MODERN
Dental Europe

CASE REPORT: FACIAL DRIVEN DENTURE DESIGN WITH

EVO FUSION IMMEDIATE & RAYFace

Dentist: **Dr. Steven Ceysens**

INTRODUCTION

Rayfase-Enhanced EVO FUSION Immediate: A Digital Smile Transformation
Traditional denture methods often overlook the broader context of a patient's smile. For this EVO Fusion Immediate case, enhanced by Rayface technology, we start the smile creation process directly from the face. This synergistic blend considers essential facial elements such as the midline, head size, and tooth characteristics, leveraging the precision of Rayface for superior outcomes. The fully digital approach leads to a higher patient consent rate, going beyond mere tooth replacement to create dentures that seamlessly integrate with individual facial features.

In our featured case study with a 65-year-old woman, this innovative workflow ensures not only a perfect fit within the mouth but also enhances overall facial aesthetics, showcasing the transformative power of a 100% digital workflow augmented by Rayface technology. While challenges with immediate dentures exist, including the need for adjustments, the benefits are significant. Patients can talk, eat, and chew much sooner compared to regular dentures. This immediate digital denture acts as a bandage, promoting rapid healing and enabling patients to quickly resume regular activities.

Some patients are better suited for this kind of digital denture, particularly those cases where the immediate dentures are used as both provisionals and scan dentures for later implant work, in this case All-on-X removable implant bridges in the upper and lower.

With this real-life case, showing innovative approaches with the added dimension of Rayface, we aim to showcase how the collaborative power of technology elevates EVO Fusion Immediate dentures beyond a denture to a personalized and transformative smile solution, thanks to the facial driven design, which can be copied for the design of the final implant bridges in a later stadium of the treatment, setting a new standard in digital dentistry.

In summary, the Rayface-enhanced EVO Fusion Immediate is reshaping the landscape of denture creation with its 100% digital workflow, ensuring accuracy and a perfect fit.

Dentist: Dr. Steven Ceysens

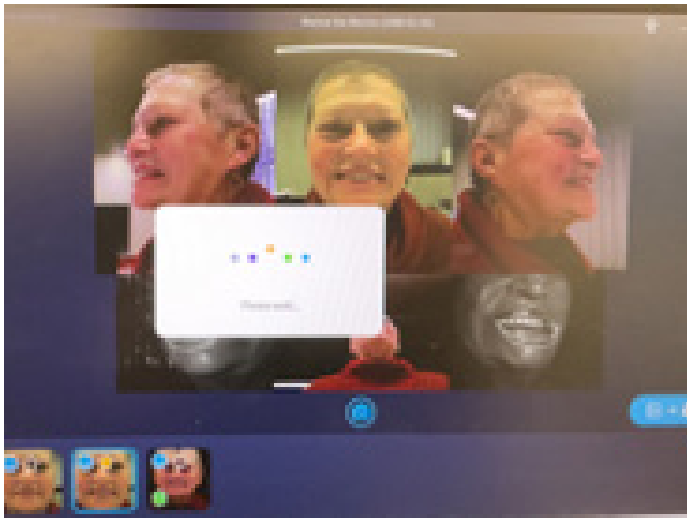
Dr. Ceysens studied dentistry at the Catholic University of Leuven, Belgium and runs his private practice in Tremelo, Belgium.

