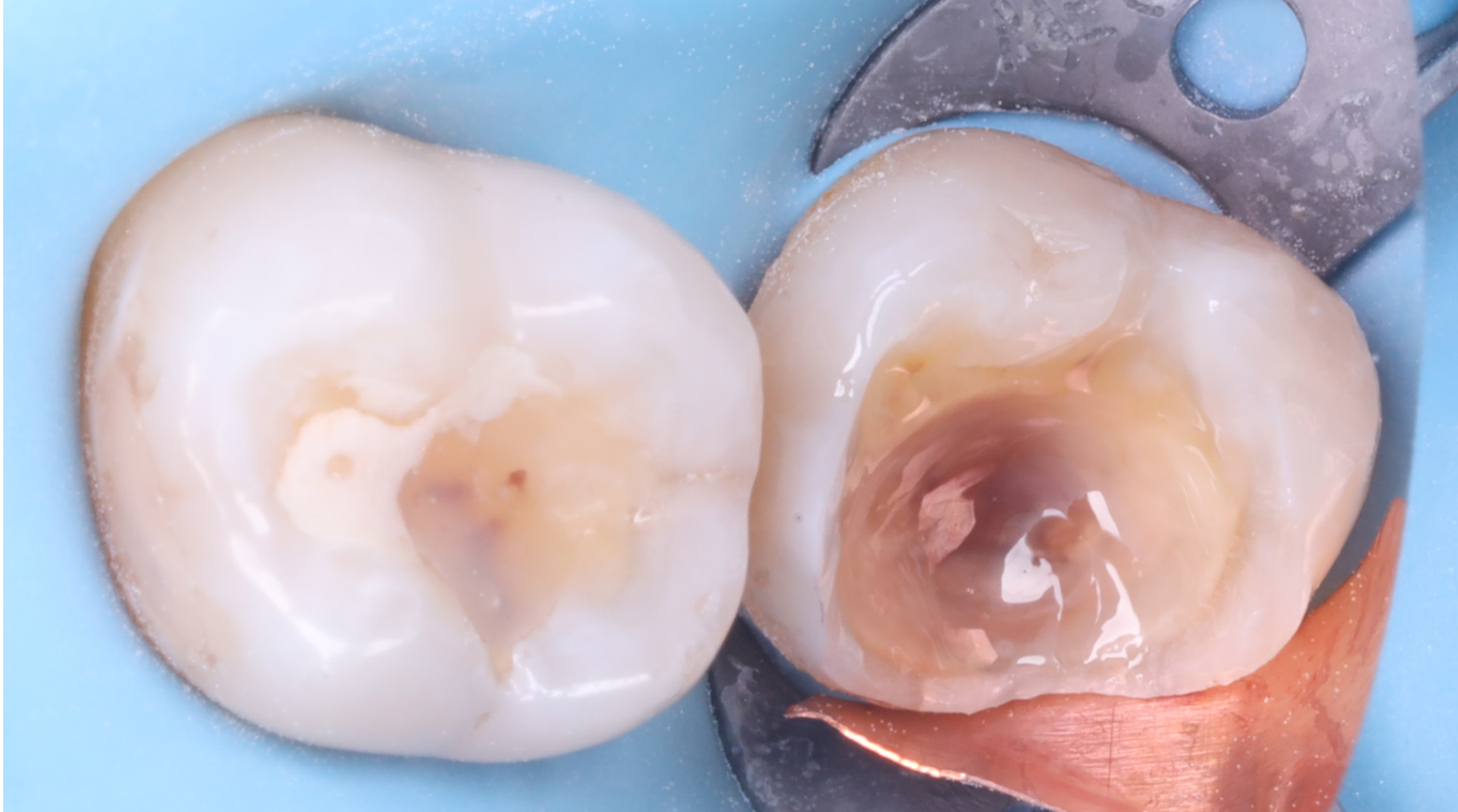
3. Cavity Preparation:

The cavity is burred clean around the edges until most of the old composite filling is removed. At the deepest region, close to the pulp, air-particle abrasion was applied.



4. Cavity Preparation:

Clean surface after air-particle abrasion.



5. Adhesive treatment - IDS:

The tooth was treated with gold standard self etching system. Immediate Dentin Sealing is applied before taking the digital impression and provides a higher bonding force to the restoration.



