

Prep The Model for Peace of Mind By Martin B Goldstein DMD

During the course of a recent hygiene visit, an old friend and current patient inquired if his smile could be improved. I had gazed upon his smile for some 15 years and had never once given it a second thought. Avoiding the temptation to dismiss his inquiry, I took a closer look and sure enough, a challenging veneer case stared right back at me. Lou exhibited significant anterior spacing accompanied by flaring of the lateral incisors. In addition, post-periodontal surgical tissue profiles were evident, that also included several exposed root surfaces. Most noticeable was the diastema between 7 and 8, resulting from a combination of periodontal attachment loss and a tongue thrust habit. Indeed, there was work to be done if my friend was inclined to pursue it. Somewhat cautiously, I agreed to work up the case and explore the possibilities. Certainly, every one of us has had the occasion to per-



Preoperative views of the patient

form dentistry on a close friend or family member. Apart from the routine treatment that we don't give a second thought to, there remains the more challenging treatment; endodontics, surgery and, as in this case, challenging cosmetics. Having to perform such treatment on people we are close to can result in considerable anxiety.

SMILE-VISION to the RESCUE

One of the best ways that I know of to reduce such apprehension is to map out the case as thoroughly as possible. It's important that we determine where we are going before ever picking up a hand piece. This is especially true when we choose to perform "instant orthodontics". My protocol includes a well-composed digital portrait followed by a simulation of what my patient and I perceive as the desired result. For this I most often rely upon SMILE VISION imaging and laboratory services. They provide me with a professional looking simulation based upon my specific instructions. This is only the first step. Once my patient and I are satisfied with the imaging, study models and a bite are taken and



Cosmetic imaging

sent to SMILE VISION for a 3D replica of the desired result based upon the patient-approved imaging. I well recall the first time I laid eyes upon a typical Smile Vision mockup. The highly polished composite restorative preview, set upon carefully trimmed and soaped models resulted in me showing them to just about anyone who would lend a spare moment; truly impressive.



3-D replica

Accompanying the mockup are two other aids designed to streamline case preparation and temporization. The first, a reduction template, is a vacu-formed splint based upon the mockup (Preparation guide). It features multiple small portals throughout its entirety, intended to receive a periodontal probe. When placed upon one's prepared teeth, this guide enables the practitioner to determine whether or not he has adequately prepared the dentition for the restoration at hand.



Preparation guide

The second aid is a "hard-soft" vacu-formed splint (Temporary template) actually consists of two splints, one housed inside the other. The inner shell is a pliable, highly detailed replica of the mockup, while the outer shell is a rigid template whose purpose is to allow absolute seating and stabilization of the softer template, thus minimizing inaccuracies and bulky flash. The "shell in shell" configuration allows for easy separation of the pliable matrix once the composite temporization material has set. The hard shell is popped off leaving the soft shell only to be teased off.



Temporary template



Hard shell removed



Temporary restorations

Despite these ingenious guides, aimed at providing a predictable case result, I couldn't help but remain anxious when contemplating Lou's prep day. Was the case really "do-able"? Could the gorgeous Smile Vision mockup be reproduced in the final product? I decided to go for a dry run to see if this would help to ease my concerns. After duplicating the upper and lower pre-op models I found some down time to go through the motions of preparing all of the teeth on the models with high speed diamonds as if actually doing the case. This was accomplished over a sink with a light water spray to minimize the mess. In little more than forty five minutes time I had produced 8 preps, (5-12), separating contacts where deemed necessary and enjoying the insights of hand-articulating the upper and lower models to evaluate occlusal clearance. All the while I employed the Smile Vision prep guides to check for proper reduction.



Model prepared

It had become apparent that "yes", this case was a "go" and in fact I had quickly become aware of potential problem areas where adequate inter-occlusal space was critical. A weight seemed to lift from my shoulders. In my mind, the case had already been done. It was now just a matter of going through the motions with the patient in the chair.

For the anxiety producing cases like this one, the opportunity to experience the preparation process before going



into battle might spare you considerable worry both before and during prep day. What's more, it's likely that your chair time will be reduced owing to your "beforehand" knowledge of the preparation requirements. As can be seen, Lou's Empress restoration pleased both patient and doctor.

About the author:

Dr. Goldstein is a 1977 graduate of the University of Connecticut School of Dental Medicine and practices general dentistry in a group setting in Wolcott, Conn. He enjoys promoting the cosmetic side of his practice and has found it helpful to incorporate high tech methodology into his daily routine to accomplish this. Dr. Goldstein serves on the staff of Contributing Editors at Dentistry Today. He also contributes to Parkell Today, DentalTown and Dentistry, the UK's version of Dentistry Today.



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← *Completed case*