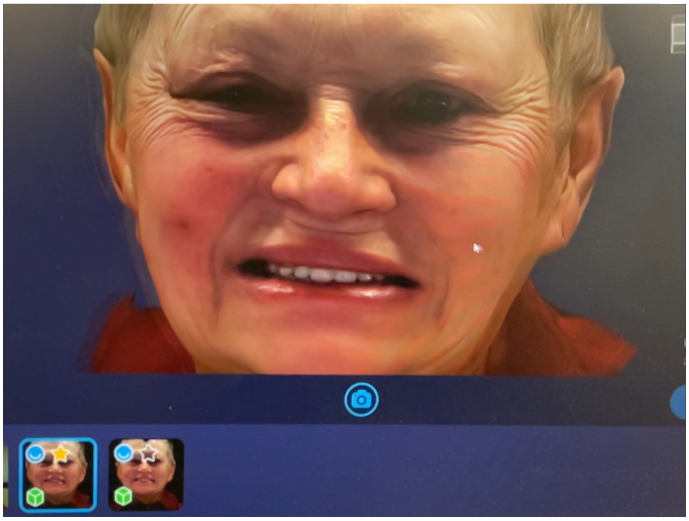
BEFORE

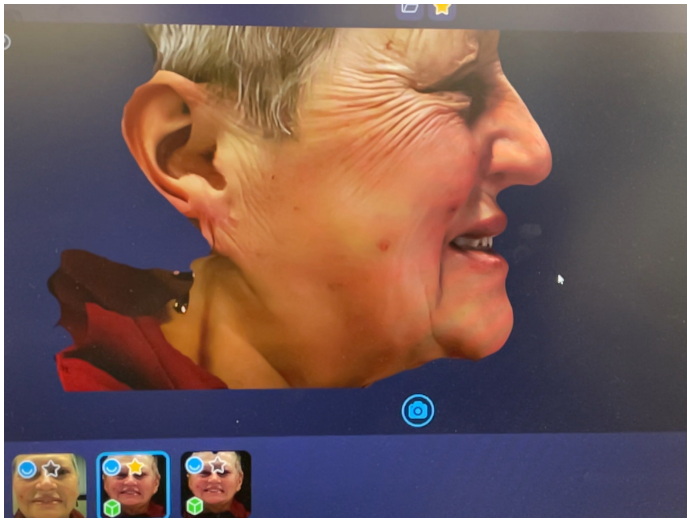
AFTER

TREATMENT PROCESS SUMMARY

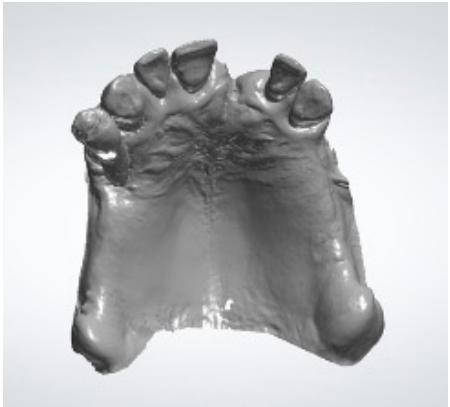
1. RAYFACE SCAN

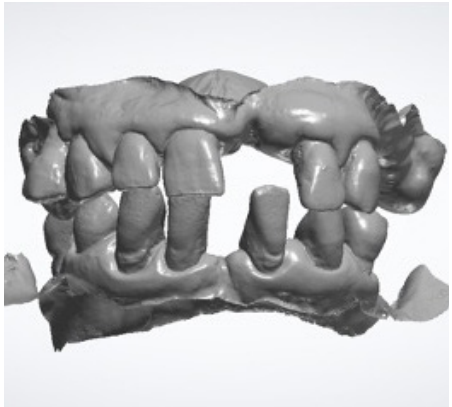






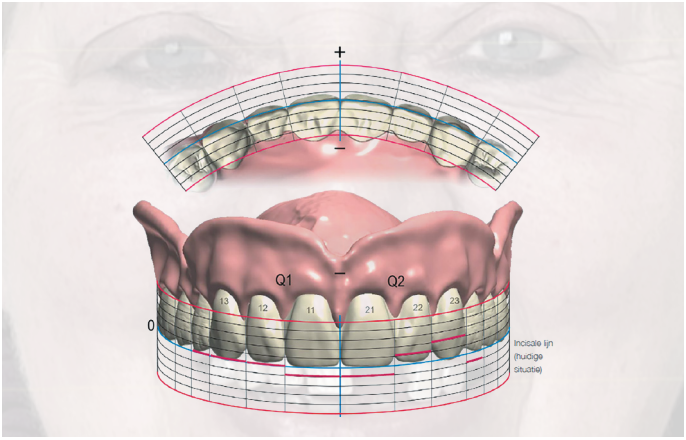
2. INTRA ORAL SCANS UPPER, LOWER AND BITE SCAN