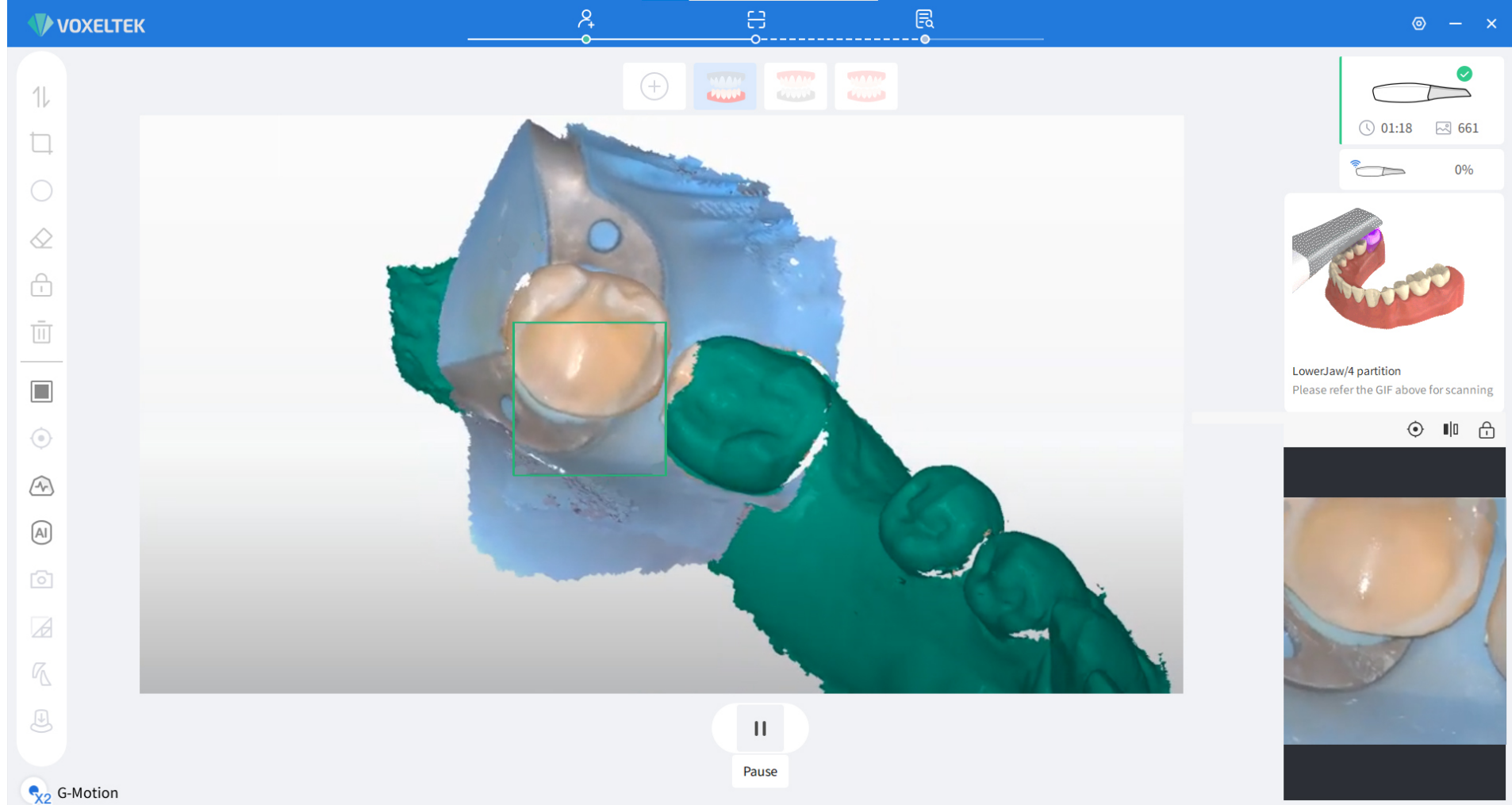
6. Adhesive treatment - SFRC

Undercut areas have been built up with Short Fiber Reinforced Composite to prevent crack formation.



7. Adhesive treatment - BIOBASE

The biobase has been applied, this is the final composite layer to which the restoration will adhere.



