

New approaches for patient acceptance and appreciation

By Lorin Berland and Sarah Kong

This 51-year-old executive has lived with the effects of tetracycline-stained teeth since she was a little girl (Fig. 1a). All her life she wanted to have a great smile, but she never knew what her dental options were. The general dentist she had seen for many years told her there wasn't anything he could do to help her, so he referred her to our office.

When the patient came for her first visit, she had a number of dental concerns she wanted to address. In addition to the severe tetracycline staining, she felt her teeth were worn from years of grinding. She also had old resin bonding on her lower front teeth that was not only discolored, it was mismatched from years of patching and re-patching every time something would break off.

After listening to her chief complaints and performing a thorough exam and cleaning, we recommended she try deep bleaching and, after evaluating the results of whitening, a minimum of four minimal prep Microveneers™ for her lower front teeth and her upper seven teeth, and a zirconium porcelain crown for tooth No. 5 to achieve the smile she was seeking.

Because her maxillary six anteriors had worn, flat incisal edges, it was essential that we knew what the patient hoped for in terms of shape and length. We went over the Smile Style Guide (www.digident.com) to select a smile design (Fig. 2). With the patient's input, we determined that P3 — pointed canines with square centrals and round laterals — would look the best for her (Fig. 3).

The length combination she liked the most was L-2, laterals slightly shorter than the centrals and canines (Fig. 4). We submitted her pre-op photo to SmilePix for a cosmetic image (Fig. 5) and concluded with PVS impressions (Splash, Discus Dental) and a bite registration (Vanilla Bite, Discus Dental).

At her second consultation appointment, we confirmed the smile design and length combination she had previously selected by showing her a diagnostic wax-up of her upper and lower teeth (Fig. 6). Matrices were fabricated from the wax-ups before this appointment and were used to make an upper and lower Slip-On



Fig. 1a: Pre-op full face.

Smile right on the patient's teeth.

We loaded the matrices with an A-1 bisacryl temporary material — such as Temphase (Kerr), Integrity (DENTSPLY Caulk) or PERFECTemp II (Discus Dental) — and seated them in the mouth. After the material was set, the matrix was removed and what remained on her teeth was a new smile.

We took a series of photographs with the Slip-On Smiles in place and the patient was ecstatic. She was able to see and feel what her teeth could look like before committing to any dental work (Fig. 7). The patient was truly amazed by this and wanted to wear the smile home to show her husband.

Though the patient had loved the selected smile design and cosmetic image, she was not quite sure about pursuing this treatment. This is why the Slip-On Smile was such an important part of her treatment presentation. She accepted the treatment as soon as she could experience her new smile firsthand.

We began her treatment with a combination of in-office and take-home whitening. The incisals of the canines and bicuspid, the part that shows, had acceptable results.

We used this as a base shade, planning to make the lower veneers even lighter toward the front and the upper veneers slightly lighter than the lowers. As planned, teeth Nos.

6–12 were prepared for Microveneers to preserve as much natural, healthy tooth structure as possible.

Tooth No. 5 had an existing crown that the patient wanted to replace to match No. 12, so it was prepared for a zirconium crown at the same time. Digital photographs of the prep shades were taken for our ceramic artist (Fig. 8).

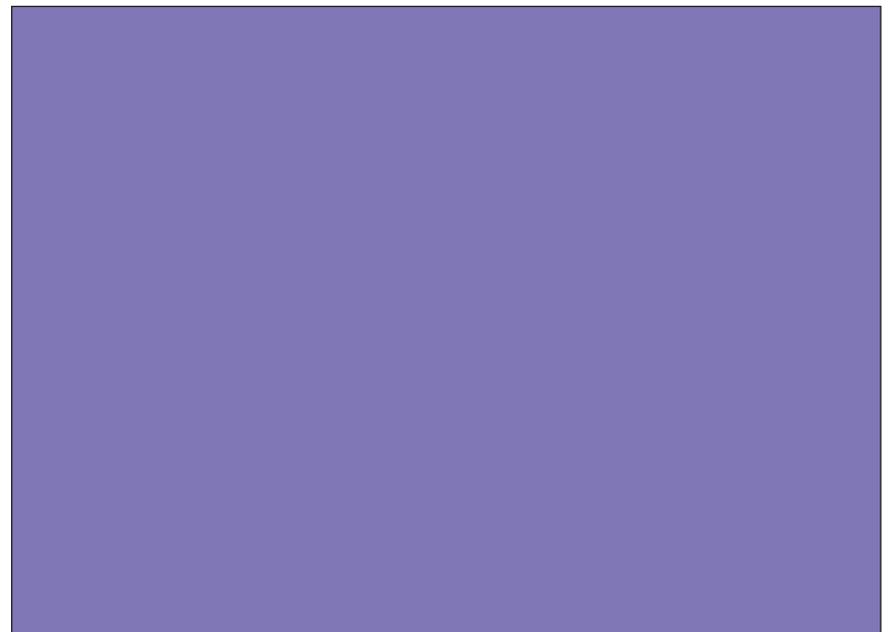
Once the preps were finished and refined, it was time to provisionalize the teeth. While an assistant loaded a tray with alginate, hydrocolloid (Dux Dental) was expressed over the pre-

