## align education

# **Clinical Case Report**

**Dr. Steven Glassman and David Lampert** 

# Implant in the aesthetic zone with the iTero-exocad Connector<sup>™</sup> workflow.



**Dr. Steven Glassman** is a pioneer in the use of iTero<sup>™</sup> intraoral scanners and has made significant contributions to advancing digital workflows. An esteemed graduate of both Brandeis University and Columbia University School of Dental Medicine, he currently practices alongside his wife in the prestigious Lincoln Center area of New York City. Dr. Glassman's areas of specialization include Cosmetic Dentistry, Implant Therapy, and Aligner Treatment. In recognition of his expertise, he was appointed to the faculty of ZimVie in 2018 to develop digital workflows for aligners and implants further.



**David Lampert**, MBA, serves as the Vice President and Business Manager of Town & Country Dental Studios, a leading dental laboratory based in New York, USA. Founded in 1962, the laboratory has seen remarkable growth over the past six decades and currently employs over 80 professionals. It provides services to hundreds of dentists nationwide. Town & Country Dental Studios has been at the forefront of dental technology, being one of the first labs in the United States to adopt zirconia materials and iTero<sup>™</sup> intraoral scanners. Today, the laboratory operates with a fully digital workflow.

## **Case information**

#### **Diagnostics**

#### **Chief Complaint:**

The patient presented with an upper right lateral incisor (#12) exhibiting mobility. Further examination revealed a history of endodontic treatment combined with root fracture.

#### Intraoral Assessment:

Porcelain crowns were present on the upper right lateral (#12) and central incisors (#11). The upper right central incisor displayed a root canal treatment, a periapical lesion, and a root fracture accompanied by discolored and inflamed gingiva. The lateral incisor had a periapical lesion deemed untreatable by the endodontist. The gingival papilla was receding between these teeth, manifesting as a visible black triangle.

Both upper right lateral and central incisors were identified as requiring extraction. After the extraction procedure, the patient was fitted with a provisional removable acrylic

partial denture. The patient opted for implant-based restorations to address the dental defect. However, due to inadequate bone thickness, it was only possible to place an implant in the position of the central incisor (#11). Prior to implant placement, bone augmentation was necessary. After healing, a two-unit bridge would be fabricated to replace the extracted teeth with a lateral incisor as a cantilever.

### My integrated iTero-exocad Connector<sup>™</sup> workflow

Dr. Glassman: for aesthetic cases like this one, I usually request my lab to create a digital wax-up and share it via exocad™ DentalCAD webview. I evaluate the design and let them know my corrections to ensure we get the best result possible.

The new iTero-exocad Connector™ came at the prosthetic stage of the treatment, and it immediately made

my life easier. Instead of multiple communication channels with my dental lab technicians, we now have one platform where you can share everything: scans, pictures, X-rays, etc.

In the past, we encountered challenges, particularly in implant cases, where there was a lack of alignment between the laboratory, the surgeon, and the





Intraoral pictures of the initial condition.

Initial periapical radiograph

general practitioner. Often, these complications arose from an absence of comprehensive facial and prosthetic planning. With the ability to attach images to the iTero<sup>™</sup> Rx form, we can discuss the plan with the lab immediately when they receive it. This allows for a holistic view of the treatment plan, enhancing the likelihood of successful outcomes.

#### **Treatment sequence**

#### **Appointment #1:**

#### Consultation appointment

Upper right lateral incisor exhibited mobility; the post and crown dislodged during the examination. An iTero™ and CBCT scans were taken, and the patient was referred to an oral surgeon for an implant consultation.

#### **Appointment #2:** Tooth extraction and bone grafting appointment

Both lateral and central incisors (#11, #12) were extracted. Bone grafting was performed simultaneously. The patient received a removable provisional denture and was scheduled for a follow-up in 3 months.

#### **Appointment #3:** Implant placement

healing abutment.

appointment A ZimVie T3® Tapered Certain dental implant (4.1 x 10mm) was placed and torgued to 45 Ncm. A scan body was seated and scanned, followed by a custom



iTero scan taken immediately after implant placement.



Clinically made custom abutment

#### **Appointment #4:** Custom healing abutment placement appointment

The existing healing abutment was removed, and a labdesigned custom healing abutment was installed. It allowed us to shape the emergence profile and ensure the best gingival aesthetics.



Lab-designed custom abutment



Abutment seating confirmation

#### Appointment #5: Scanning for the final restoration

The custom healing abutment was removed, and an emergence profile was scanned with the iTero<sup>™</sup> intraoral scanner. A subsequent scan with the scan body in place was conducted. Photos were taken, attached to the iTero<sup>™</sup> Rx form, and sent to the lab.



Emergence profile scan



Scan body scan

Scan Options

ooth Diagram

#### Appointment #6: Insertion of the final restoration

The fixed cantilever bridge was inserted, and seating was verified with a periapical X-ray. Torqued to 20 Ncm. Contacts were checked, and occlusion was adjusted. Final photographs and a scan were taken for the records.





Images were taken at the insertion appointment. Soft tissue healing remains ongoing.







### Laboratory design process

 All case-related records, including scans, photographs, prescription forms, and other files, were automatically imported to exocad<sup>™</sup> DentalCAD software through the iTero-exocad Connector<sup>™</sup>.

Project Dise loss Russ Indication and Materials Compared to page for . Actions Patient 🗣 Multi-die Design E 8/2/200 15 Design pertal fr and Macel Desco 1 Manufacture O encor Copy C Notes -0 ----Marriel i About M. Dota - - exocad = A = C - 4 × C G = G G ^ 0 ⊂ ⊈ U 0 05 15896 Note the Rx form and files attached by the doctor imported to exocad<sup>™</sup> DentalDB.

2 The doctor has taken two scans: A pre-op scan of the emergence profile and a scan body scan. These were aligned to ensure the proper fit.



Matching pre-op scan of the emergence profile and second scan with the scan body installed

**3** Models aligned to the smile image and in-face visualization of the restorative outcome completed.



5 The final result was shared with Dr. Glassman via exocad<sup>™</sup> webview directly to his MyiTero<sup>™</sup> portal, keeping everything in a single secure channel.







## Conclusion

#### The lab's workflow:

The iTero-exocad Connector<sup>™</sup> streamlines the process of working with a dental lab, enhancing efficiency and saving time. The connector eliminates manual steps by directly linking the iTero<sup>™</sup> intraoral scanner with the exocad<sup>™</sup> DentalCAD software, reducing the risk of missing data. Additionally, the feature to attach images and case-related files to the iTero<sup>™</sup> Rx form ensures that the lab receives all the necessary information at once, leading to more effective communication and better patient outcomes. Another advantage is immediate data transmission to the lab, allowing real-time feedback and adjustments while the patient remains in the chair. This eliminates the inconvenience of return visits for additional scans.

#### A dental technician's perspective:

Having all case-related data imported automatically streamlines our workflow and saves time searching e-mails, photos, messengers, and the MyiTero<sup>™</sup> portal to gather all case-related records. The ability to get information and easily communicate with the dentist through the exocad<sup>™</sup> DentalCAD software offers better coordination and improved outcomes. The time we save by not having to communicate as much with dentists for clarifications or by not having to sift through various data sources allows us to focus more on craftsmanship and aesthetic precision. This enhances the quality of the final dental restorations and strengthens the collaboration between technicians and dental practitioners.

The opinions expressed in this clinical report are those of the author and may not reflect those of Align Technology. The author was paid an honorarium by Align Technology in connection with this clinical report.

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