8. Postoperative Intraoral scanning:

A second intraoral scan is taken of the molar with the prepared cavity. The software recognises the tooth and automatically incorporates it into the preoperative scan.

VOXELTEK LIVE

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- Admin

Basic design order

Tasks

Deadline

Delivery times and final calculated price may vary depending on the complexity of the orders placed and other factors. We reserve the right to make changes, but in all cases users will be informed and credits will only be deducted from their account once they have accepted and confirmed the delivered design in all its terms and conditions.

2 days - 0% discount

Description

↔ Paragraph A⁰ A¹ Δ ▾ B I

Check this box if you have a Voxeltek printer

Upload files

Files will be anonymised. (e.g. no personal data will appear in the file name)

File links

Information & Pricing

Our system works flawlessly and can be used with any intraoral scanner or 3D printer, however, to achieve the most optimal results and user experience, if you don't have VOXELTEK products, visit our [website](#) and familiarize yourself with the possibilities, as you can raise your professional competencies to the next level through our bundle offers.

Use this submit form to order CAD design for your case.

- Fill in the form, include description of your case and your requested delivery time.
- Our design team will review the case and will contact you if any clarification is needed.
- Receive your CAD design before the requested deadline.

When you receive the designed files, please verify if they meet your expectations, and if so, click the "Accept results" button so we can proceed accordingly with the additional requirements of your order.

This way, all your orders will be handled correctly.

Thank You!

Pricing: (1 credit = 1 EUR)

Item	2-day delivery	3-day delivery (10% off)	4-day delivery (20% off)
Cemented design (per unit)	8	7.2	6.4
Veneer design (per unit)	7.5	6.75	6
Model design (per model)	6	5.4	4.8
Removable die in model (per unit)	1.2	1.08	0.96
Gum design on model	2.5	2.25	2

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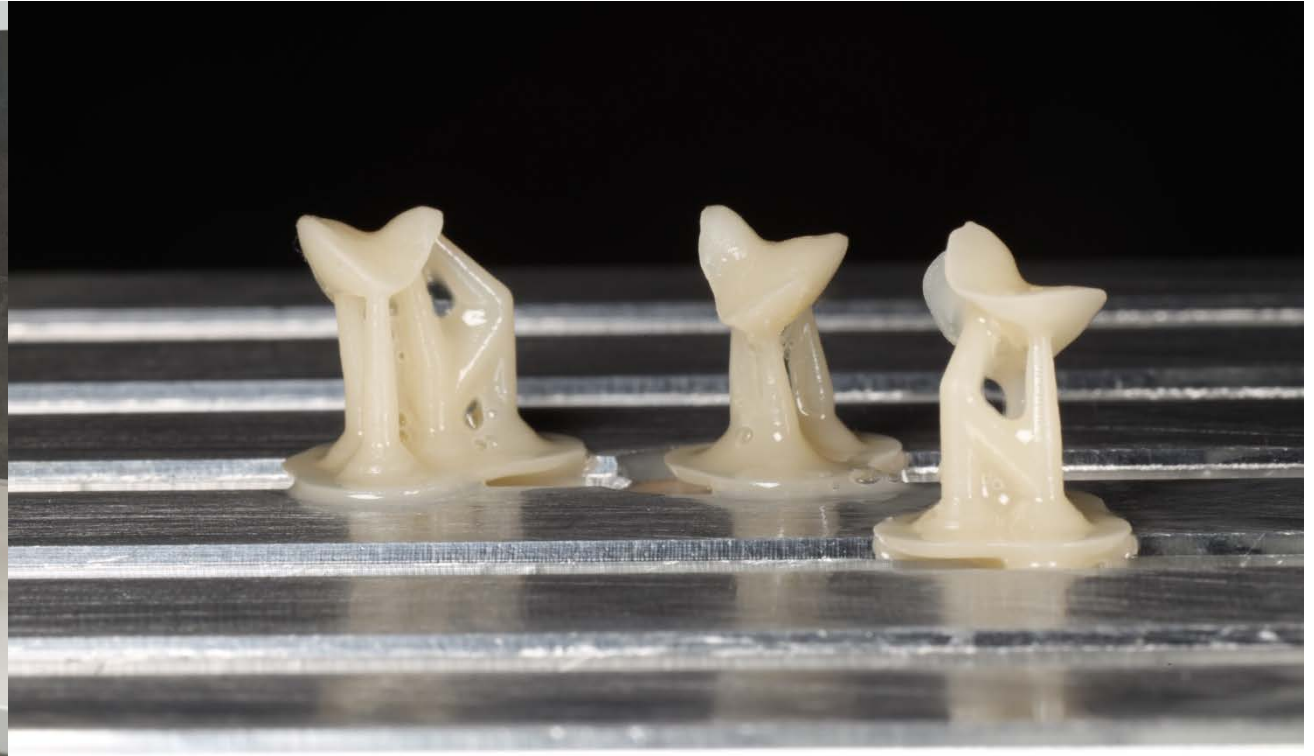
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VOXELTEK

