Pressed-to-Captek: Pushing the Restorative Envelope
George Freedman, DDS, FAACD, FACD

Pressed-to-Zirconia: Superior Marginal Reproduction
David A. Little, DDS
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Treatment Presentation for Successful Practice Building
Paul Homoly, DDS

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Paul Homoly, DDS
Throughout our years of dedication to the dental profession, practitioners have depended upon Trident Dental Laboratories to provide resources to build, manage, and expand their practices. These resources enable clinicians to augment their restorative options and also empower patients to make educated choices that improve their oral healthcare.

RESOURCES TO MANAGE AND EXPAND PRACTICES

This initial issue of 2005 is devoted to the esthetic and revenue-enhancing advantages of pressed-to-Captek and pressed-to-zirconia restorations. Each material provides exceptional strength and durability to satisfy treatment indications in the anterior and posterior region. A strategic formula by which to incorporate each modality into the restorative therapy protocol is also presented by Dr. Paul Homoly, practice management specialist.

Our newly developed Extreme Smile Makeover™ Kit (featured in the previous issue of Perspectives) enables dental professionals to engage with patients concerning their oral health goals. Trident has requested feedback from renowned industry leaders on their personal experiences utilizing the kit; their suggestions on implementation of the kit can be reviewed in this newsletter. Take advantage of our introductory offer of $50 and discover how your patients and your practice can benefit from this kit. Finally, we encourage you to review the special offers enclosed in this issue.

Trident wishes all of our clients continued health as well as professional and personal achievement for the new year. If we can be of further assistance or if you have any questions or comments, please do not hesitate to contact Trident at 800-221-4831.

Sincerely,

Laurence Fishman
Owner, President
Trident Dental Laboratories
Advancements in technology (ie, gold- and zirconia-based restorations) have generated energy and excitement about the esthetic results that may be attainable utilizing these materials. Garnering case acceptance of these options, however, may often present a greater challenge than performing the treatment.

Obstacles to case acceptance may result from a myriad of factors. While esthetics is the primary goal of restorative treatment, patients, nevertheless, may be apprehensive of “new” technology, particularly if they determine that they’re being sold on a specific treatment or concerned about additional costs or extended healing time. These factors may result in the patient opting to remain with traditional therapy or waiting until he or she experiences significant discomfort prior to pursuing treatment.

Presentation Strategy
The introduction of innovative treatment requires a specific strategy to stimulate interest and encourage treatment scheduling. As a practice management consultant who has conducted workshops on methods to excel in case acceptance, I recommend the following tips to assist dental professionals in this endeavor:

- Identify patients who have the highest probability of accepting complete care.
- Discuss the new treatment options in terms that the patient can understand.
- Avoid using detailed descriptions of the restorative material.
- Reiterate the benefits of the restorative material for the patient (ie, esthetics, strength, durability, biocompatibility).
- Become an advocate by determining how the proposed treatment suits the patient’s individual needs.

Seek Support From Your Laboratory
The development of resources such as the Extreme Smile Makeover™ Kit from Trident Dental Laboratories provides educational and interactive materials that assist dental professionals in treatment presentation and case acceptance. These materials also stimulate patient interest in restorative therapy and help the clinician to answer any questions posed by the patient about the treatment. In addition, treatment options are presented in a consumer-friendly manner to promote communication between the patient and the dental team.

Conclusion
While advancements in dental materials and technology have expanded the restorative services available to patients, obtaining patient acceptance of these innovations is seldom an easy feat. Specific guidelines as well as resources from the laboratory enable dental professionals to achieve restorative goals through case acceptance and patient satisfaction, maintain the integrity of the practice, and build a profit center as well.

President, Homoly Communications Institute, Holt, MI, that provides seminars, workshops, and consultations for dental professionals on case acceptance, leadership, and practice management. He is also the author of Dentists: An Endangered Species and Isn’t it Wonderful When Patients Say Yes. He can be reached at paul@paulhomoly.com.
Innovative restorative materials such as Captek and pressed ceramics have contributed to the attainability of esthetic smiles. Captek is a thin, yet strong, noncast metal, is oxide-free, and can accommodate any type of margin design. It can also be conventionally (or resin) cemented and has been clinically proven to reduce marginal plaque levels.\(^1\) The versatile Captek substructure for crowns and bridges is compatible with a variety of veneering materials, including many types of feldspathic ceramics.

In an effort to eliminate the porosities and other inconsistencies in hand-stacked porcelain, as well as improve overall physical properties, the process of casting (or pressing) ceramic was introduced. Pressed ceramic crowns have offered excellent esthetics and wear and have been clinically proven in millions of successful cases.\(^2\) While the original pressed ceramic systems were designed for metal-free restorations, the novel technology enabled the incorporation of leucite crystals and fluorescing agents that deliver improved strength and appearance.

