WINTER 2023

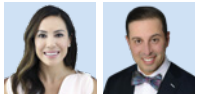
CLINICAL LIFE™

FEATURE

A Conservative Approach to Restoring the Worn Anterior Dentition

CASE REPORT

Smile Enhancement in the Era of Minimal Tooth Reduction



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IN THIS ISSUE

Winter 2023

Many people underestimate their own potential. One of my mentors shared this with me early on in my career, and some 25 years later, it resonates with me more than ever. It was brought to my attention again recently in a post by @AdamMGrant where he said, confidence is often a result of growth, not a cause. Believing in your ability today is less important than believing in your ability to improve tomorrow.

This Winter issue of Clinical Life features brilliant clinical composite restorative dentistry by Dr. Newton Fahl and Dr. Dimple Desai. Striving for continuous growth, both clinicians are always looking for the next technique tip, product advancement, or collaboration with their peers and industry partners to advance their skills and the care they provide to their patients. One might state that Dr. Fahl is at the peak of his career, and Dr. Desai is just hitting her stride; however, working closely with them over the past few months, I can assure you they both genuinely believe that everyone has the ability to improve their tomorrow. We echo their comments and hope these clinical articles help dentists perceive the value of minimally invasive dentistry with the combined use of great materials and techniques that are continually improving.

This Winter issue is once again filled with educational content featuring a CE Spotlight on the imP.R.E.S. program, created and delivered by Dr. Amanda Seay and Dr. Adamo Notarantonio. Offering 5 courses throughout the year, their highly acclaimed, sell-out programs are exclusively directed toward cosmetic and restorative dentistry. We have also continued our 5on5 product spotlight featuring 5 products that 5 leading educators can't practice without.

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We wish you continued growth, improvement, and wonderful success in 2023.

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A Conservative Approach to Restoring the Worn Anterior Dentition

Newton Fahl
DDS, MS

Dr. Newton Fahl, Jr. received his DDS degree from Londrina State University, Brazil, in 1987. In 1989 he received the Certificate in Operative Dentistry and Master of Science degree from the University of Iowa, USA. Dr. Fahl is an Adjunct Professor of Operative Dentistry at the University of North Carolina. He is a member of the American Academy of Esthetic Dentistry, founding member and past president of the Brazilian Society of Aesthetic Dentistry, and past-president of the Society for Color and Appearance in Dentistry. He has published extensively on direct and indirect bonding techniques and is on the editorial board of several peer-reviewed journals. He maintains a private practice emphasizing esthetic dentistry and is executive director of the Fahl Center in Curitiba, Brazil where he conducts hands-on courses on direct and indirect adhesive restorations.

Long-term restorative treatment of the worn dentition can be a complex endeavour and possibly extend beyond the scope and experience of the general dentist. Additionally, restoration of this compromised dentition may require other health disciplines' involvement to address any psycho-social factors that may limit the long-term success of the restorative treatment. Therefore, before treating the worn dentition, there is a requirement of due diligence in thoroughly investigating its etiology and overall effect on occlusal function and tooth structure through a rigorous clinical examination, medical and social history, and careful assessment of mounted study models.

Traditionally, the treatment plan is developed using the information from these articulated models in addition to the clinical findings. However, the need for a restorative wax-up and a means of transferring that information to the operatory setting may be replaced by an intraoral mock-up by adding composite to the worn anterior teeth. Once the desired tooth form and occlusion are achieved, a lingual matrix is quickly fabricated chairside to transfer this information into the final restoration. This composite mock-up will also serve as a shade selection for the various composite layers, providing the optimal location and thickness of the incisal edges, establishing lingual contours incisal embrasures, and point angles of the new restorations. This restorative guide, constructed in real-time using the patient's envelope of function, will significantly reduce placement and finishing time while providing a more predictable, long-term restorative result.

A 28-year-old male presented with a worn maxillary anterior dentition from canine to canine. (FIG 1)

FIG. 1

28-year-old male presented with moderate maxillary anterior wear consistent with anterior bruxism. Canine guidance was also lost as a consequence.

He freely admitted to a stressful lifestyle and was diagnosed with bruxism limited to the anterior teeth only. There was no clinical wear observed on the posterior teeth. Unfortunately, this young man was a habitual fingernail biter. The treatment plan proposed was to conservatively restore the four maxillary incisors and canines to

"This restorative guide, constructed in real-time using the patient's envelope of function, will significantly reduce placement and finishing time while providing a more predictable, long-term restorative result."

their natural length and contour, thus re-establishing the protective canine-guided occlusion. In addition to recommending assistance with his stressful lifestyle, the patient had to firmly acknowledge that the long-term success of the restoration of his anterior tooth wear was contingent on the complete cessation of his fingernail-biting habit.

The treatment plan called for a single restorative appointment. The intraoral composite mock-up was accomplished using Evanesce A2D and Evanesce FX non-VITA shade ENI (Clinician's Choice). (FIG 2)

FIG. 2

Intraoral mock-up of maxillary incisors and maxillary and mandibular canines. Using the patient's actual envelope of motion was beneficial in creating the optimal incisal edge thickness and location, lingual contours and incisal embrasures, as well as enabling final shade selection.