What's new?

9. Submitting CAD design order:

Through the Voxeltek.live online platform, the assistant uploads the intraoral scans and, if necessary, adds comments and special requests to the designer's work. Within 20 minutes the completed designs are sent back to the assistant.



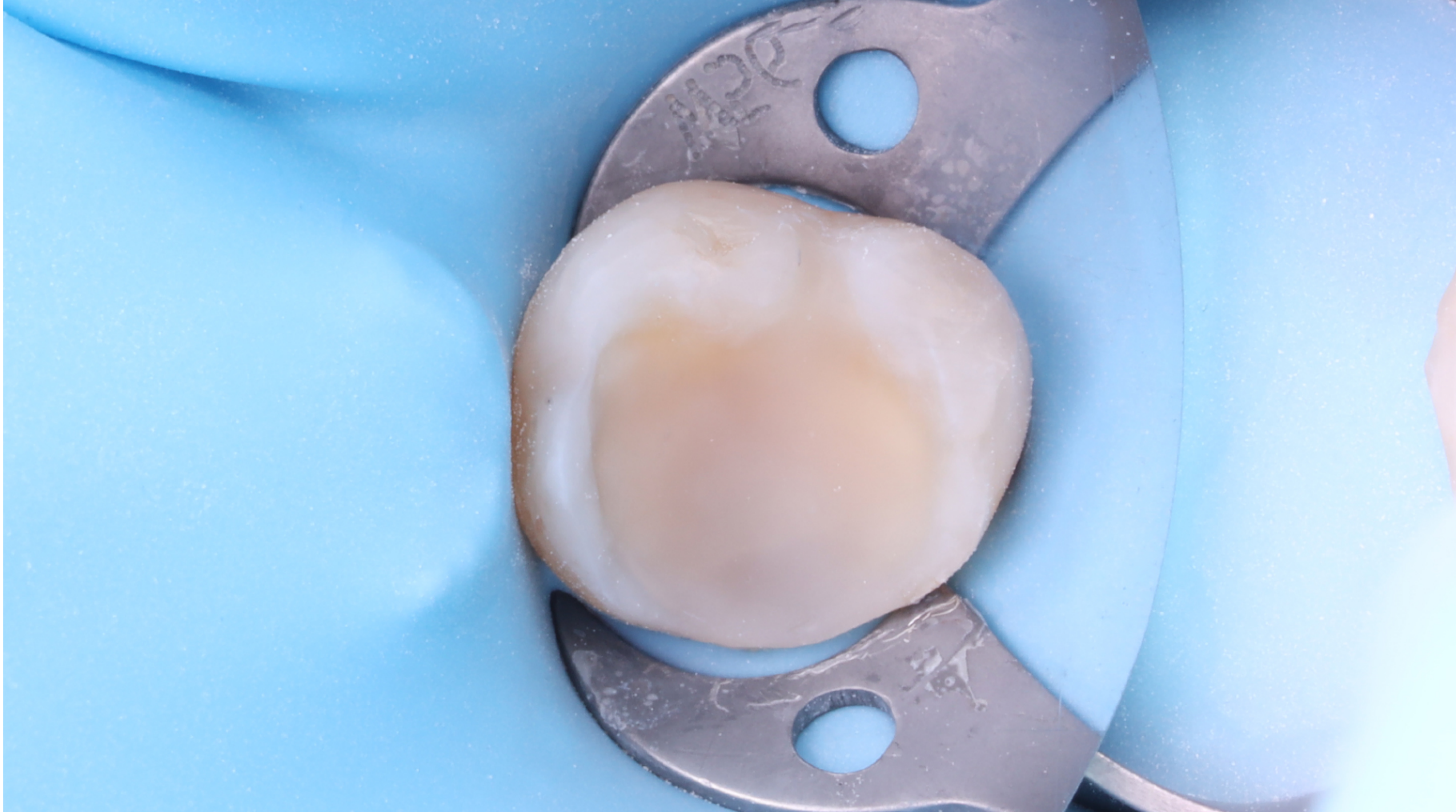
10. 3D printing the approved inlay design:

