



**CYRUS
TAHMASEBI, DDS**

Dr. Tahmasebi received his dental degree from the University of Southern California in 1991, and started practicing dentistry in La Jolla, CA, that same year. He has served on the Board of Directors of the ADA, San Diego Dental Association, and the Board of the Orange County Dental Academy. He is a Fellow of the College of Dentistry as well as the International Academy of Esthetic Dentistry. Dr. Tahmasebi is the Senior Manager of FirstFit Clinical Education.



**ROSS W. NASH,
DDS**

Dr. Nash is one of only 46 Accredited Fellows worldwide in the American Academy of Cosmetic Dentistry. Dr. Nash graduated from North Carolina State University as a textile engineer and later earned his dental degree from the University of North Carolina at Chapel Hill. He has served as an adjunct faculty member in post-graduate training for several dental schools.

CASE PRESENTATION

Same-Day Dentistry Using **Digitally Guided Preparation Technology**

With today's technology, it is now possible to digitally plan, preview, and use a guided system to ensure the best treatment plan is implemented with the most minimally invasive technique. Although treatment can depend on factors such as esthetics, tooth location, and patient finances, recent developments in restorative dentistry now call for the fabrication of prostheses with both esthetic and functional requirements while preserving healthy tooth structure. All of this is now possible with the FirstFit guided prosthetics delivery system.

Process Overview

During the diagnosis appointment, indications and contraindications are reviewed, and a radiograph is taken to expose any adverse periodontal or endodontic conditions. The clinician then submits a full upper and lower arch polyvinyl siloxane impression or a full-mouth scan as well as a prescription form. The models are poured up and scanned, or the scan is used to digitize the process. The FirstFit authorized provider designs the preparation of the teeth for the restoration that the clinician recommended, and the design is submitted to the clinician for approval.

After the clinician approves the prep design and the design of the final restoration (Figure 1), the FirstFit system creates a set of 3D-printed guides that tie directly to a 5-axis milled restoration for an exact-fitting final restoration. The digital guides and a specific new bur, as well as the final restoration and a master model are then sent to the clinician. This bur will provide the precise finish line, shoulder, and

axial wall angulations. The clinician can now prep the model using the guides and test the fit of the final restoration before it goes into the patient's mouth (Figure 2).

In a matter of minutes, the dentist can prepare the teeth using the FirstFit guided prosthetics delivery system. The FirstFit customized high-speed handpiece has been specifically developed with a disk that engages the guides and directs the preps precisely. It is designed to engage grooves on the guide and ensure that it fits over the existing teeth without any patient discomfort (Figures 3 and 4). The FirstFit bridge is fabricated using zirconia for strength as well as a design that creates maximum retention while directing the mastication forces down the axis of the teeth (Figure 5).

There are many advantages to using the FirstFit guided prosthetics delivery system, such as preventing the tongue from interfering with the prep, the patient from closing down on the handpiece, or the assistant's mirror from obstructing the view. This will then prevent iatrogenic issues of overpreparation, indistinct margins, or improper prep design (Figure 6 to 8). By having the guides to prepare teeth and deliver a final restoration (Figure 9) at the same time, we remove the need for temporaries.

Conclusion

By using the FirstFit guided prosthetics delivery system, the entire process becomes more efficient and predictable for the dental team as well as for the patient. All of this happens without the need for a major investment on the part of the dentist, who can now say goodbye to temporaries.

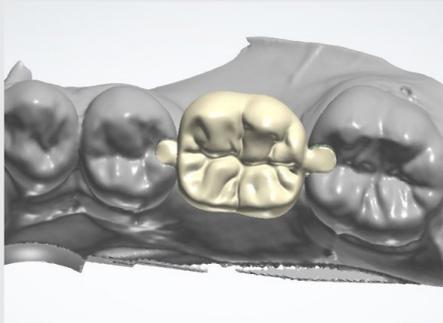


Figure 1—The design of the final restoration



Figure 2—Place the printed prep guide on the model



Figure 3—Insert the FirstFit handpiece in the prep guide



Figure 4—Using the FirstFit handpiece produces minimally invasive preps



Figure 5—Fitting the bridge on the model



Figure 6—Bridge guide in patient's mouth provides exact guidelines to reduce overprepping



Figure 7—The restoration tried in ensuring there is no lateral or protrusive movement interferences



Figure 8—The bridge delivered using cementation protocol



Figure 9—Seating the final restoration

GO-TO PRODUCTS USED IN THIS CASE

FIRSTFIT

FirstFit is a revolutionary system that utilizes innovative digital technology and a series of 3D-printed prep guides to enable clinicians to prepare and seat a crown, bridge, or veneers in a single visit. Each 3D-printed prep guide is custom-designed and enables minimal tooth reduction during treatment, resulting in a highly esthetic, precisely fitting restoration. FirstFit represents a minimally invasive, temporary-free solution for patients who don't have time for multiple office visits and can minimize chair time.



FIRSTFIT
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