

# cosmetic dentistry

the international C.E. magazine of beauty & science

1 2011

## **\_c.e. article**

Same day inlays/onlays  
strive to save the tooth

## **\_clinical**

Two-stage esthetic  
crown lengthening

## **\_industry report**

BEAUTIFIL Flow Plus:  
dentistry simplified



# ANNUAL DENTAL TRIBUNE STUDY CLUB SYMPOSIA AT THE GNYDM

NOVEMBER 27<sup>TH</sup> - 30<sup>TH</sup>, 2011, STARTING AT 10:00 AM DAILY



For the fourth year in a row, Dental Tribune Study Club hosts its annual C.E. Symposia at the GNYDM, offering four days of focused lectures in various areas of dentistry. Find us on the exhibition floor in aisle 6000!

Each day will feature a variety of presentations on topics, which will be led by experts in that field. Participants will earn CE credits for each lecture they attend. DTSC is the official online education partner of GNYDM.

PLEASE SEE PROGRAM DETAILS UNDER [WWW.DTSTUDYCLUB.COM/GNYDM](http://WWW.DTSTUDYCLUB.COM/GNYDM)

**PREMIUM  
PROGRAM**

EARN 20 C.E. CREDITS

20h  
CE

REGISTER NOW: [WWW.GNYDM.COM](http://WWW.GNYDM.COM)

ATTENDEES MUST PRE-REGISTER AS GNYDM VISITORS FOR FREE.

## SUNDAY, NOVEMBER 27



10:00 - 11:00 DR. HOWARD GLAZER // COURSE NO. 3780  
**GIOMERS: NEW GIANTS OF MI DENTISTRY**



11:15 - 12:15 DR. SHAMSHUDIN KHERANI // COURSE NO. 3790  
**COMPREHENSIVE DENTISTRY USING DIGITAL IMPRESSION TECHNOLOGY**



12:45 - 1:45 DR. RON KAMINER // COURSE NO. 3800  
**THE HOTTEST TOPICS IN DENTISTRY**



2:00 - 3:00 DR. LOUIS MALCMACHER // COURSE NO. 3810  
**MINIMALLY INVASIVE DENTISTRY: TIPS AND TRICKS TO MAXIMIZE SUCCESS**



3:15 - 4:15 TBA // COURSE NO. 3820  
**TECHNOLOGY TO IMPROVE YOUR CARIES MANAGEMENT**



4:30 - 5:30 DR. GEORGE FREEDMAN // COURSE NO. 3830  
**EVOLVING CONSERVATIVE RESTORATIONS**

## TUESDAY, NOVEMBER 29



10:00 - 11:00 DR. GEORGE FREEDMAN AND DR. FAY GOLDSTEP // COURSE NO. 5690  
**INNOVATIONS THAT WILL CHANGE YOUR PRACTICE FOREVER**



11:15 - 12:15 TBA // COURSE NO. 5700  
**THE IMPORTANCE OF THE FLAP DESIGN IN RELATION TO THE TYPE OF THE UNDERLYING BONE DEFECT**



12:45 - 1:45 DR. GEORGE FREEDMAN AND DR. FAY GOLDSTEP // COURSE NO. 5710  
**THE DIODE LASER: THE ESSENTIAL SOFT TISSUE HANDPIECE**



2:00 - 3:00 DR. SELMA CAMARGO // COURSE NO. 5720  
**LASERS IN ENDODONTICS: CLINICAL APPLICATION FOCUS ON DIFFICULT CASES**



3:15 - 4:15 JULIA WEHKAMP // COURSE NO. 5730  
**ONLINE LEARNING: A NEW APPROACH TO CONTINUING DENTAL EDUCATION**



4:30 - 5:30 DR. MARIUS STEIGMANN // COURSE NO. 5740  
**MY FIRST ESTHETIC IMPLANT CASE - WHY, HOW, & WHEN?**

\*THIS PROGRAM IS SUBJECT TO CHANGE

## MONDAY, NOVEMBER 28



10:00 - 11:00 DR. FAY GOLDSTEP // COURSE NO. 4670  
**WHAT PATIENTS WANT... WHAT DENTISTS WANT: EASY, HEALTHY DENTISTRY!**