Once the assistant has received the plans and the dentist has approved them, the print file can be sent to the Voxelték M4 dental 3D printer with the click of a button, and the restoration can be made from Class IIa biocompatible material in 15 minutes.



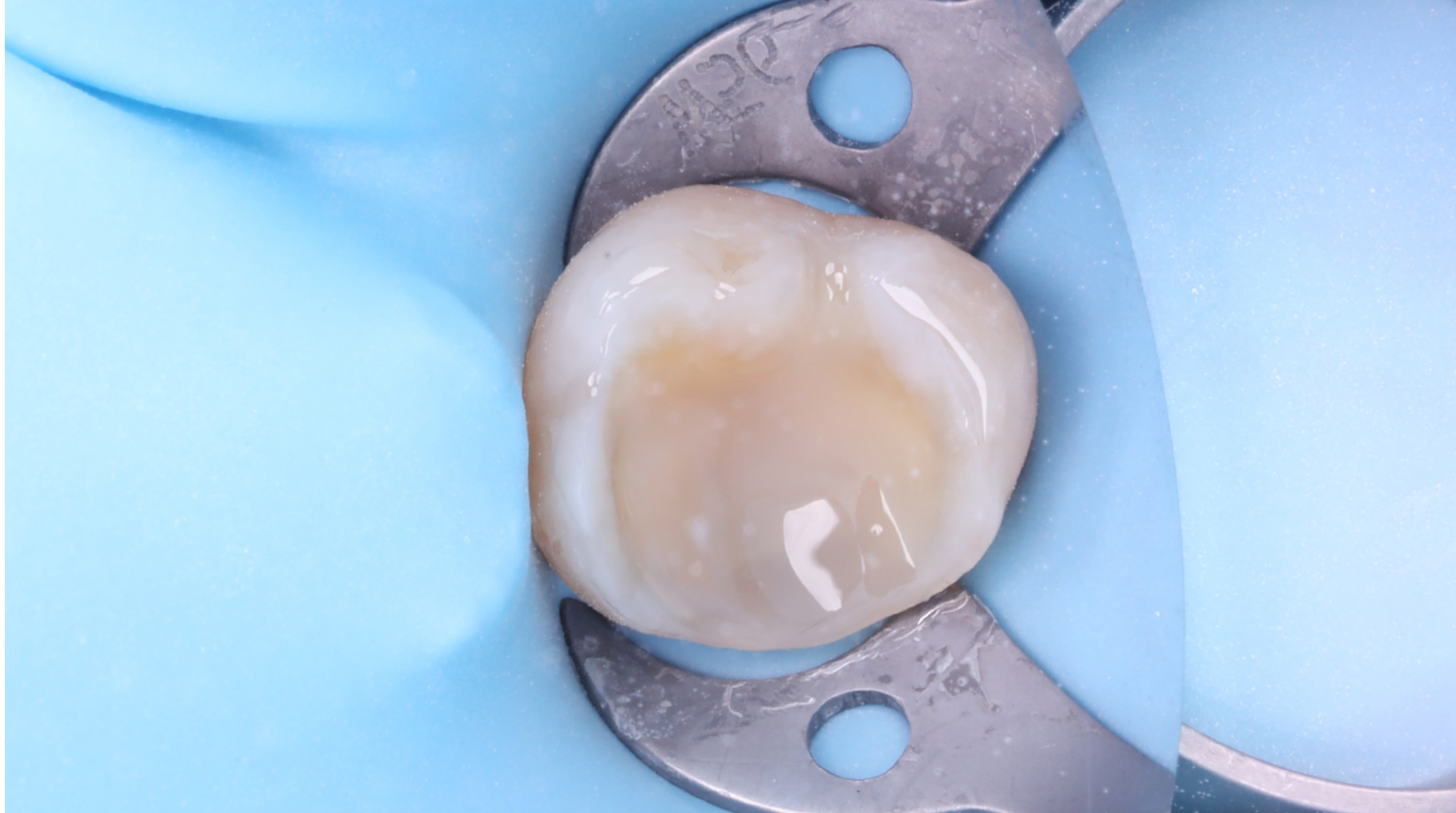
11. Inlay to be cemented:

Saremco CrownTec A2 3D printed permanent composite inlay for the molar.