Evanesce was selected as the restorative composite for its nano-hybrid properties; high flexural strength vital to this application; its handling characteristics and Evanesce's ability to blend in seamlessly into the surrounding tooth structure.

Once completed, a lingual matrix was fabricated using Template Ultra Quick Matrix Material (Clinician's Choice) (FIG 3) and trimmed not to extend beyond the facio-incisal line angle. The lingual matrix is integral to transferring the lingual contours, incisal edge thickness and location as well as the incisal embrasure established in the mock-up to the final restoration.

FIG. 3

A lingual matrix was fabricated from the intraoral composite mock-up in under one minute using Template Ultra Quick Matrix Material (Clinician's Choice).

The unbonded composite mock-up was easily removed from the teeth as the lingual matrix was tried in for fit and accuracy. (FIG 4) Preparation of the worn teeth consisted in the placement of a strong facial bevel of 2mm and a lesser lingual bevel of 1.5mm using the K0358 Fahl Composite System (Brasseler). This was followed by particle air abrading the enamel surface with 27μ Al2O3 using a Microetcher (Danville) to remove the aprismatic enamel for bond enhancement. (FIG 5)

FIG. 4

The facial aspect of the lingual matrix is trimmed up to, but not beyond, the inciso-facial line angle. It is then replaced on the teeth and assessed for accuracy of fit.

FIG. 5

Bonding is enhanced through the removal of aprismatic enamel using air abrasion.

All anterior maxillary teeth were isolated using a length of dead soft metal matrix, and phosphoric acid was placed up to the middle 1/3 of all teeth simultaneously. (FIG 6) After vigorously rinsing off the acid and controlling the moisture level of the enamel and exposed dentin, Optibond Fl adhesive (Kerr) was applied to the etched surfaces (FIG 7), per the manufacturer's recommendation, and light-cured.

FIG. 6

Phosphoric acid is simultaneously applied well beyond the beveled margin, covering roughly 1/3 of the tooth.

FIG. 7

Adhesive is applied onto and beyond the etched enamel on all the prepared teeth at once, followed by air-thinning/drying and light-curing.

A line scribed onto the interior of the lingual matrix corresponding to the worn incisal edge provides a guide to the placement of an even layer of 2/3 of a mm of Evanesce A2D after which the lingual matrix is re-seated and the lingual shell is adapted to the prepared teeth and light-cured. (FIG 8)

FIG. 8

The lingual shell is created by placing a thin layer of the A2D composite into the incisal aspect of the lingual matrix. It is helpful to scribe a line into the matrix at the level of the worn incisal edge in order to guide your placement of the composite. The lingual matrix is then re-fitted to the teeth and the lingual shell is adapted to the prepared teeth and light-cured in place.

Continued...

FIG. 9

The lingual shell should be as thin as possible in order to allow room for the subsequent layers.

It is critical that this lingual shell of composite be of a homogeneous thickness all throughout to allow for a controlled and effective layering of the subsequent composite layers. (FIG 9)

The next layer of Evanesce A2D is carefully placed into the lingual shell. This layer is intended to create a more opacious layer that will blend smoothly into the surrounding tooth structure. Areas of relief within this layer, incisally and proximally (FIG 10), are left to provide room for the placement of the more translucent Evanesce ENI layer to impart a natural enamel depth and halo effect, and this layer is light-cured. The application of this A2D composite layer is accomplished simultaneously on all prepared teeth to better control thickness and contours. Evanesce ENI is now placed to the full facial contour with a slight excess left for finishing. (FIG 11)

FIG. 10

The next layer of A2D is placed within the lingual shell and blended into the surrounding tooth structure, leaving areas of relief proximally and incisally for the more translucent final layer of ENI.

FIG. 11

Application of the final layer of the more translucent Evanesce ENI into the recessed areas of the A2D.

Blending of both the A2D to the surrounding tooth structure and the ENI to the A2D layer is nicely facilitated with a #3 composite brush (Cosmedent) and Wetting Resin (Ultradent). (FIG 12)

FIG. 12

Spreading and blending of composite to a previous layer and surrounding tooth structure is greatly aided by the use of a small amount of a modelling resin on a #3 composite brush.

The patient's natural dentition lacked any secondary or tertiary anatomy so no texturing of the facial surface was necessary. Finishing of the restorations consisted of the sequential use of Contours Finishing and Polishing Discs (Clinician's Choice). (FIG 13) This allowed the immediate use of the A.S.A.P. All Surface Access Polishers (Clinician's Choice). (FIG 14) This one-shape, 2-step diamond polishing system quickly brings out the high luster of the composite. The combination of the Evanesce nano-hybrid composite, A.S.A.P. Polishers and a smooth tooth surface texture eliminated the need to go further in the polishing sequence with a polishing paste. (FIG 15)

FIG. 13

Finishing and refining of the primary anatomy is achieved using Contours Finishing and Polishing Discs (Clinician's Choice) in sequence from coarse to superfine.