11:15 - 12:15 DR. SHAMSHUDIN KHERANI // COURSE NO. 4680  
**LASER DENTISTRY OVERVIEW WITH AN UPDATE ON CLOSED FLAP OSSEOUS**



12:45 - 1:45 DR. LARRY EMMOTT // COURSE NO. 4690  
**REMEMBER WHEN "E" WAS JUST A LETTER? USE E-SERVICES TO IMPROVE PATIENT CARE AND INCREASE PROFITABILITY**



2:00 - 3:00 DR. GEORGE FREEDMAN AND DR. FAY GOLDSTEP // COURSE NO. 4700  
**DIODE LASERS AND RESTORATIVE DENTISTRY**



3:15 - 4:15 DR. DAMIEN MULVANY // COURSE NO. 4710  
**WHY VIEW YOUR 3D PATIENTS WITH 2D IMAGES? A COMMON SENSE APPROACH TO 3D IMAGING IN THE GENERAL PRACTICE**



4:30 - 5:30 DR. MARTY JABLOW // COURSE NO. 4720  
**UNDERSTANDING THE ADVANCES IN SELF-ADHESIVE TECHNOLOGY AND HOW TO INCORPORATE THEM INTO YOUR RESTORATIVE PRACTICE**

## WEDNESDAY, NOVEMBER 30



10:00 - 11:00 DR. MARIUS STEIGMANN // COURSE NO. 6600  
**MY FIRST ESTHETIC IMPLANT CASE - WHY, HOW, & WHEN?**



11:15 - 12:15 DR. GEORGE FREEDMAN AND DR. PAT ROETZER // COURSE NO. 6610  
**CEMENTING ALUMINA AND ZIRCONIA RESTORATIONS**



12:30 - 5:00 **OSSEO SUMMIT**  
DR. DAVID HOEXTER, ALONG WITH VARIOUS IMPLANT EXPERTS // COURSE NO. 6620  
**THE 2ND ANNUAL OSSEO UNIVERSITY SUMMIT: REVOLUTIONARY IMPLANT DESIGN UNVEILED**



**DT STUDY CLUB**  
COURTESY | EDUCATION | TECHNOLOGY | GNYDM

For more information, please contact  
Julia E. Wehkamp, C.E. Director, Dental Tribune Study Club  
Phone: (416) 907-9836, Fax: (212) 244-7185  
E-mail: [j.wehkamp@DTStudyClub.com](mailto:j.wehkamp@DTStudyClub.com)

FREE YOURSELF...



... AND TRY OUR BEST HANDLING COMPOSITE EVER!

**89% fillers by weight:**

- Outstanding wear resistance
- Enhanced color stability

**30-50% less resin compared to classic hybrid and pseudo nano composites:**

- Low shrinkage of only 1.6 vol. %
- Non-sticky
- Prolonged working time under ambient light

**Designer Nano particles:**

- Excellent polishability and polish retention
- Tooth-like modulus of elasticity
- Tooth-like thermal expansion and flexural strength



TRY GRANDIO<sup>SO</sup> NOW  
FOR JUST **\$58**

**GrandioSO**

**89% filled universal Nano Hybrid Composite**  
The Combination of handling, esthetics and performance.



REF 2646 Trial Kit 8 X 0.25 Caps  
(2 X A1, 2 X A2, 2 X A3, 2 X A3.25)  
1 X 1g Grandio SO Heavy Flow  
syringe A2, 1 X Dimanto Polisher

**Call 1-888-658-2584**

# Welcome to cosmetic dentistry



**Torsten Oemus**  
Publisher  
Dental Tribune International

The goal of this quarterly magazine is twofold. First, it seeks to share practical dental knowledge that can be put to use in your day-to-day practice. Second, it is a vehicle to help you chip away at your continuing education (C.E.) requirements.