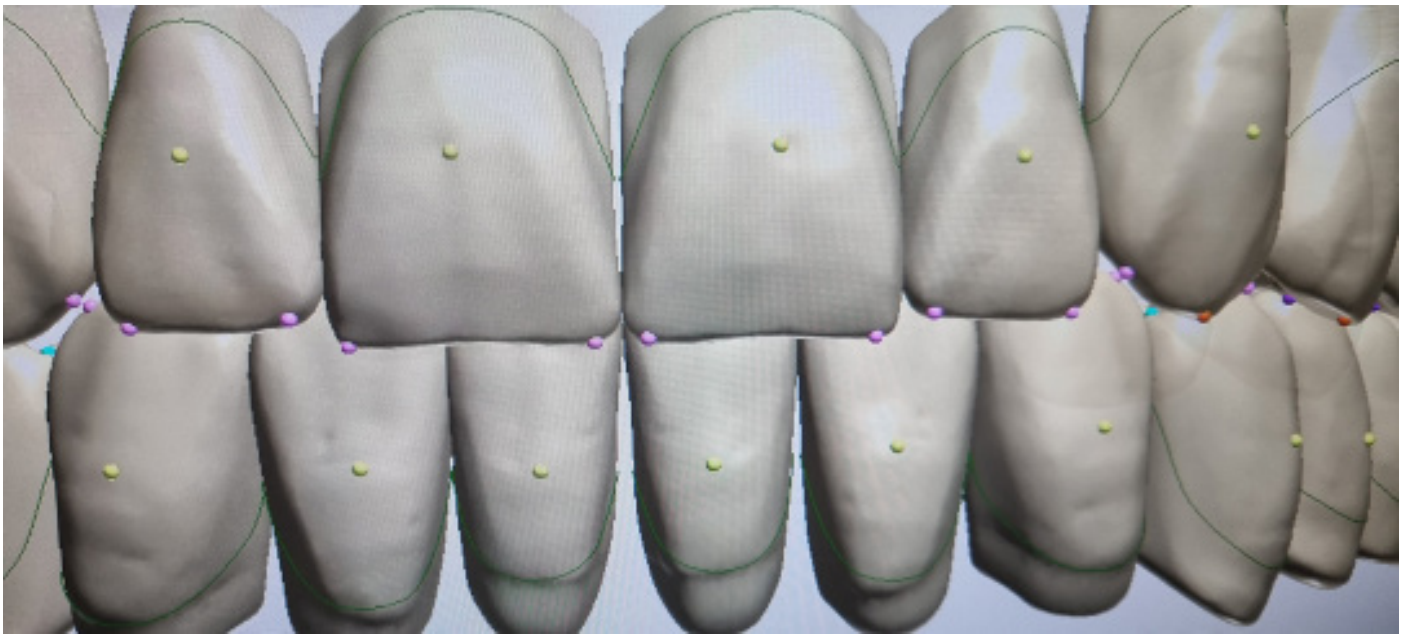
3. TREATMENT PLAN

- Terminal rest dentition
- Immediate upper and lower
- Changes on V-Diagram
- Final restoration: ALL-ON-X upper and lower



4. EVO FUSION IMMEDIATE-DIGITAL DESIGN

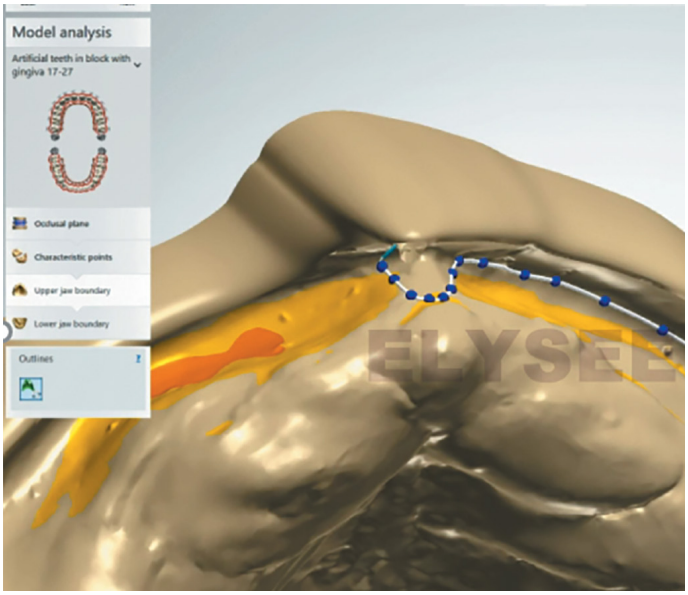
5. MODIFY INDIVIDUAL TOOTH SHAPE: According to features patient