The success of these modalities has resulted in mixing of the two technologies—the concept of pressing ceramic to a Captek framework.\(^3\) Captek's unique stress-relieving properties at the ceramic/metal interface may provide an additional benefit over traditional metals. Less stress at the ceramic/metal interface results in fewer fractures and lost facings. Since Captek requires less opaquer between the metal and ceramic (the partial golden shine-through is esthetically desirable), the cast ceramic layer can be thinner, and, hence, less preparation of tooth structure is necessary. The pressing technique also offers stronger ceramic veneering materials and more efficient porcelain margins. By combining the unique light-scattering properties of cast ceramics with the dentin-colored, gold substructure of Captek, truly striking esthetics can be achieved. In addition, the reduction of plaque adhesion at the margins may significantly increase the intraoral longevity of these restorations.

**References**
1, 2, 3 Data on file.

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**Clinical Perspective**

**Pressed-to-Captek: Pushing the Restorative Envelope**

George Freedman, DDS, FAAACD, FACD

A 35-year-old female patient presented to the office with a request for replacement of an unesthetic crown restoration on her lower right first molar. The gingival tissue had receded on the facial aspect of the tooth, resulting in a “crown-like” appearance (Figure 1). In order to meet the esthetic needs of the patient and to satisfy a perfectionist such as myself, it was crucial to partner with a laboratory team such as Trident's that was committed to the final outcome as well.

Following removal of the preexisting crown restoration, sounding to bone was performed on the facial aspect of the tooth to determine the position of the facial margin. Captek was chosen as the restorative material due to its strength, durability, and esthetics. The tooth was then prepared; the ideal preparation can be modified depending on treatment goals (ie, esthetics or heavy occlusion).

Close inspection of the tooth’s characteristics revealed multiple colors, hypocalcification spots, and deep anatomy—contributing to a challenging case. It was vital, therefore, that this information be communicated in detail to the laboratory to ensure optimal definitive results.

Crown placement routinely necessitates at least three appointments (ie, preparation, try-in, and cementation). In this case, the crown restoration required only two try-in appointments. At cementation, the Captek crown had a natural appearance, eliminating grayness at the gingival margin, as well as adding gingival color. The exceptional esthetics and precise fit of the Captek crown (Figures 2 and 3) exceeded the expectations of the patient and the clinician.

Laboratory restoration fabricated by Trident Dental Laboratories.

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**Private practice limited to esthetic dentistry, Toronto, Canada.**
The fabrication of tooth-colored, all-ceramic anterior and posterior restorations remains a focus of esthetic dentistry. High-strength materials such as transformation-toughened zirconia provide additional metal-free options for conservative treatment requirements. These include Cercon® Zirconia (Dentsply), Lava™ (3M Espe), DC-Zirkon (Popp DCS), Procera® Bridge Zirconia (Nobel Biocare), and YZ (Sirona). Many zirconia systems can be used in bridges of up to three or four units. The Cercon and Sirona systems enable bridge spans of 47 mm and 43 mm, respectively, and three-unit inlay bridges are also possible with the Cercon system.

Most zirconia materials are veneered with feldspathic ceramics utilizing techniques analogous to conventional porcelain-fused-to-metal buildups. An alternative veneering method involves a medium-pressure injection into a lost-wax mold, a process known as pressing. This enables wax refinement of tooth contours, and ensures a homogenous ceramic buildup. In addition, the zirconia substructure may be fabricated approximately 1 mm short of the margins; a pressed porcelain margin may then be created. This press-over technique enhances esthetics and also provides superior results for custom applications such as inlay bridges and implant superstructures.

Since pressed-to-zirconia materials are comparable in strength to veneering porcelains, there is no compromise in performance. Instead, a homogeneous feldspathic ceramic structure is obtained as a result of the pressed pellet form. This veneering ceramic enables esthetically pressed porcelain margins, which can be acid-etched, silanated, and bonded in place. Superior marginal reproduction is also achieved, as porcelain shrinkage and guesswork are eliminated from the margin firing process.

A 30-year-old female patient presented with a request to restore a missing tooth in the upper right maxillary region. Upon clinical examination, it was evident that tooth #3 had been extracted, a preexisting amalgam restoration was present on tooth #2, and a preexisting composite restoration was present on tooth #4 (Figure 1). Tooth #5 featured an existing root canal with build-up material. The patient was an excellent candidate for a zirconia bridge to restore tooth #2 through tooth #4; a single crown restoration would be placed on tooth #5. Zirconia was chosen for the restoration due to its esthetic properties and durability (Figure 2).

Following removal of the preexisting restorations and decay, the teeth were built up using core buildup material and then prepared for the zirconia restorations. The buccal margins were placed 0.5-mm to 1.0 mm subgingivally. Reduction was checked occlusally and axially to ensure adequate reduction for a natural-looking restoration.

