

tooth length. The Bident Bipolar Electrosurgery Unit provides both cutting and coagulation of tissue and has proven to be an effective tool in gingival recontouring.

In preparation for the gumlift, a periodontal probe was used to verify that sufficient gingiva could be removed without violating the biological width (Figure 9). Anesthesia was supplemented with injections of 1:100,000 epinephrine injections into the affected area to provide hemostasis during contouring. The Bident straight wire tip (tip No. 3303) was used under constant water flow to excise inflamed tissue between No. 9 and No. 10 and to create esthetic, symmetrical gingival contours (Figure 10). With the Bident, tissue shrinkage is eliminated through less heat and current spread, greatly increasing post-operative comfort and patient healing. The resulting gumlift leaves healthy, symmetrical gingival sites that are ready for clean impression taking.

Once optimal gingival contours were achieved, preparation of the teeth continued. Incisal reduction was achieved using the coarse football diamond (Figure 11) to create a butt joint. The preparations were smoothed using the superfine tapered diamond (836V-1) (Figure 12). Adequate reduction was verified using the thin transparent Preparation Guide, made from the image-inspired wax-up. By checking all surfaces with the periodontal probe through the appropriate holes in the seated preparation splint (Figure 13), you can substantially enhance your success with porcelain restorations of adequate thickness and resistance. Finally, all sharp line angles were smoothed using the Shofu snap-on

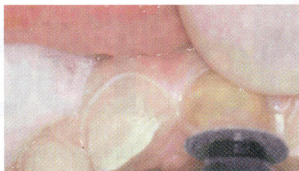


Figure 14

discs (Figure 14), further increasing resistance and strength. When the preparations were complete, an Impregum Soft polyether impression was taken (Figure 15).

Temporization

The next step, creating a "trial smile," is a crucial step in guaranteeing patient satisfaction with the *continued on page 54*



Figure 15

entire outcome, and building confidence and faith in your restorative abilities as well as building referrals. With a "trial smile," the patient can leave in temporaries that meet their esthetic desires. The end of the preparation appointment then becomes a time for you to reward the patient for enduring a long appointment of shots and drills, and even a substantial financial commitment, with a smile that already looks better than the one he or she walked in with. It is also a way to ensure happiness with the final case, as you verify the choice of smile design in his or her mouth before proceeding. Remember: beautiful temporaries build confidence, patient satisfaction, and referrals!

The hard/soft matrix created from the image-inspired wax-up of the cosmetic simulation can help make the temporization step esthetic and easy, creating provisionals that look just like the imaged picture in just a few minutes. By using the digital imaging and this temporary technique and materials, you can achieve better results and increased patient satisfaction. Direct patient feedback, combined with your expertise and knowledge of the latest in technique and materials, provides superior esthetics, phonetics, and function, further paving your pathway to success.

The hard/soft matrix was seated over the prepared teeth to verify fit. Hemaseal & Cide (Advantage Dental

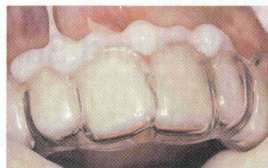


Figure 16

Products) desensitizing agent was then used to coat the prepared teeth. After filling the matrix with Pro Temp Garant III autocure bis-acryl temporary crown and bridge material in shade B1, the matrix was seated over the teeth with firm pressure until the resin completely set (Figure 16). The outer hard matrix was first removed, then the inner soft matrix was peeled off to reveal a smooth, polished resin surface with minimal excess resin. The double layer of soft and hard construction allows for superb adaptation of the matrix. This results in temporaries with correct tooth contours, fine margins, and nearly ideal occlusion that require very little trimming and polishing (Figure 17). The minor adjustments can be made with fine polishing diamonds and discs.

The most important step of the temporization process is follow-up. This is the time to evaluate the contours, incisal edge position, color, and verify the patients' choice of smile design in their mouths using their temporaries. Therefore, for every cosmetic case, I see the patient for a follow-up appointment and complimentary cleaning and discuss any comments on shape and length. If any adjustments are needed, they are made with polishing discs. It is far better to catch and make any changes at this point than to have to redo a case. A quick alginate impression poured up in stone can be forwarded to the laboratory for any changes in the final porcelain restorations. Having verified shape and length, occlusion, and phonetics with your temporaries, the next step is to deliver the dazzling smile she desires!

Laboratory phase

All preoperative models were mounted using a facebow transfer on a KaVo articulator. The custom incisal guide table was fabricated, and models were mounted using centric bite records. A proper mounting is essential to verifying sound occlusion and function, and to providing optimal esthetic considerations.

The final restorations of the four maxillary anteriors were fabricated according to the patient-approved "trial smile." Feldspathic porcelain was stacked, A1 + Bright Value



Figure 17

Dentin shade at the gingival half blending to a B1 + Bright Value Dentin at the incisal half. Proper selection of dental porcelains allows fabrication of esthetic restorations that have superior translucency, exhibit realistic light transmission, and maintain biocompatibility. After the veneers were baked and the function, contour, and surface texture were refined, they were glazed, etched, and internally silanated.

Bonding porcelain

At the seating appointment, the temporaries were sectioned and removed using a composite removal hand instrument. Expasyl (Kerr) was expressed into the gingival margin to control bleeding and protect the gingiva from trauma (Figure 18), while all traces of



Figure 18

residual resin were removed using gentle air abrasion (Rondo Flex, KaVo). Prior to etching, matrix bands were placed distal to No. 7 and No. 10 to allow for easy clean-up (Figure 19).



Figure 19

Because the final shade of the restorations can be further altered with the luting cement, RelyX Veneer try-in pastes (3M/ESPE) were tried in the veneers. After taking into consideration that the patient was a young, vibrant girl with medium complexion who could afford to have fairly white teeth, and since the upper front teeth could be slightly lighter than the posterior and lower teeth and still look natural, RelyX B-1 was chosen for the slightly darker No. 8, and A-1 for Nos. 7, 9, and 10. The preparations were etched with 34