pared teeth for an impression. Then the alginate-filled tray was seated in the mouth, directly onto the hydrocolloid. After a mere minute and a half, the impression was removed with a snap and handed off to an assistant to pour.

In the lab, the impression was disinfected and dried. Next, Mach-2 PVS (Parkell) was dispensed into the impression to pour up the model on a vibrator. A fast-setting bite registration material (SuperDent, Darby

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AD



AACD unveils plans for its 2010 meeting



The AACD will meet April 27 through May 1 next year at the Gaylord Texan in Grapevine, Texas.

By Fred Michmershuizen, Online Editor

The 26th Annual American Academy of Cosmetic Dentistry (AACD) Scientific Session will take place in Grapevine, Texas, April 27 through May 1, 2010. According to the AACD, the 2010 educational program offers more learning platforms than ever before, in-depth lectures and hands-on workshops, a mix of innovative presenters and topics, and social functions that foster legendary AACD camaraderie.

Other highlights of the meeting will include deeper learning during

lectures and hands-on workshops, the debut of AACD Digital World, a bigger team program, the exploration of international laboratory models and more.

More than 80 educators will present at the 26th Annual AACD Scientific Session. (A complete list of those scheduled to speak is available at www.dental-tribune.com/articles/content/scope/news/region/usa/id/730 and at www.aacd.org.)

The AACD is the world's largest non-profit membership organization dedicated to advancing excellence in comprehensive oral care that

combines art and science to optimally improve dental health, esthetics and function.

Composed of more than 7,000 cosmetic dental professionals in 70 countries around the globe, the AACD, based in Madison, Wis., fulfills its mission by offering superior educational opportunities, promoting and supporting a respected accreditation credential, serving as a user-friendly and inviting forum for the creative exchange of knowledge and ideas, and providing accurate and useful information to the public and the profession. **CT**

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Fig. 2: Smile Style Guide.

Dental) was then placed directly onto the Mach-2 for a model base.

In less than two minutes, an accurate, instant silicone model was ready on which to fabricate a provisional — all of which was completed by an assistant and outside the patient's mouth.

Using the matrices made from the diagnostic wax-up and approved by the patient in her Slip-On Smile, the provisionals were fabricated.

First, the instant silicone model was lubricated with a water-based lubricant such as KY Jelly. Next, the putty matrix was filled with bisacryl and then placed onto the silicone model. After a minute and a half, the



Fig. 3: P-3, pointed canines with square centrals and round laterals.

provisional was set up and ready to be trimmed.

Because this method of temporization involves a quick way to make a model of the prepped teeth, the provisional can be trimmed and polished in the lab. Finishing provisionals in this manner is much more accurate, kinder and easier for the patient, and especially for the gingiva and the prepped and impressed teeth (Figs. 9a, b, 10a-c).

To prepare the gingiva for the final impressions, Expasyl (Kerr) was placed around the gumline. Final impressions with a PVS material, such as Take 1 Advanced (Kerr), or Virtual (Ivoclar Vivadent), were then taken in custom trays. A slow-setting

material was used to record her bite registration (SuperDent).

To cement the provisionals, the same bisacryl was placed in the temporaries and seated in the mouth. The excess was removed with a micro-brush before the material set up. The patient loved the way her provisionals looked and fit (Fig. 11). There were no surprises as she had chosen the smile design she liked best before any work was ever even started.