FIG. 14

The high luster of the final restorations is quickly attained using A.S.A.P. 2-step diamond polishing system (Clinician's Choice). The peach Final High Shine Polisher is shown here. This step is preceded by the purple Pre-polisher. Light pressure at 10-12000 rpms for 15–30 seconds per restoration is recommended.

FIG. 15

Immediate post-op showing natural form, function and esthetics being restored to the worn dentition.

FIG. 16

The lingual matrix is seamlessly replaced onto the final restorations, confirming the accuracy and value of the functional intraoral composite mock-up.

The lingual matrix was immediately placed back onto the finished restorations and confirmed the fit of the new restorations to the ideal scenario established at the mock-up stage. (FIG 16) These restorations are being carefully followed up, highly esthetic, and functioning very well over time without undo wear or fracture.

This case not only underscores the importance of an accurate diagnosis and treatment planning but also highlights the optional use of conservative composite restorations to restore excessively worn teeth without the further removal of tooth structure. Improvements in the overall strength, esthetics, and handling of composite material have made it a legitimate treatment option in cases involving the worn anterior dentition. Furthermore, in contrast to a wax-up on mounted models, a carefully constructed composite intraoral mock-up that can be accurately impressed and transferred to the prepared teeth can lead to an efficient and predictable composite restorative solution. The worn anterior dentition is often treated with porcelain laminate veneers; however, this case demonstrates the ability to treat these cases with composite and without compromise, reflecting today's desire for minimally invasive dentistry.

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Smile Enhancement in the Era of Minimal Tooth Reduction

Dimple Desai
DDS, AAACD

Dr. Dimple Desai is the founder of Luminous Smiles of Newport Beach, a boutique dental practice focusing on rejuvenating patients' lives through their smiles. She has been recognized locally as Orange County's Top Dentist for the past three years and was selected as one of the Top 40 Dentists under the age of 40 in the country. Dr. Desai obtained both her Bachelor's degree in Dental Hygiene and a Doctorate of Dental Surgery from the University of Southern California, and later returned to her Alma Mater as a Clinical Adjunct Professor to educate dental students on the clinic floor. Dr. Desai is also a graduate of the Kois Institute and is an Accredited Member of the American Academy of Cosmetic Dentistry.

There is a constant stream of social media content depicting a wide variety of methods of improving one's smile. These vary from at-home and in-office tooth whitening to actual dental procedures that alter existing tooth shape and positioning. In many cases, viewing even moderate tooth reduction on these social media platforms can produce anxiety in a patient that is actually contemplating such a dental procedure. Such was the case with a 43-year-old patient whose son was undergoing Invasalign treatment in the office. Due to the abundance of information on social media regarding the aggressive removal of tooth structure in order to improve smile esthetics, she was cautious, even fearful, of seeking dental treatment to improve hers. As she frequented her son's appointments, she became comfortable enough to broach the subject and inquire as to the possibilities of improving her smile.

The patient's desire was to have her smile improved by having her teeth longer and look more natural, and in fact presented with maxillary anterior wear (FIG 1A, 1B). Her teeth were scanned, and models were fabricated and mounted. This revealed the moderate wear of the maxillary anterior teeth as well as a constricted bite.

FIG. 1A

FIG. 1B

Patient presented with moderate maxillary incisal wear and a desire to have her smile improved with minimal tooth reduction.

The patient subsequently agreed to the treatment plan of Invisalign therapy of approximately 3 months to improve the constricted bite; crown lengthening of teeth #8 and #9 to assist in overall esthetics; and either composite or porcelain veneers on teeth #7 to 10. The patient accepted the treatment plan and readily chose the composite veneer option due to the conservative nature of the tooth preparation, however she was very insistent that as much tooth structure as possible be preserved.

An in-office wax-up was prepared on the mounted models to establish ideal incisal length and thickness as well as lingual and facio-incisal contours. A lingual matrix was fabricated using Template Ultra Quick Matrix Material (Clinician's Choice) on a model of the wax-up in order to accurately transfer this information to the final restorations. (FIG 2)

FIG. 2

A lingual matrix impression of the wax-up is taken using Template Ultra Quick Matrix Material (Clinician's Choice). This lingual matrix will allow for the accurate transfer of the ideal lingual contour and incisal length and thickness to the final restoration.

The composite chosen was Evanesce due to its optimal handling properties, its high polishability and the absence of any air bubbles upon direct placement onto the tooth. Shade selection was made using a Smile Lite (Smile Line) and placing three triangular samples of three possible shades on a central incisor. These were placed vertically on the facial surface and progressed from thicker to thinner from cervical to incisal then light-cured. These were evaluated under the Smile Lite and Evanesce A1 Universal, B1 Enamel and Enamel White were chosen.