A pontic tooth was placed between tooth #2 and tooth #4. A double-bite impression was then made prior to preparation for the fabrication of the temporary restoration. Following preparation, temporary material was placed in the double-bite impression and then in the patient’s mouth. The patient was instructed to bite down, and any excess material was trimmed to the margin to ensure gingival health during provisionalization.

At the seating appointment, the temporary restoration was removed, the teeth were thoroughly cleaned and pumiced, and the definitive restorations were tried in. The interproximal and occlusal contacts were then verified. A radiograph was obtained to ensure marginal seal, and the restorations were cemented. Excess cement was removed; occlusal and interproximal contacts were also rechecked. The zirconia restorations appeared natural along the gingival margin and displayed none of the grayness associated with traditional metal-ceramic crowns (Figure 3). The patient was extremely satisfied with the outcome of the treatment.

Laboratory restoration fabricated by Trident Dental Laboratories.
The Dental

While the Extreme Smile Makeover Kit encompasses many vital areas of promoting your services to existing and new patients (eg, advertising templates for yellow pages, web sites, etc.), the chairside presenter of “treatment options” is especially helpful, since many practices are not adept at broaching the subject of possible treatment. The before-and-after photographs enable patients to readily visualize results. A great chairside visual aid to assist patients in making a decision about treatment.

Sally McKenzie, CEO,
McKenzie Management
La Jolla, California

The Extreme Smile Makeover Kit facilitates an increase in the amount of elective dentistry that is performed in the office. These highly effective visual tools allow patients to better understand and appreciate how elective dentistry can improve the appearance of their smile. A practical and affordable tool that will benefit every dental practice.

Gary Radz, DDS
Denver, Colorado

The kit is a great way to help patients evaluate their smile and consider what treatment type would best suit their needs. Patients arrive at my office and tell me what they want, eliminating the sales aspect. Consultations are now — explain it, book it, do it.

Anthony Vocaturo, DDS
Bayonne, New Jersey

The key to an active dental practice is continuing patient education. During most patient appointments, there is time to read information, view photographs, or look at models of many types of dental treatments. It is not only our opportunity to perform this task, it is our responsibility. By increasing patient education, you can stimulate increased patient care demands beyond your expectations.*

Gordon J. Christensen, DDS, MSD, PhD
Provo, Utah


At Levin Group, we continually focus on methods and products that can help practices grow. The components of the Extreme Smile Makeover Kit offered by Trident provide value-added tools to heighten interest and educate patients about possible treatment options. Data obtained by the Levin Group clearly show that a well-motivated, educated patient will increase case acceptance and subsequently, production and profitability for the practice.

Roger P. Levin, DDS, MBA
Founder & CEO, Levin Group
Owings Mills, Maryland

From tooth whitening to crown & bridge restorations, the Extreme Smile Makeover Kit can transform your practice from Ordinary to Extraordinary. Get Yours Today!
Community Responds

The assembly of advertising templates provided in the Extreme Smile Makeover Kit offers a variety of resources to supplement external and internal marketing initiatives. In addition, the patient education flip chart provides didactic instruction for treatment presentation for clinicians and utilizes consumer-friendly text for the patient. These materials contribute to more successful implementation of restorative treatment.

John H. Jameson, DDS
Cathy J. Jameson, PhD
Jameson Management
Davis, Oklahoma

The Extreme Smile Makeover Kit is a well-organized, educational program to introduce patients to the benefits of esthetic dentistry. It also helps the staff to professionally present these options to patients. The Smile Quiz is simple to administer and allows patients to evaluate their smile. A great contribution to the profession and particularly to esthetic dentistry.

Cheryl Sheets, DDS
Jacinth Paquette, DDS
Newport Coast Oral Facial Institute
Newport Beach, California

Internal marketing is the secret to success in esthetic dentistry. The Extreme Smile Makeover Kit offers a simple way to professionally profile your office and to visually demonstrate the various treatment options available to patients.

Larry Rosenthal, DDS
New York, New York

Each component of the Extreme Smile Makeover Kit presents patients with a clear depiction of treatment options that will enhance patient acceptance. The “Rate Your Smile” quiz activates patient interaction and dialogue. I would recommend this kit for any dental practice.

Bill Blatchford, DDS
Blatchford Solutions
Bend, Oregon

To purchase your Extreme Smile Makeover Kit, contact Trident at 800-221-4831.
Take Your Patients’ SMILE from ORDINARY to EXTRAORDINARY with

The Extreme Smile Makeover™ Kit

KIT INCLUDES:
- Dental Patient Handbook
- Patient Education Flip Chart
- Appointment Cards (3 different sets)
- Waiting Room Video (VHS)
- Standing Poster
- “Rate Your Smile” Brochures and Display Stand
- CD-ROM / Advertising Templates

$50.00*

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