The amount of new information available in the dental field about new products, techniques and research data is astounding. Running a practice and seeing patients leaves little time for catching up on the latest clinical news and product information. Thus, we hope *Cosmetic Dentistry* will not only be a welcome respite for those rare chunks of time you can devote to leisurely reading, but one that provides a practical return on your investment by providing information that you can actually put to immediate use.

In addition, we know that taking time away from the practice to pursue C.E. credits is costly in terms of lost revenue and time. As a quarterly magazine, *Cosmetic Dentistry* is here to help you chisel at least four C.E. credits per year out of your already busy life without the lost revenue and time away from your practice. To that end, every edition of *Cosmetic Dentistry* will include at least one hour of ADA CERP-certified C.E. credit where readers can answer questions about the materials at [www.dtstudyclub.com](http://www.dtstudyclub.com) to earn this credit. Annual subscribers to the magazine (\$50) need only register at the Dental Tribune Study Club website to access these C.E. quizzes free of charge.

In fact, even non-subscribers may take the C.E. quiz after registering on the DT Study Club website and paying a nominal fee. If you are a practitioner with a penchant for words, it might also interest you to know that authors of the C.E.-accredited articles receive 15 percent of the fees collected from the non-subscribers who take the C.E. quiz online. The C.E. quiz for the articles in this edition will be available online on July 25.

Dental Tribune America is part of the largest dental publishing network in the world, Dental Tribune International (DTI), which consists of 23 license partners around the globe. The DTI network publishes a variety of dental publications that are distributed in more than 90 countries. Please visit us online at [www.dental-tribune.com](http://www.dental-tribune.com) to see the variety of publications we offer, and at [www.dtstudyclub.com](http://www.dtstudyclub.com) to see the complete list of online and offline C.E. opportunities available. In the meantime, we hope you enjoy the first edition and welcome your feedback.

Sincerely,

Torsten Oemus  
Publisher

# Pacific Dental Conference

**March 8–10, 2012** Vancouver, BC

*Join us in Vancouver for Canada's premier dental conference!*



- Earn up to 15 hours of CE credits during three days of lectures and hands-on courses
- Over 100 speakers and 150 open sessions and hands-on courses to choose from, as well as the Live Dentistry Stage in the Exhibit Hall
- Enjoy the largest two day dental tradeshow in Canada featuring all the newest equipment and products at over 500 exhibitor booths in the spacious PDC Exhibit Hall
- Lunches and Exhibit Hall Receptions included in the registration fee
- Online hotel reservations now available
- Shopping, hotels, restaurants and breath-taking Stanley Park are all within blocks of the spectacular Vancouver Convention Centre
- Scenic two hour drive to world famous Whistler Mountain for spring skiing and snowboarding

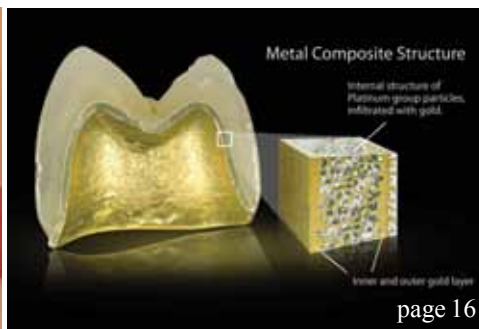


Easy online registration opens October 14th, 2011 at...