Crown lengthening was carried out on the same day as the composite veneer placement using a surgical blade and a KB chisel. Gingival margins were clean with an absence of any bleeding prior to the placement of the composite. In the event of any threat of blood contamination, a dry retraction cord would have been placed. Tooth preparation of teeth #7–10 was extremely conservative, consisting of discing of the incisal edges and corners and air abrasion of the facial and lingual enamel surfaces. The entire restorative process, including preparation, was carried out one tooth at a time beginning with the central incisors, followed by the lateral incisors. Isolation was achieved using Optragate (Ivoclar) and a combination of mylar, metal matrices (Kerr Dental), as well as Teflon tape throughout the procedure.

Each tooth was subsequently etched, rinsed and All Bond Universal Adhesive (Bisco), was applied, air dried then light-cured. A small amount of Evanesce Enamel White was placed into the incisal portion of the lingual matrix (FIG 3). This was made as thin as possible using a Composite Ninja (Clinician's Choice) (FIG 4), then transferred and adapted into place along the lingual margin. This was light-cured prior to removing the lingual

FIG. 3

A small amount of Evanesce Enamel White (Clinician's Choice) is placed into the incisal portion of the lingual matrix.

FIG. 4

Using a Composite Ninja (Clinician's Choice), the Enamel White is thinned out as much as possible within the matrix prior to being taken to the prepared teeth and adapted in place.

matrix. Subsequent layers of Evanesce A1 Universal and B1 Enamel were then placed, and light-cured in 2-3 increments per tooth. Placement and adaptation to the tooth was achieved using a Composite Ninja (Clinician's Choice) and OptraSculpt Pads (Ivoclar). Tints were sparingly applied as needed to this layer. A Composculpt #1/2 (Hu-Friedy) instrument was useful in establishing facial lobe development, thus creating depressions for the final layer of Evanesce Enamel Clear to provide the illusion of depth. Each increment and layer of composite was smoothed and blended into the surrounding tooth structure and previous layer using a #3 composite brush (Cosmedent) lightly coated with ResinBlend LV Composite Blending Resin (Clinician's Choice). (FIG 5)

FIG. 5

Prior to light-curing, each layer of composite is smoothed and blended into the previous layer using a #3 Composite brush (Cosmedent) lightly coated with a resin wetting agent, ResinBlend LV (Clinician's Choice).

The patient's natural teeth lacked incisal translucency and facial texture and therefore declined having it included in her final restorations. With the lingual contours and incisal length and thickness established in the wax-up successfully transferred from the lingual matrix to the final restorations, only minimal finishing was necessary. The desired facial contours and line angles were traced onto the composite surface with a pencil. Coarse and medium Contours Finishing and Polishing Discs (Clinician's Choice) were used to shape the composites using the pencil lines as guides. Fine and superfine discs completed the disc sequence. A.S.A.P. Dailies All Surface Access Diamond Polishers (Clinician's Choice) were used to

FIG. 6

A.S.A.P. Dailies All Surface Access Diamond Polishers are used to achieve a rapid high luster. The 2-step polishing system starts with the purple Pre-polisher, followed by the peach Final High Shine Polisher (shown above).

quickly achieve a very high luster polish. (FIG 6) The purple Pre-polisher was followed by the peach Final High Shine polisher. Each polisher was used with light pressure for 15 – 20 seconds per surface, per tooth.

Same-day photos were taken, and the patient was thrilled with the esthetic result. Later, upon critical analysis of the clinical photos, it was determined that tooth #8 could be lengthened slightly to better match tooth #9. At the subsequent follow-up appointment, the patient was shown this slight length discrepancy using Keynote. She understood and agreed to this minor change. Once the modification was made to tooth #8, the patient loved the way her smile and bite felt now that it more closely mirrored tooth #9. (FIG 7A, 7B)

FIG. 7A

FIG. 7B

Final composite veneer restorations on teeth #7 through 10 achieved using minimal tooth reduction.

In the end the patient was considerably pleased with her decision to pursue an improvement in her smile, especially given her anxiety at having any tooth structure removed to facilitate it. Throughout the procedure, she required constant assurance that, despite the sound of the handpiece, every attempt at achieving an ultra-conservative solution was being made without compromising the final esthetic result. Social media has had a positive effect on creating interest in improving one's smile and often steering potential patients into dental offices for clinical evaluations. However, this information can also create a negative opinion, anxiety and fear as to what extent tooth reduction is necessary to satisfy their desire for an improved smile. Composite veneers can provide a long-term esthetic solution without significant tooth structure removal, along with the possibility of an easy repair, repolishing over time to maintain a high luster, and even a possible change shade without complete removal of the restoration itself.

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Dr. Fred Peck is a Cincinnati area-based family dentist. Being accomplished in cosmetic dental techniques, Dr. Peck has been asked to share his skills and knowledge with his dental peers and lectures all over the United States. Dr. Peck never stops learning, he is an Accredited Fellow of the AACD and a graduate of The Kois Center and the Dawson Academy. The Kois Center is a self-funding learning center that focuses on evidence-based dental teaching, taught almost exclusively by Dr. John C. Kois. To learn more about The Kois Center visit, **www.koiscenter.com**.

