



2013 Volume 4

The quarterly newsletter of
"D&S Dental Laboratory, Inc.

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INCISAL EDGE

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PLEASE NOTE
D&S Dental Laboratory
Will be Closed the
Following Dates in
2013-2014

November 28 & 29 –
Thanksgiving
December 25 –
Christmas (Observed)
January 1, 2014 –
New Year's Day

DO YOU KNOW WHAT'S IN YOUR ZIRCONIA?

Over the past four years, the rise in popularity of the monolithic Zirconia restoration has been staggering. Since the introduction of our first ZR crown in the spring of 2010, the monolithic Zirconia crown numbers we've produced have doubled every year. At the same time, the numbers of Porcelain Fused to Metal and Full Cast Crowns have decreased. When our porcelain veneered Zirconia crowns are factored in, today nearly 60% of all crowns fabricated in our laboratory contain Zirconia.

The advantages of Zirconia are many; it's strong, it doesn't conduct heat, it's milled resulting in a more accurate fit, it's extremely esthetic when veneered with porcelain...in a nutshell, it is the most flexible material we have to work with on the fixed side of the laboratory. However, Zirconia is a man-made material, and the properties can vary widely depending on the manufacturer as well as how the lab treats the material.

Like "Alloy," "Zirconia" is a general term. When you prescribe a PFM or a Full Cast Crown, I'm sure you always make sure to know what type of alloy you're getting, or at least what is the classification of the alloy. When you prescribe a Zirconia crown, do you make sure to find out what type of Zirconia the laboratory is using? Quality Zirconia, when properly sintered is dense, pore free, and defect free resulting in the strength we've come to appreciate from our Zirconia restorations. In addition, there are no defects, such as irregular grain sizes. If any of these defects are present, the effects can be reduced strength, poor esthetics, or irregular fit. That's why at D&S we only work with reputable companies that warrant every batch of Zirconia blocks we receive. 3M ESPE, the industry leader in material science, and Jensen Dental, 3M's partner in material distribution, supply all of our Zirconia for our ZR, ZR Plus, ZR



Micro, ZR Fusion, and Lava crowns. Every batch of material is guaranteed, and every block is barcoded after it passes their quality control inspections. When our restorations are milled, we have a record of exactly which block was used and which batch it came from. Finally, we disclose the Zirconia used in the restoration to you on your invoice with each case. This disclosure is required in several states (including Minnesota), and will likely be required on more states in the near future.

In addition to the type of Zirconia being used, the way the laboratory handles the material can also have an impact on your final product. Many laboratories like to "play" with the sintering process to alter the look of the finished crown. Sintering at a higher temperature than recommended can lead to a more translucent appearance. However, it also leads to a reduction in strength, and the increased potential for long-term degradation of the material. The material manufacturers recommend the sintering temps and cycles to preserve the integrity of the material, and any alteration in the process changes the final properties.

In general, Zirconia restorations are excellent for all of the reasons we brought up earlier. However, like anything else, there are good and not-so-good versions out there. Make sure you know what you're getting, and how your laboratory made it for you. As long as a quality material is handled properly by the laboratory, the resulting restoration should provide the strength and esthetics unmatched by any other restoration on the market.



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PRODUCT SPOTLIGHT

ZR MICRO™ CROWN & BRIDGE

The new ZR Micro™ from D&S Dental provides the high strength of full-contour Zirconia (ZR & ZR Plus) with higher esthetic results achieved by veneering porcelain on the facial. This crown is designed as a full-contour Zirconia, and then digitally “cut-back.” The facial porcelain allows for more accurate shade match, higher translucency, and better esthetic results than monolithic Zirconia restorations. ZR Micro is also an excellent restoration for bruxers/grinders.

The ZR Micro can be prepped with minimal clearance, except on the Incisal or Facial where 1-1.5mm is needed to build porcelain. It is also indicated for bridges, and can even be combined with other Zirconia restorations together in one multi-unit restoration. While ZR Micro is more esthetic than monolithic Zirconia, it does not provide the esthetic results of a fully veneered Lava Crown. However, with the ZR Micro, priced at \$170, included in our ceramic lineup, we now have a Zirconia option to meet any indication. For more information on our ZR family of crowns, and all of our restoration options, visit www.dnsdental.com, or download our “D&S Dental Lab App” for free at iTunes or Google Play.