**[www.pdconf.com](http://www.pdconf.com)**



page 08



page 16



page 22

## | editorial

04 Welcome to **Cosmetic Dentistry**

\_Torsten Oermus, Publisher

## | C.E. articles

08 Same-day **inlays/onlays** strive to save the tooth

\_Lorin Berland, DMD, FAACD, and Sara Kong, DDS

16 Clinical indications for a **composite metal PFM restorative**

\_Barry F. McArdle, DMD

## | clinical

22 Two-stage esthetic **crown lengthening**

\_Michael Sonick, DMD, Stephen Rothenberg, DMD and Debby Hwang, DMD

## | events

26 Practical education for the **implant dentist**

28 DTSC Symposia at the **Greater N.Y. Dental Meeting**

\_Julia Wehkamp, Dental Tribune Study Club C.E. Director

## | industry report

29 GrandioSO: the ultimate **handling and performance** composite

32 **Nitrous oxide/oxygen sedation:** multidisciplinary application resurgence

34 Pola celebrates **10 years**

36 Universal **self-etch bonding agent**

37 An advancement in **flowable composites**

38 BEAUTIFIL Flow Plus: **dentistry simplified**

40 Quick technique: **Tetric EvoCeram**

43 A **composite** for every need

46 Do you require **patient referrals** and higher **case acceptance** rates?

\_Harold Meredith

## | about the publisher

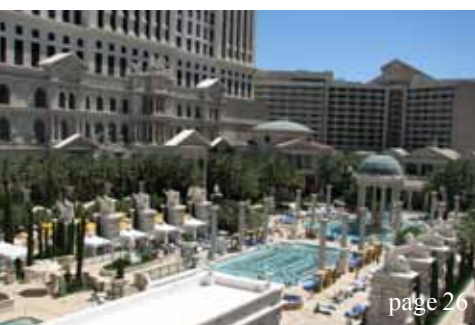
49 \_submissions

50 \_imprint



## | on the cover

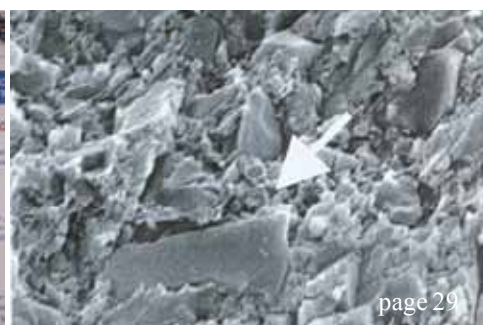
Cover image courtesy of SDI Ltd.



page 26



page 28



page 29



# Let Us Create It!

Visit Us At The AGD, Booth 1016

Website Design  
Logo & Brand Design  
Networking Campaigns  
Custom On Hold Messaging  
Custom Brochures & Gift Cards  
Newspaper & Mailing Campaigns  
Signage, Window & Wall Graphics  
DentalVision 3.0 Custom Video Presentations

**877-265-9069**

[www.DentalMarketers.com](http://www.DentalMarketers.com)



# Same-day inlay/onlays strive to save the tooth

**Authors**\_Lorin Berland, DDS, FAACD, and Sarah Kong, DDS

## \_c.e. credit part I

This article qualifies for C.E. credit. To take the C.E. quiz, log on to [www.dtstudyclub.com](http://www.dtstudyclub.com). The quiz will be available on July 25.

**\_The name of the game in dentistry today is to save the tooth for use in the future.** In this age of adhesive dentistry, respecting and preserving the remaining healthy tooth structure as well as improving esthetics have become components of value as well. With today's advanced technology and materials, longevity is mainly a matter of diagnosis, correct treatment planning and proper execution of technique.

The problem with replacing old amalgams with tooth-colored composites is that they are difficult, inconsistent and unpredictable. Yet, the warranty on these 30-, 40- and 50-year-old silver fillings is running out. We have to remember that amalgam technology is more than 150 years old. At that time, people lost their teeth a lot earlier and died a lot earlier, too.

Now, however, we have a population that is over 50 years old and growing – and they want to keep their teeth feeling good and looking good. Patients are now living longer and they want and expect to keep their teeth for a lifetime.

Adhesive dentistry offers a more conservative restorative approach to conventional dentistry. Why take away healthy tooth structure when there's a viable alternative? Why not attempt to save the good and just replace the bad? Direct composites

and laboratory composite resin systems are valuable and worthwhile options to preserve tooth structure and long-term dental health. After all, preserving a patient's natural tooth, whenever possible, is always in his or her best interest.

It has been our experience that providing multiple, large interproximal posterior composites directly can be difficult to achieve on a consistent basis in the oral environment, especially when replacing amalgams. Why? Because they take a lot of chair time. Amalgams require bulk. That's why we were taught the block type preparation to provide the necessary bulk for strength.

Furthermore, because amalgams do not bond, we were taught to create undercuts and "extension for prevention." As mercury contracts and expands with cold and hot temperature changes over time, cracks form in the glasslike nature of teeth.