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with **Dr. Ron Kaminer, DMD**

"The Quad-Tray Ultimate Posterior tray is my go-to impression tray for any type of impression material. We all look for key features of our impression materials such as high tear strength and low contact angle, but we sometimes forget the material is only as good as the impression tray it is placed in. The rigid Quad-Tray Ultimate Posterior's low side walls, longer handle, smooth, light-weight aluminum construction and low-profile distal bar make it easy to place in the mouth and comfortable for the patient while providing a distortion-free impression every time. Consider adding the Quad-Tray Ultimate Posterior into your day-to-day routine!"

Dr. Ron Kaminer is a member and educator with Catapult, an educational platform that aims to provide relevant, actionable and pragmatic CE. Through the Catapult education program, Dr. Kaminer has been inspiring dentists with his technologically advanced, thought-provoking programs and his passion for technology and minimally invasive dentistry has allowed him to educate dentists around the globe. Visit **www.catapulteducation.com** for course details and dates.

@vinodentino

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3 Cling2®

Resin Optimized Temporary Cement

with Dr. Rob Ritter, DMD

"In restorative dentistry, doing indirect restorations requires fabrication of provisionals while the final ceramics are being produced at your dental laboratory. Usually, not a great deal of thought goes into the provisional cement selection while the patient is awaiting the ceramic units. I use Cling2. This temp cement changes that. Cling2 cement comes in a dual-barrel syringe, and is easy to dispense and place inside the temporary before seating. Clean-up is simple because of the unique polycarboxylate formulation, which helps it release in large pieces. When the temp is removed, most of the cement is in the temp, which makes clean-up a breeze. This is a must-have in my operatories."

Dr. Robert Ritter and Dr. Christopher Ramsey are the founders of The Protocol, a 2-day course that provides the latest information about patient acquisition, online presence, body language as well as dental material selection, digital chair side scanning, advanced provisional techniques and ceramics. The Protocol covers every aspect in a timeline to help the dentist apply those skills back in their office the following week. Quite simply, there is no other educational program out in the market right now like The Protocol. Visit **www.theprotocollive.com** for more course information and dates.

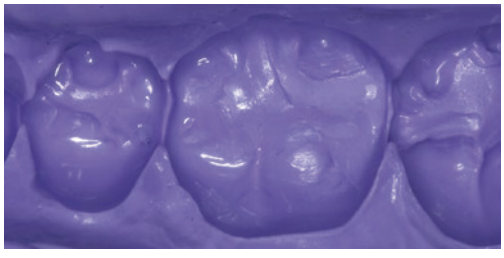
@drrobritter

Scan to learn more about Cling2

4 Template®

Ultra Quick Matrix Material

with Dr. Bob Margeas, DDS



"Whether you are preparing a custom matrix for a crown and bridge prior to preparing the tooth or you have a Class IV fracture that you want to have a rampart to be able to do that first layer, it is important to have accurate and strong margins. Alginate or putty type pre-impression do not provide the accuracy required, so in my practice I use Template from Clinician's Choice. Template is a medium flow impression material that has great detail and a 30-second intraoral set time. After a temporary has been fabricated, the Template impression can be kept as a permanent record that can be re-used in the event the temporary fails prior to cementation of the final restoration."

@drbobmargeas

Scan to learn more about Template

Dr. Margeas is currently an adjunct professor in the department of Operative Dentistry at the University of Iowa and is Board Certified by the American Board of Operative Dentistry. He is a Diplomate of the American Board of Aesthetic Dentistry and a Fellow of the Academy of General Dentistry. Dr. Margeas is a member of the Hands-OnLine LIVE™ faculty, where he provides both live and on-demand hands-on courses focused on cosmetic and restorative dentistry. To learn more about Hands-OnLine LIVE and register for upcoming course visit, **www.handsonlinelive.com**.

5 Zircules™

Zirconia Nano-Filled Core Material

with Dr. Dean Vafiadis, DDS

"Throughout my career I have always used core build-up materials to get ideal preparations. When I started using Zircules, it was a game changer. The small precise tips, the stiffness, immediate setting time was like no other. The preparation feels just like a tooth. The durability and handling were so much easier and predictable. I highly recommend this core material for aesthetics and core build-ups. It has made my restorations lasts longer and have great translucent character similar to tooth structure."

Dr. Dean Vafiadis received his dental degree and Prosthodontic specialty training at New York University College of Dentistry. He is currently the Director of the Full-Mouth Rehabilitation CE course at NYU and an Associate Professor of Prosthodontics at NYU College of Dentistry. He is the founder of the New York Smile Institute in NY. which is an educational center, full-service laboratory and learning facility as well as a private practice location for a multi-specialty practice for Implant and Aesthetic Dentistry. To learn more about the New York Smile Institute visit, **www.nysi.org**.