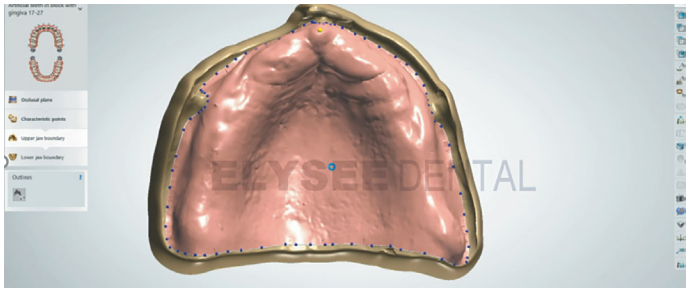


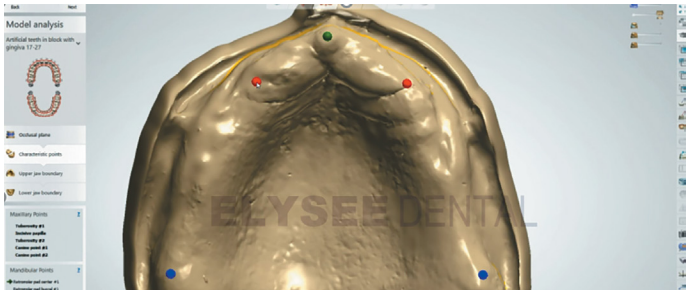
6. FINAL DESIGN EVO FUSION IMMEDIATE

Intuitive design process
The EVO Fusion digital dentures are individually designed and customized. The system features extensive tooth libraries in addition to sample tooth set-ups, morphing tools, various set-up functions and the latest gingiva designs. It is clear that computer-engineered complete dentures made using CAD/CAM with a digital workflow have several advantages over conventional dentures. The digital workflow can reduce clinical and laboratory time. The patient data stored are invaluable during future appointments.

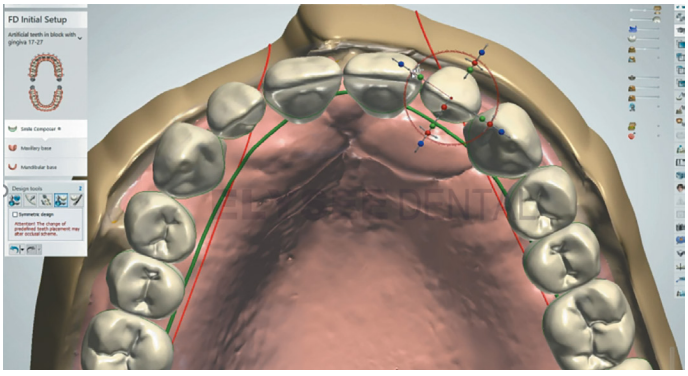
6.1 MODEL PREPARATION, BORDERS AND SURVEYING