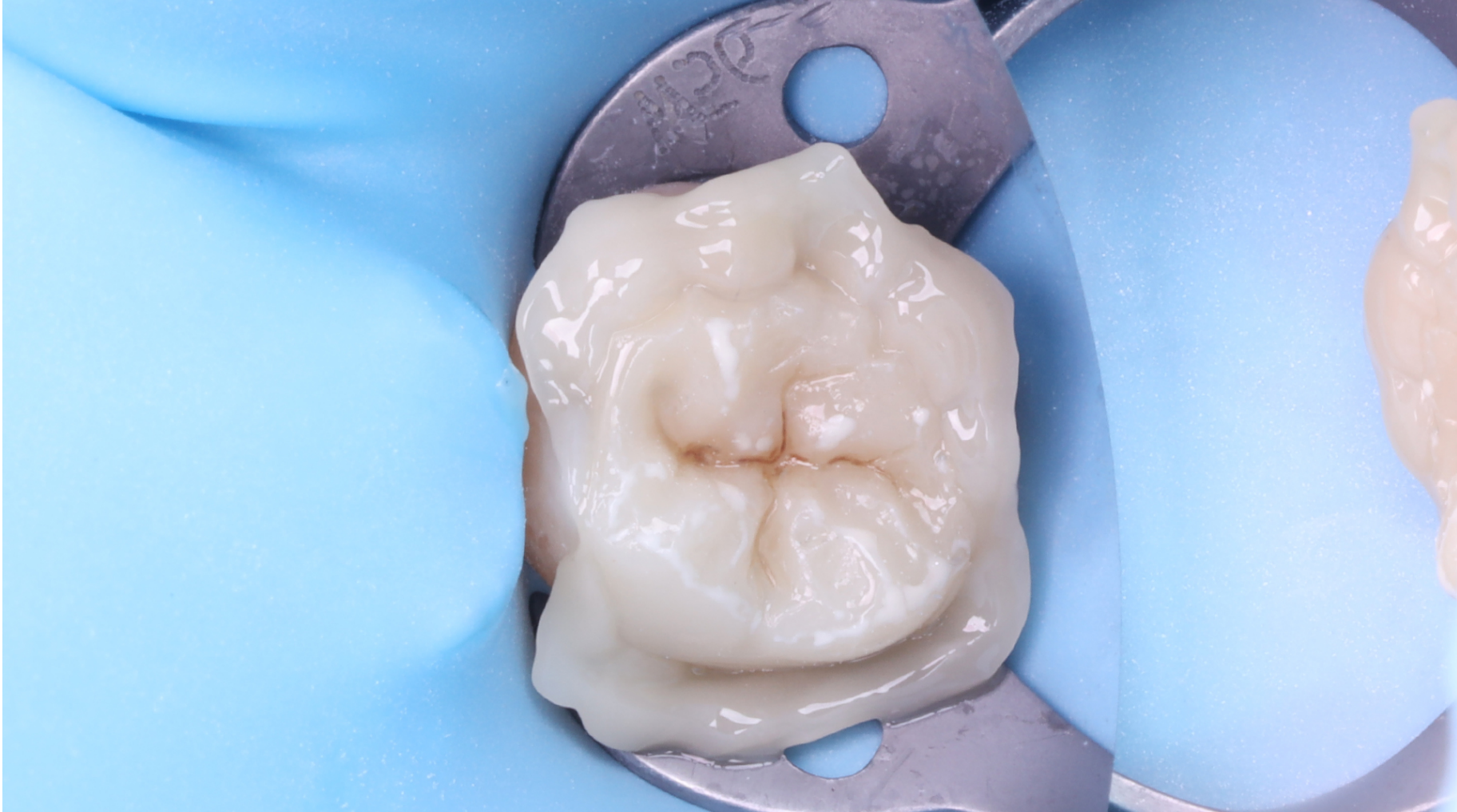
12. Cementation Process:

Activation of IDS surface by sandblasting to promote the best adhesion possible.