@drdean007

Scan to learn more about Zircules

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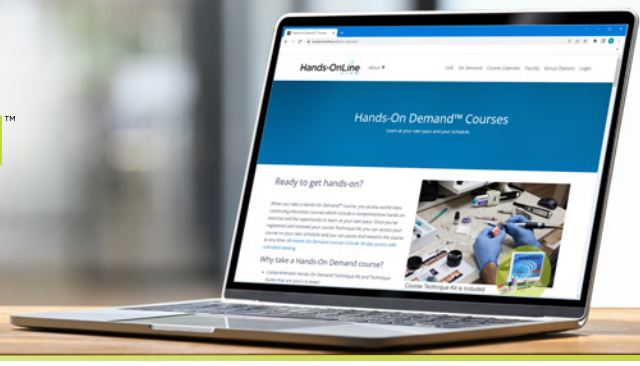

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imP.R.E.S. Dental Education Redefined

with Amanda Seay, DDS, FAACD, FAGD and Adamo Notarantonio, DDS, FICOI, FAACD

When a combined forty+ years of hands-on clinical experience, an uncompromising dedication to advanced training (with the AACD and Kois Center, to name a few), and a passion for excellence in cosmetic dentistry come together, the result is a successful business partnership and the creation of imP.R.E.S. Dental Education.

Both Fellow Accredited Members of the AACD, Dr. Amanda Seay and Dr. Adamo Notarantonio harnessed their collective knowledge to develop imP.R.E.S. Dental Education, an internationally recognized dental esthetics continuum. They offer intimate class sizes, top-notch lectures, and hands-on instructions. With a personal interest in the success of each of their participants, attendees can expect a deep-dive into the science and artistry of restorative dentistry, while gaining numerous practice pearls ready to put into every day practice the next day.

> **"Thank you Amanda and Adamo for some of the best hands-on learning I've ever received. My patients have received better care because of you both. Thank you for making me a better dentist."**
>
> -Anonymous review

Their commitment to advanced training and leadership has not been without award and accolades. Both Dr. Seay and Dr. Notarantonio have been awarded "Top Instructor" and their imP.R.E.S. courses awarded "Top Course Provider" from Course Karma. To their individual credit, Dr. Seay was named one of the Top 25 Women in Dentistry in 2012 by Dental Products Report, while Dr. Notarantonio was awarded AACD's Rising Star Award.

Offering five courses throughout the year that focus exclusively on cosmetic and restorative dentistry, as well as dental photography, attendees can choose from the following 2-day or 4-day intensive course options.

The COLLIDEOSCOPE Series is an in-depth 2-day course designed to improve the skills of the dentist as it relates to dental photography. An understanding of the foundations of photography, camera equipment,

principles of image capturing and protocols for editing images will be developed. Attendees will learn hands-on clinical photo techniques, portrait photography and hands-on smile design and lab communication.

The BLUEPRINT Series is an intense 2-day course that has been designed to improve the skills of the dentist as it relates to indirect esthetic restorations. The focus will be on preparation design for anterior and posterior porcelain restoration, material choices and selection processes, impression techniques and methods of provisionalization.

The FRAMEWORK Series is a 2-day course that has been designed to improve the skills of dentists as it relates to smile design, diastema closure, and the injection technique with resin. Attendees will get an understanding of smile design and its evolution as well as conventional and digital smile design techniques. They will learn basic diastema closure, digital diastema closure with a printed matrix and injection technique and using tints and opaquers for incisal effects.

The SYNERGY track is a 4-day intensive course combing the NEXUS and SYNTHESIS 2 series. NEXUS is a unique 2-day course that is designed to improve the skills of dentists as it relates to adhesive dentistry, bonding protocols, techniques and dental materials. Proper isolation will also be a major focus. SYNTHESIS is an intense 2-day course that is designed to improve the skills of dentists as it relates to shade mapping, handling of composite, artistic creation and replication of natural teeth with resin. NEXUS and SYNTHESIS courses are also offered separately.

To learn more about imP.R.E.S. courses and to register for an upcoming series, visit www.imprescourses.com or scan the QR code.

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A.S.A.P. INDIRECT+

Clinician's Choice
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91% overall rating

2022 TOP AWARD WINNER

Description

A.S.A.P. INDIRECT+ is an intraoral, diamond polishing system for indirect ceramic restorations. The diamond-impregnated adjusters in disc, point and cylinder shapes can be used to make minor adjustments or remove scratches introduced by diamond burs during adjustments. Diamond-impregnated pre-polisher (blue) and final polisher (pink) spiral wheels provide for a high-gloss finish polish. The adjusters, pre-polishers and final polishers are autoclavable. ***A.S.A.P. INDIRECT+*** is available in a starter kit containing three adjusters (one each in disc, point and cylinder shapes), one spiral wheel pre-polisher (blue) and one spiral wheel final polisher (pink). In addition, a refill pack is available containing two polishers (1 ea: pre-polisher and final polisher), as well as refill packs containing either three pre-polishers, final polisher, or point, cylinder or disc adjusters.

