Porcelain veneer makeovers have evolved during the years. The initial treatments were a color-masking-space-closing alternative to composite bonding. Improvements in porcelain technology during the last 10 years have allowed applications to improve occlusion because of better strength properties. Because of increased patient demands for immediate aesthetic results as well as functional testing of the new contours, the use of provisionals has evolved from placing direct composite temporaries to dispensing Bis-acryl materials from automatic mixing syringes.

**Product Description**

Zenith™/DMG recently introduced an enhanced version of their popular Luxatemp® Automix Plus. According to the manufacturer, this new material has the exact same properties as Automix Plus except for the addition of fluoride and fluorescence. The new provisional material is called Luxatemp® Fluorescence and offers the most natural appearance of provisionals in all lighting conditions.

**Case Example**

**Patient Description**

A 31-year-old woman (Figure 1) desired a smile enhancement because her two front teeth were worn. She also wanted brighter teeth and a nonorthodontic alternative to straighten her teeth (Figure 2). Esthetic evaluation revealed irregular gingival heights that were attributed to rotations as well as incisal wear/extrusions (Figure 3). Furthermore, a thick labial frenum kept teeth Nos. 8 and 9 from contacting interproximally and destabilized the gingival margins (Figure 4). A deep vertical overbite along with occlusal prematurities created frenitus of the upper teeth as well as muscle tenderness that was inflamed by the patient's parafunctional habits, which included lemon sucking. After relaxing her muscles with a maxillary orthotic, a three-dimensional wax-up was created on a Stratos® articulator (Ivoclar Vivadent®, Inc) (Figure 5). A treatment plan was created to improve her occlusion, uncrowd the teeth, and repair the worn edges while creating a uniform, bright smile.

Porcelain veneers were selected as the best option to conservatively enhance this patient's smile and preserve anterior occlusal elements optimized after equilibration.

**Treatment**

Gingival architecture is critical to balance and symmetry in a new smile. Using a fine tip marker, changes were outlined for a minor gum lift (Figure 6). An atraumatic soft tissue recontouring was done with a Waterlase™ (BIOLASE® Technology, Inc) laser at 1.5 Watts, 30% water, and 30% air (Figure 7). The new gingival height and scallop followed the outline. No bleeding was created.
to allow for impression taking. Teeth Nos. 4 through 13 were prepared according to the wax "blueprint" and impression bites were acquired. Note that after provisionalization, a closed flap adjustment of the osseous crest maintained physiologic width for long-term health and esthetics. Lastly, the Waterlase® allowed for ablation of the heavy frenal tissue.

The laboratory technician created a thick putty stent of Sil-Tech® (Ivoclar Vivadent®, Inc) (Figure 8). This made a stable, mirrored reproduction of the wax-up details. It was checked in the mouth for accuracy and to practice the path of insertion with the patient.

After lubricating the teeth with petroleum jelly, Luxatemp® Fluorescence was carefully placed into the stent (Figure 9). A bottom-up technique was used with even dispensing of the material to avoid entrapment of bubbles in the provisional, which would compromise strength and esthetics.

The putty matrix was carefully placed in the mouth making sure that it was seated completely on the rest stops established by the molars and hard palate. It was firmly held in place (Figure 10). Any excess material was flicked off with a cotton tip. The matrix was removed after 1 minute, which pulled the temporaries off the teeth for extraoral modification. Any leftover debris was easily removed with a hand scaler and suction to avoid any false occlusal markings in final adjustment.

Luxatemp®’s hardness properties improve over time. Because of the length of the provisional, it was left in the hard matrix for 3 minutes (Figure 11). During that time any heavy excess was judiciously removed from the edges (Figure 12). The provisional was carefully lifted from the matrix with a large spoon excavator.

The incisal edges were placed in the soft silicone gel to create a registration of this critical anatomy. Any bubbles were repaired with LuxaFlow™ (Zenith™/DMG) and a curing light. Furthermore, better visualization allows for clean, smooth margins for better home care and healing postoperatively.

Slow-speed garnet and diamond discs helped trim and smooth the margins. The incisal edges were placed very judiciously in the altered area. The Luxatemp® structure was thinly painted on the exterior surfaces of the provisional and cured thoroughly.

Creating a natural look was very important. Therefore, translucency was created using a “cut back” technique.

Any bubbles were repaired with LuxaFlow™ (Zenith™/DMG) and a curing light. Furthermore, vertical centric was shaped with a H3179 carbide bur (AXIS™ Dental Corporation). Lingual and occlusal anatomy was shaped with a H135 TDF carbide bur (AXIS™ Dental Corporation). Centric marks and excursions were meticulously fine tuned because of the patient’s deep overbite. Furthermore, incisal edge positions were carefully perfected to promote a comfortable envelope of function and phonetics. Vertical centric was verified, with the patient sitting up, using the T-Scan II™ analyzer (Tekscan, Inc).

Creating a natural look was very important. Therefore, translucency was created using a “cut back” technique. A pad of clear Flowable Composite (Renamel®, Cosmedent®, Inc) was placed on the intaglio using the Smartmix® dispenser. A surface glaze and sealant (LuxaGlaze®, Zenith™/DMG) was thinly painted on the exterior surfaces of the provisional and cured thoroughly with light (Figure 16). The extra attention in this step helped promote better patient comfort and hygiene compliance.

The interlocking nature, intimate fit, and strength of LuxaTemp® Fluorescence created more than adequate retention on the teeth. To help seal and adhere the transitional to the teeth, TempoCem® NE (Zenith™/DMG) was carved as well to add more realism (Figure 15). Composite resin was painted in the altered area. Clear occlusal flowable composite (Renamel®, Cosmedent®, Inc) was placed very judiciously in the matrix for the altered teeth. The Luxatemp® structure was reinserted into the matrix. A curing light hardened the new colors into the provisional for a minute. All anatomy was preserved but now realistic in color. Any minor flash is easily trimmed.

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easily “painted” into the intaglio using the Smartmix™ (Zenith™/DMG) dispenser (Figure 17). This allowed for a smooth procedure and complete placement of the provisional structure. The cement was easily cleared from the margins.

Bright natural color and reflective contours of the smile gave the patient’s face a new glow of health and beauty (Figures 18 through 21). Better proportions made her smile more pleasing to the eye. Occlusal engineering and gingival sculpting improved the health and longevity of these enhancements. Using these materials and techniques, the patient was able to test drive her esthetics and function to customize her new look and manage her expectations.

**Conclusion**

Patient expectations are continually rising in appearance-related dentistry. Previewing a new smile before the laboratory makes the porcelain ensures that all involved parties are protected financially and medico-legally while avoiding the hazards of remakes. Allowing a patient to wear provisionals promotes fewer interruptions in his/her lifestyle and professional activities. Therefore treatment acceptance increases, and patients can enjoy their improved esthetics sooner. Lastly, a well-crafted set of transitionals can be a great source of positive public relations for a practice and a conduit of referrals. Luxatemp® Fluorescence provides greater realism and added fluoride. Improvements in Bis-acryl technology have allowed good to become great—something we can all smile about.