Most of the time, these large preps are difficult to restore with direct composite. There are isolation and contamination issues, and it is difficult to replicate nature in the mouth in a timely, cost-effective and predictable manner for every case, every time. In addition, curing in layers makes for a long appointment and increases the possibility of contamination. It is uncomfortable for patients to keep their mouths open for the prolonged amount of time necessary.

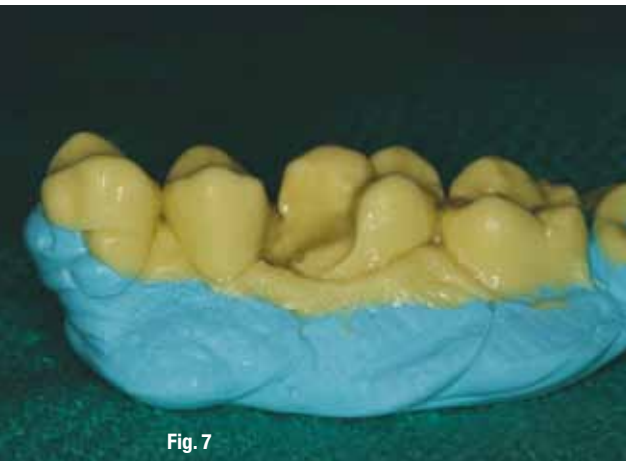
**Fig. 1\_#3 pre-op, palatal view.**

(Photos/Provided by Dr. Lorin Berland and Dr. Sarah Kong)

**Fig. 2\_#3 pre-op, buccal view.**

**Fig. 3\_Decay removed and lining placed.**





Often, large direct posterior composite resins yield unsatisfactory results in terms of esthetics, and especially long-term function, due to curing and contamination issues.

However, when we do same day inlay/onlays out of the mouth and in the laboratory, we find that multiple posterior restorations are easier, stronger and more anatomically correct. Because they are processed at the same time, they can be even more time efficient than using a CAD/CAM system and reduce tooth movement during the transitional phase that can result in altered contact or occlusion.

Not having to deal with provisional restorations absolutely eliminates those untimely emergencies when temporaries break or come off. Those costly, non-productive, uncomfortable and unhappy second appointments can also be avoided, saving everyone time and money. In addition, without concerns about retention of temporaries, preparation can be even more conservative.

### Case No. 1

In this case, the patient came to our office on an emergency basis with a broken tooth on the upper right molar. It was no surprise that the tooth had a previously placed MO amalgam with recurrent decay that caused the mesiobuccal cusp to fracture off completely (Figs. 1, 2). Often, teeth that have had old amalgam fillings tend to break due to cracks caused

by the expansion and contraction of the metal alloy in the tooth's glasslike substance.

In addition, caries detectors were non-existent when the bulk of amalgam restorations were placed so many teeth have recurrent decay under the old amalgam fillings.

After thorough clinical and radiographic examinations were performed, it was determined with the patient's input that a same-day onlay would be the most prudent option for this tooth. This way, he would be receiving the maximum amount of care in the least amount of time.

### *The procedure*

After placing topical anesthetic, articaine HCl 4 percent with 1:1,00,000 epinephrine was administered to achieve profound anesthesia. Next, a nitrous oxide nasal mask was placed to decrease the patient's exposure to mercury aerosol while the amalgam was being removed. In this case, because the patient opted not to use nitrous oxide, pure oxygen was administered through the nasal mask.

We continued by isolating tooth #3 with a rubber dam. This step was essential to reduce the amount of amalgam ingested by the patient. It also offers isolation, higher visibility and better dentistry for our patients. If doing quadrant dentistry, I like to use the split-dam technique, which stretches to include several adjacent teeth in a quadrant. A FenderWedge

**Fig. 4\_**Prepped tooth, palatal view.  
**Fig. 5\_**Silicone model.  
**Fig. 6\_**Sectioned model.  
**Fig. 7\_**Silicone model, buccal view.  
**Fig. 8\_**Tooth ready to bond.  
**Fig. 9\_**Expasyl placed interproximally prior to seat.