Unique Features

- Color-coded adjusters, pre-polisher and final polisher
- High concentration of diamond particles and durable silicone binder
- Suitable for all restorative surfaces

Clinical Tips

- Great for adjusting screw-retained implant restorations. The intraoral design allows for efficient adjustment without constant removal of the restoration to adjust it extraorally.
- Use both spiral polishers to get a high gloss.
- Try using a diamond or porcelain polishing paste with the grey wheel.
- Light pressure works best.

"EASY TO USE, EFFICIENT POLISHING AND GREAT RESULTS."

Consultants' Comments

- *"It's easy to retain the surface anatomy with these polishers."*
- *"I used it on zirconia crowns and the luster was great."*
- *"I like that you can attach it to a latch slow–speed handpiece for intraoral use."*
- *"Good selection of shapes."*
- *"The polishers left a surface that was almost better than a glaze."*

Indication

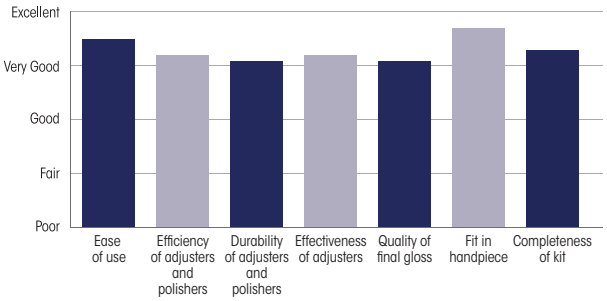
- Intraoral polishing of indirect ceramic restorations

Evaluation Highlights

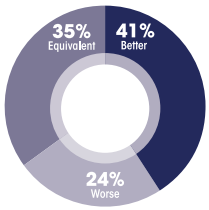
A.S.A.P. INDIRECT+ was evaluated by 29 consultants and was used 456 times in total.

- Easy to use
- Efficient adjustment and polishing
- Adaptable spiral wheels
- Autoclavable adjusters, pre-polishers and final polishers

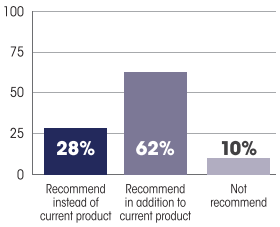
Key Features:



Compared to Competitive Products:



Percentage of Consultants Who Would:



Ask the Expert: An Interview with Nate Lawson, DMD, MA, PhD on the Fabrication of Temporary Restorations

Nate Lawson
DMD, MA, PhD

Nate Lawson DMD, MA, PhD is the Director of the Division of Biomaterials at the University of Alabama at Birmingham School of Dentistry and the program director of the Biomaterials residency program. He graduated from UAB School of Dentistry in 2011 and obtained his PhD in Biomedical Engineering in 2012. His research interests are the mechanical, optical, and biologic properties of dental materials and clinical evaluation of new dental materials. He was the 2016 recipient of the Stanford New Investigator Award and the 2017 3M Innovative Research Fellowship both from the American Dental Association. He served on the American Dental Association Council of Scientific Affairs and is on the editorial board of The Journal of Adhesive Dentistry and Compendium. He has lectured nationally and internationally on the subject of dental materials. He also works as a general dentist in the UAB Faculty Practice.

Q How do you fabricate temporaries for fixed restorations?

A There are several methods used to fabricate temporary restorations. They range in complexity from "block" temporaries, formed from the free-hand carving of set temporary material placed over the prepared tooth, to pre-fabricated stainless steel or acrylic temporary crowns to 3D printed or milled temporaries. Perhaps the most common method to fabricate temporary crowns, however, is to create a matrix of the ideal shape of the tooth and insert a bisacryl or acrylic temporary material between the matrix and the prepared tooth. This is my preferred technique in my day-to-day crown and bridge procedures.

Q What materials can you use to fabricate a matrix for a temporary restoration?

A Matrices for temporary restorations may be fabricated out of clear thermoform sheets or impression materials. Thermoform sheets allow the clinician to see the adaptation of the temporary material around the tooth preparation when seating the matrix which may help to prevent bubbles or voids in the temporary restoration. The disadvantage of a thermoform matrix; however, is that the clinician must possess a hard model of the ideal shape of the tooth. Therefore, impression materials are commonly used as matrices for temporaries. Alginate impressions are sometimes used as a matrix for temporary restorations due to their fast setting time and low cost. Alginates have poor detail reproduction which will affect their ability to reproduce a temporary with good marginal adaption and occlusal fit. Alginates also dry out quickly and have low tear strength which means that they cannot be re-used in the case that the patient needs to have a temporary re-made. Silicone-based impression materials, therefore, are a favorite material for temporary matrix materials.

Q What are desirable properties of a temporary matrix material?

A An ideal temporary matrix material will have good detail reproduction so that temporary material will closely adapt to the tooth preparation as well as accurately replicate the contours and occlusal anatomy of the ideal temporary. This reduces the amount of time needed to ensure a proper fit and finishing of the temporary. The contours of the temporary ensure good tissue health and occlusal comfort and stability over the temporization period. A matrix material should also set quickly as very little working time is needed for this application. Finally, a matrix material should be dimensionally stable and have good tear strength so that it can be re-used if necessary. Bite registration materials are frequently used to achieve these properties.

