



**BRIAN WILK, DMD**

Dr. Wilk received his dental degree from the University of Pennsylvania School of Dental Medicine and founded Highpoint Dental Medicine in 1992, where he practices general and cosmetic dentistry. He prides himself on providing the highest quality cosmetic and comprehensive dental care available through an excellent dental team and the latest technology. Dr. Wilk has served as a clinical associate and instructor at his alma mater, and has developed several new products for the dental industry—from whitening solutions to instruments. He is a member of the ADA, Pennsylvania Dental Association, and Montgomery/Bucks Dental Association.

**CASE PRESENTATION**

# Clinical Precision with a Streamlined Digital Restorative Workflow

**T**here are many benefits to digital intraoral scanning, but the greatest is that you can really zoom in and see whether you've captured everything. And if you missed something, such as debris on a tooth, you can delete the scan in just that area, rescan that one little spot, and seamlessly reinsert it into the original scan. If you miss an area using impression material, you'd have to take a new impression of the entire arch or quadrant.

In my practice, digital scans are the vehicle that drives the entire restorative process, and this case is a great example. The patient was a 52-year-old man who had a cantilevered restoration that was in need of replacement. It was determined that replacing the cantilevered restoration with a single-tooth implant would be the best long-term option. I prepped tooth No. 12 to the gingival margin and made a cantilevered temporary over that area so the implant could be placed.

About 8 weeks later, I took a digital impression (iTero Element 2 Intraoral Scanner, Align Technology). There's a myth circulating around dentistry that you can't scan anatomy that's subgingival, but with proper gingival retraction, this is something I've been doing successfully for years. By contrast, traditional impression-taking can force impression material below the gingival margin and create a thin film of impression material. This thin film doesn't create the most accurate impression because it can distort easily.

Once I hit the send key on my iTero Element 2 scanner, Align Technology received the case and sent it to Dentsply Sirona, who digitally designed

the custom Atlantis abutment with the proper clearance, angulation, and parallelism to the adjacent prepped tooth. It's important that the abutment is designed in parallel with the prep so that there is no insertion issue with the crown and implant crown. My lab, Broadway Dental in Feasterville, PA, approved the design the next day.

The round-headed implant scan body (Dentsply Sirona) was converted to a replica of the abutment in the milled model right next to the adjacent natural prepared tooth No. 12. Before receiving a physical model, my dental lab was able to use the digital file to design the crown and implant crown on the digital model. So, within 3 days, the implant abutment was milled and shipped to my lab along with the model from Align.

The implant (Astra Tech Implant System EV, Dentsply Sirona) has a unique interface that provides one-position-only placement, which eliminates any difficulty when inserting the implant abutment and crown. The final crown was placed 2 weeks after the final impression was captured. Because of the digital scan, I had perfect impressions, perfect preps, and the case wrapped up beautifully when I inserted the final restoration.

Clinical precision is only one advantage of using the intraoral scanner. Treatment acceptance is another—it's amazing how patients can self-diagnose once they see their problems on the screen. Sometimes, I'll show patients a scan and they'll ask, "Why aren't you doing this other crown?" It's tough to hit a patient with a \$3,000 dental bill, so I might tell them that since it's not

horrible, we can take care of it down the road. To my surprise, once they see the scan, the patient will often say, "Let's do them both."

Intraoral scanning with a system like

the iTero Element 2 scanner doesn't just create revenue through case acceptance. It's important to note that every time you scan, you save money. In the long run, you'll get a better-fitting

restoration with fewer remakes, fewer problems, and a "wow" factor that leaves patients with the feeling that dentistry is actually a science instead of someone just drilling on their teeth.



Figure 1—Preop radiograph

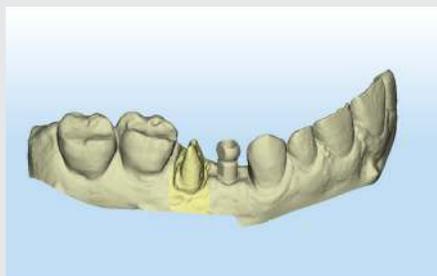


Figure 2—Digital impression (iTero Element 2 Intraoral Scanner, Align Technology) of natural tooth and scan body simultaneously



Figure 3—Occlusal view of impression showing natural tooth and scan body



Figure 4—Milled model showing tooth prep No. 12 and implant abutment analog No. 13



Figure 5—Occlusal view of final restoration



Figure 6—Buccal view of final restoration

## GO-TO PRODUCT USED IN THIS CASE

### ITERO ELEMENT 2

The iTero Element 2 intraoral scanner is equipped with next-generation computing power that enables reduced scan processing and faster start-up time, allowing a full-arch scan to be performed in as little as 60 seconds. The iTero Element 2 provides improved screen resolution while minimizing scanner footprint due to its slim 21.5" monitor and 16:9 widescreen viewing format. The enhanced color offers a more thorough look at patients' oral health. Designed with a center-mounted wand cradle, the system provides ideal ergonomics during scanning. The integrated lithium-ion battery provides easy mobility from operator to operator without the need to plug in for power or reboot. The improved wand touchpad is as intuitive as gesturing on a smartphone and can be used to switch between scanning segments or rotate the model on screen.



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