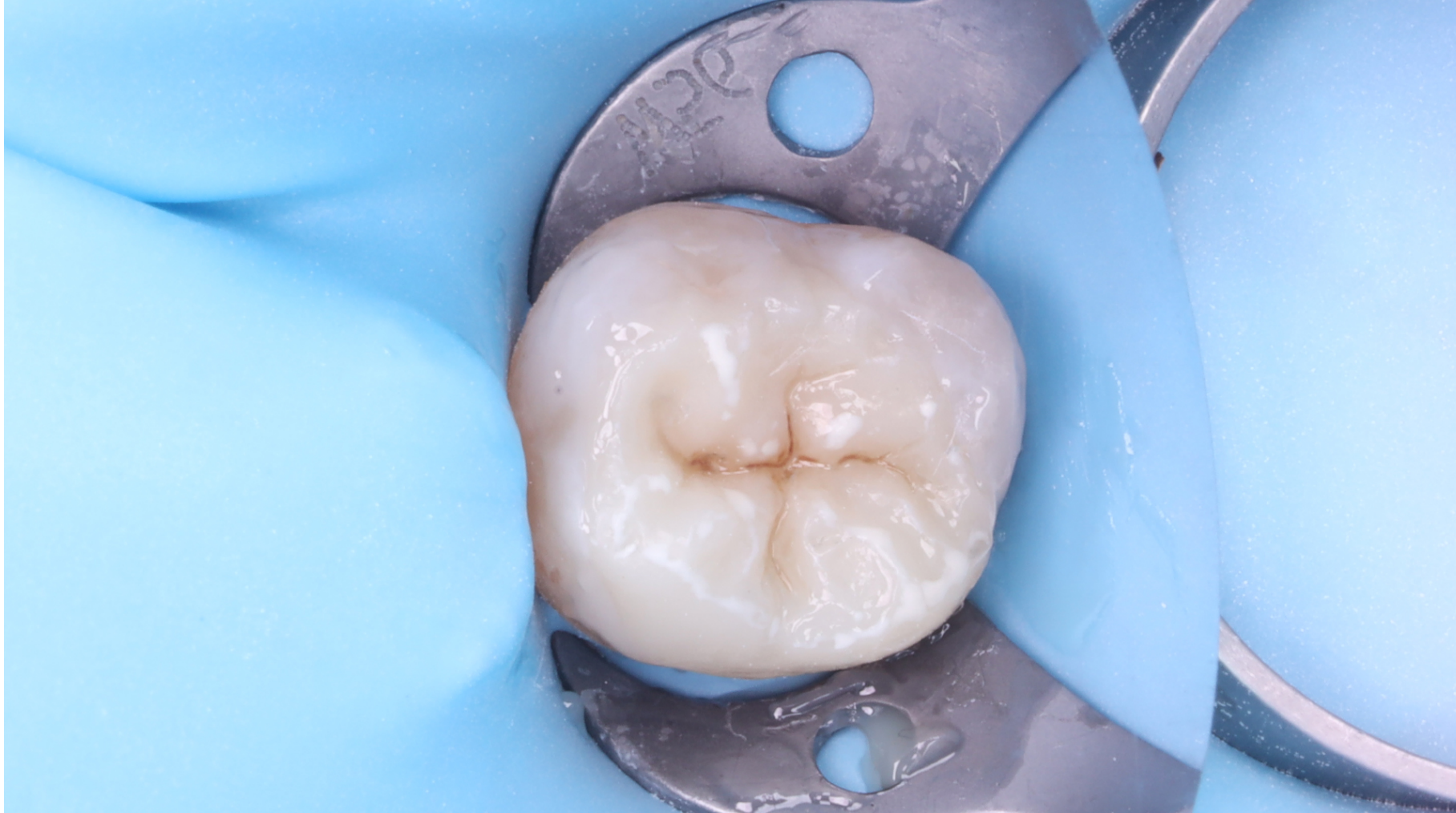
13. Cementation Process:

Adhesive layer (component 2) applied onto the cavity. Both ends of the molecules of component 2 are hydrophobic, creating a strong bond between the primer and the composite applied on the inlay.