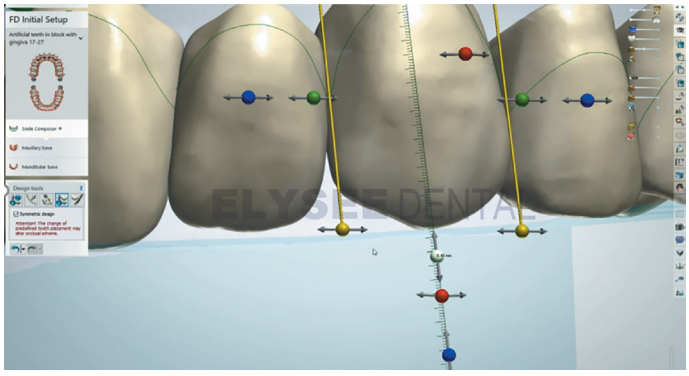




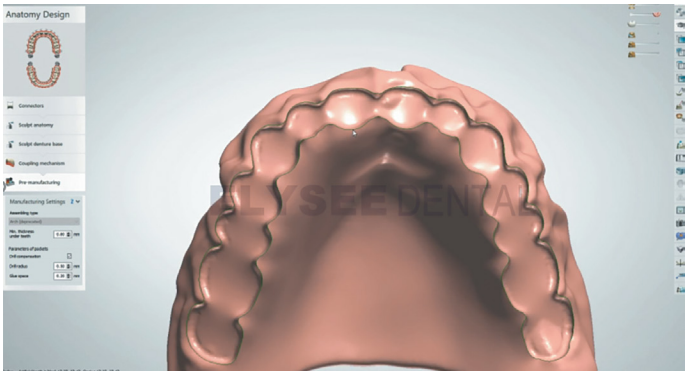


6.2 TOOTH SELECTION AND DIGITAL SET-UP





6.3 CREATING THE VIRTUAL DENTURE

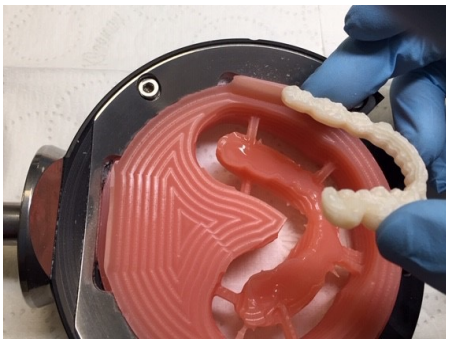


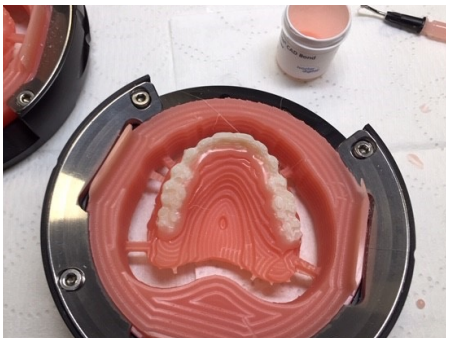
7. MILLING DENTURES

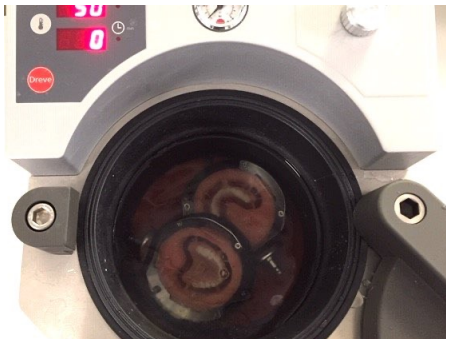
MD3D: MDE'S Milling centre in Germany (largest denture milling centre in Europe)

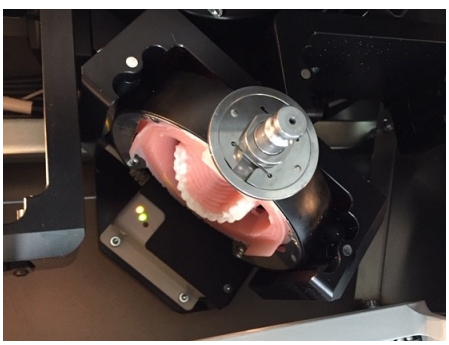
Flexible and esthetic
White and pink discs comprised of high-quality tooth and denture base materials are available for the fabrication of removable dentures using the oversize technique.
This manufacturing process is characterized by exceptional individuality and flexibility: It enables to tackle the most challenging cases.
The materials, the CAD and CAM software and the milling machines all work together smoothly to produce high-precision dentures of the finest quality.

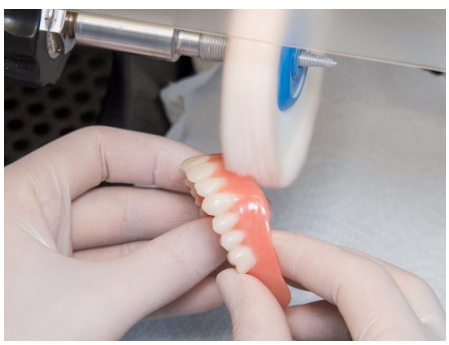
7.1 EVO FUSION Oversized milling - bonding - fine milling strategy - manual finishing & polishing











7.2. FINISHED EVO FUSION IMMEDIATE DENTURES (+ SCANMARKERS)

8. EVO FUSION IMMEDIATE BEFORE AND AFTER EXTRACTION

BEFORE EXTRACTION

AFTER EXTRACTION

9. EVO FUSION IMMEDIATE PLACEMENT - SAME DAY

10. FINAL RESULT AFTER PLACEMENT

Dr. Steven Ceysens:
"The utilization of an IOS has become the prevailing protocol across nearly all indications. In this case, I had the opportunity to combine an IOS with Facescan data as a reference to be able to create an individual facial driven design for the denture and the implant bridges later on. Subsequently, I transmitted the files to the laboratory, allowing them to prepare the design and finish the Fusion Immediate denture before the extraction phase."

"Throughout the entire treatment process, the patient did not experience any inconvenience akin to the challenges of the "conventional era." The result was the creation of a remarkably esthetic and better-fitting new immediate denture. This technique proves to be reliable, predictable, and highly efficient."

Patient:
"I was dissatisfied with my natural dentition as the appearance of the teeth left much to be desired. This led to a reluctance to smile and eating became more of a challenge."

"Employing these contemporary techniques, the dentist and the laboratory performed exceptionally well, completing the entire process in just 2 appointments. My new set of teeth not only looks charming but also fits perfectly. Heartfelt thanks to my dentist and the skilled lab team for their commendable work!"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