When she returned for the final porcelain restorations, the patient was concerned that they might not look as good as her provisionals. Because the minimal preparation was all in enamel, we could try the restorations with no anesthetic and no discomfort. This is important to the patient to really get a "feel" for the teeth, especially when we are increasing length.

We assured her that we would try them in and get her approval before they were seated permanently. Thus, we invited her whole family to the seat appointment to offer their opinions. As is often the case, it was especially important to please one family member in particular, and this time it was her daughter.

For the try-in, we used different shade combinations of try-in pastes

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Fig. 4: Length code L-2, laterals slightly shorter than centrals and cuspids.



Fig. 7: Slip-On Smile full face.



Fig. 5: Cosmetic image.



Fig. 6: Diagnostic wax-up and putty matrices.



Fig. 8: Upper preps and prep shade.



Fig. 9a: Indirect provisionals on instant silicone models.



Fig. 9b: Indirect provisionals on instant silicone models.



Fig. 10a



Fig. 10b



Fig. 10c

Figs. 10a-c (above, left and below): Upper and lower indirect provisionals on instant silicone models.

to see what looked the most natural. I call this the "Mix to Match Method."

This method is especially important when doing large cases with multiple types of restorations and porcelains.

In this case, feldspathic porcelain was used to fabricate the veneers while the crown was made with a zirconium core.

When it comes to mixing cements, we generally like to use the lightest shade for centrals and warmer shades as we go distally. This Mix to Match method helps to achieve a natural-looking smile.

We ultimately decided, with the patient's input, to use a dual-cure resin cement such as Maxcem (Kerr), Multilink (Ivoclar Vivadent) or PermaCem Automix Dual (Foremost) for the zirconium crown on No. 5; Cosmedent Ludicrous for Nos. 8, 9, 24, 25; Bright for Nos. 6, 7, 10, 11, 12; and Yellow-Red Universal for Nos. 23 and 26.

A fresh bottle of bonding agent, such as Optibond Solo Plus (Kerr), Excite (Ivoclar Vivadent) or Adper Single Bond Plus (3M ESPE), was selected. Using a fresh bottle ensured that the bond would be at its strongest potential.

The teeth were cured from all angles with the FLASHlite Magna (Discus Dental). Because it is a LED, there is little danger of over-heating the teeth.

Once the restorations were seated, the patient was ecstatic with the results. She simply could not believe how natural her teeth looked.

They were exactly the way she had anticipated in shape and shade, only better (Fig. 12). The once tetracycline-stained smile was the only smile she had ever known.

Now, for the first time in her life, she could look in the mirror and smile with confidence knowing she had a beautiful, natural smile.

In this case, a cosmetic image was helpful in showing the patient a 2-D photo of how her smile could look.

Yet, it was not until she saw her personalized smile design in real life with the Slip-On Smile that she could really feel and sense what that new smile would truly be like.

She was pleased with every step of her smile transformation, with her provisionals and ultimately with her final results. Though the Mix to Match Method is an extra step that requires more chair-time, the end results justify the means.

And for this patient, that meant a beautiful new smile with minimal tooth reduction to achieve the most natural esthetics.

Each step of this process gained more of the patient's acceptance of the proposed treatment, but it was the extra steps that ultimately gained the patient's appreciation of the final results. **CT**



Fig. 11: Provisional full face.



Fig. 12: Final full face.

About the authors



Dr. Lorin Berland, a fellow of the AACD, pioneered the Dental Spa concept in his multi-doctor practice in the Dallas Arts District. His unique approach to dentistry has been featured on television ("20/20") and in national publications and major dental journals, including Time magazine. In 2008, he was honored by the AACD for his contributions to the art and science of cosmetic dentistry. For more information on The Lorin Library Smile Style Guide, www.denturewearers.com and Biomimetic Same Day Inlay/Onlay 8 AGD Credits CD-ROM, call (214) 999-0110 or visit www.berlanddentalarts.com.



Dr. Sarah Kong graduated from Baylor College of Dentistry, where she served as a professor in restorative dentistry. She focuses on preventive and restorative dentistry, transitionals, anaesthesia and periodontal care. She is an active member of numerous professional organizations, including the American Dental Association, the Academy of General Dentistry, the American Academy of Cosmetic Dentistry, the Texas Dental Association and the Dallas County Dental Society.