14. Cementation Process:

The inlay fixed in place. Heated composite material was used for cementation, note the excess adhesive around the margin line.



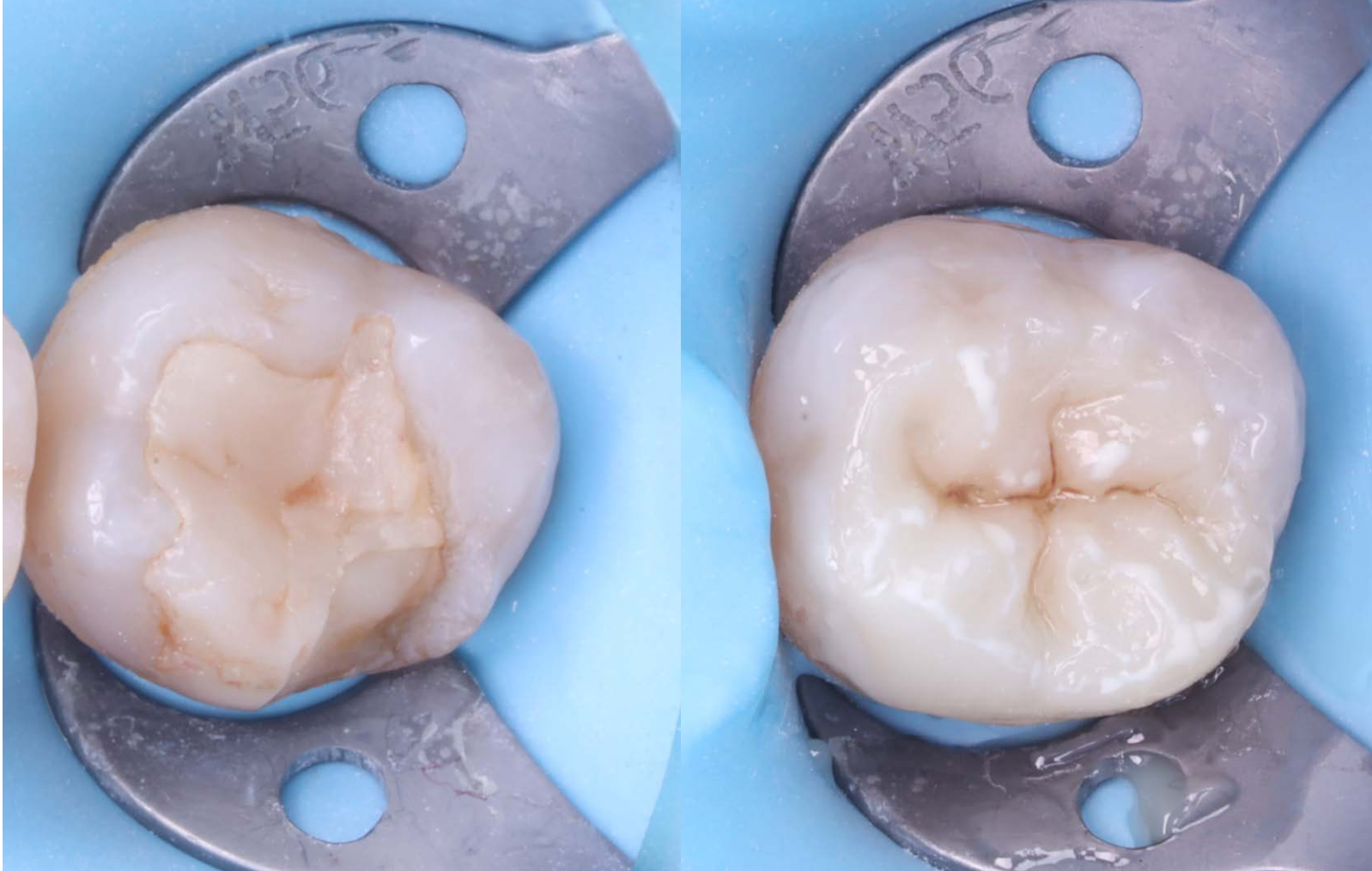
15. Finishing

The Excess adhesive was removed, and the tooth was illuminated from all sides with UV light.



16. Finishing

The end result without the dental dam. The last step was adjusting the occlusion.



17. Before and After Photo:

A comparative photo showing the condition before and after the inlay was cemented.



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