Q Why do you like to use Template as temporary matrix material?

A Template is a silicone-based matrix material with a high detail accuracy and a 30-second setting time. This material has a faster setting time than most bite registration materials and better detail reproduction than bite registration materials. Because it is silicone-based, it has high tear strength and it is dimensionally stable.

Q What are the other applications for Template?

A Template is also useful with direct restorations. It can be used to form a lingual matrix for anterior composite restorations. For this method, a mock-up of the ideal lingual contours of the anterior tooth are built with old composite in the mouth. Only the lingual contours, incisal edge position and approximate occlusion need to be considered for this buildup. The lingual surface, including the facio-incisal line angle, is then impressed with Template. This lingual matrix is then used to build up layers of composite for the final restoration. Additionally, a buccal matrix using Template fabricated from a hard model of a diagnostic wax-up can be used as a facial reduction guide when preparing for direct or indirect veneers.

Q How would you create a temporary for a tooth that does not begin as an intact tooth?

A This scenario can create a time-management headache in a busy clinical setting. In this case of a fractured crown (FIG. 1) where a portion of the crown remains cemented on a vital tooth, the patient was experiencing sensitivity due to exposed dentin and required immediate temporary coverage. In any clinical setting, available chair time may be limited and may not allow for obtaining an impression of the fractured tooth along with the opposing dentition and fabricating a temporary matrix from an ideal wax-up. Therefore, the clinician may build up the tooth with old or expired

composite or wax and then take an impression of the tooth. One challenge with this method, however, is that the composite or wax buildup may dislodge from the tooth in the process of taking the impression of the tooth. In order to avoid this another technique was utilized. An impression of the non-intact tooth was taken using Template Ultra Quick Matrix Material (Clinician's Choice) in a Quad-Tray Xtreme (Clinician's Choice) dual-arch impression tray. (FIG 2) The remaining restoration was then removed from the impression using a bur in order to provide room for a full thickness temporary. It was necessary to perforate the temporary impression in order to gain sufficient space. (FIG. 3) At this point, the temporary impression was set aside until the tooth was re-prepared for the new restoration. Once the temporary crown was fabricated using Inspire Esthetic Provisional Composite (Clinician's Choice), it was necessary to quickly recontour and establish proper occlusion as well as remove some flash that resulted from the perforated impression. This was easily accomplished with finishing burs prior to cementation. (FIG. 4) Cling2 Resin Optimized Temporary Cement (Clinician's Choice) is ideal for providing a stable, healthy and sensitivity-free temporization stage. (FIG. 5)

FIG. 1

Patient presented as an emergency patient with a fractured ceramic crown. The tooth was vital and the patient was experiencing sensitivity due to exposed dentin.

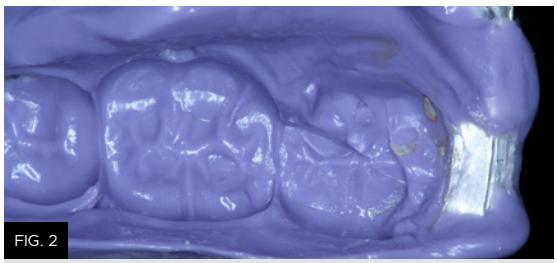


FIG. 2

An impression of the fractured crown was taken quickly with Template in a Quad-Tray Xtreme.

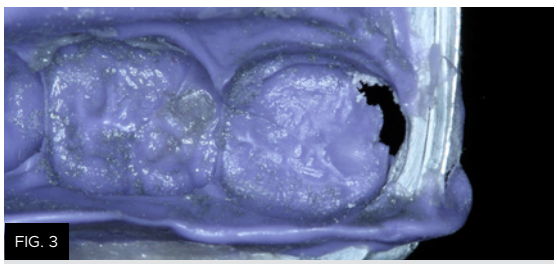


FIG. 3

The areas of the missing crown structure were removed with a rotary instrument. It is important that sufficient material is removed to allow for adequate thickness of temporary material.

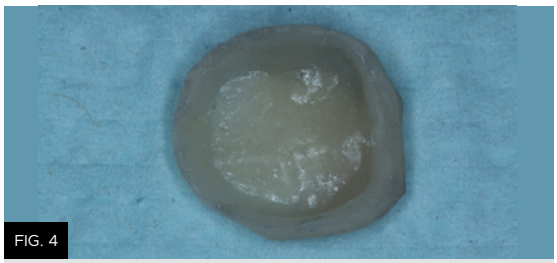


FIG. 4

The temporary crown was removed from matrix and quickly recontoured to remove bulk and flash and then polished.

FIG. 5

The temporary crown was cemented with temporary cement. Occlusion was adjusted. Note that this method may not create anatomic occlusal contours unless clinician creates them with finishing burs.

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