Lava™ - \$193

Ideal for the most demanding esthetic cases



ZR Micro™ - \$170

Anterior/Posterior crowns and bridges requiring high strength and esthetics



ZR Plus™ - \$139

Posterior crowns and bridges requiring high strength, even with minimal clearance



RESULTS FROM D&S LEARN ON THE LINKS EVENT

This summer's 4th annual “Learn on the Links” program at Trappers Turn in Wisconsin Dells on August 23 was another outstanding day. Nearly 70 attendees came out for the CE program, “The Evolution of Materials & the Digital Workflow,” co-sponsored by 3M ESPE. Jim Buchanan, National Director of Accounts from 3M ESPE, joined Travis Zick, Steve Daggett, and Jed Miller from D&S in presenting an informative program on the meaning of digital dentistry, equipment and materials associated with going digital, and the future of the office/lab digital relationship. After the presentation and lunch, 60 golfers took to the course on a perfect afternoon. The host site once again provided the ideal location for the event with their spacious clubhouse and championship golf courses. Thank you to everyone who spent their day with us, and congratulations to the skilled golfers below who won hole prizes. We look forward to the 5th annual event next summer!

Teams were given the option of playing their own shots or scrambling for a low team score. Of those who played the scramble, an impressive low score of 57 (-15) was turned in by Dr. Dan Mullenbach, Dr. Craig Forsberg, and Dr. Thomas Brown!

Individual Hole Prize Events Went to:

Lake Course #4 – Closest to the Pin
Lake Course #7 – Long Drive
Lake Course #9 – Longest Putt
Canyon Course #7 – Closest to the Pin
Canyon Course #9 – Longest Putt

Dr. Greg Edwards
Dr. Mike Henrickson
Dr. Brad Bjorklund
Dr. Jim Van Gemert
Dr. Tom Hughes



ACHIEVING IDEAL ESTHETICS AND FUNCTION WITH PATIENT-SPECIFIC ABUTMENTS

COURSE DESCRIPTION

In the early days of implant dentistry, the focus was on osseointegration of the implant to the bone structure. As implant therapy continues to evolve and increase, it is now recognized that implants must be placed and restored with the shape and position of the final restoration in mind. In other words, thinking from the tooth down and not from the implant up is necessary for achieving the best functional and esthetic outcomes possible. As a trained Prosthodontist and having worked as a Laboratory Technician, Dr. Osorio realized that the restorative components available in the market place, although functional, were not ideal for achieving optimal esthetic and biological results. Many components that claimed to make treatment "simple" disregarded esthetic and biological considerations. With this in mind he began to work with the help of a team of engineers to create a computerized design process by which the best possible patient-specific restorative components could be fabricated. This program will present on how this process has helped to revise the standards of success in implant dentistry to not only consider osseointegration, but also esthetics and biologically sound outcomes. These outcomes become more and more predictable when using implants and abutments designed with sound biological and biomechanical principles in mind and confirmation of this will be presented with extensive clinical and radiographic evidence.

At the completion of this course, participants will be able to:

- Recognize the options available for the replacement of both a single tooth or multiple teeth predictably and esthetically
- Simplify implant treatment protocols while providing optimal esthetic results and increasing profitability
- Integrate patient-specific abutments into any implant protocol
- Improve the clinical outcome of even the most complicated implant cases



FEATURED SPEAKER



Dr. Julian Osorio, originally from Colombia, South America, received his DMD in 1979. He completed his post-graduate training in Prosthodontics in 1983 and received a Master of Science in Dentistry in 1984 from Boston University. Currently Dr. Osorio holds a position as Assistant Clinical Professor in

the Department of Prosthodontics and Operative Dentistry at Tufts University School of Dental Medicine, where he has been on the faculty since 1984. As a partner of Watkin Osorio Dental Associates DDS, PC in Boston and Parsi Osorio, PLLC in Exeter, NH he is devoted to Prosthodontics, Restorative and Implant Dentistry. He also pioneered the concept of ATLANTIS™, patient-specific abutments utilizing the latest computer technology. Dr. Osorio gives numerous lectures around the world. He is an active member of the Academy of Osseointegration, International Congress of Oral Implantologists, American Dental Association, and the Massachusetts Dental Society and is the Past President of the Massachusetts section of the American College of Prosthodontics. He also currently serves in the Dean's Advisory Board at Boston University Goldman School of Dental Medicine.

The participation of this speaker has been made possible through support from DENTSPLY Implants.

AGENDA

Date Thursday, November 7, 2013

Time 6:00 - 6:30 pm Registration and dinner
6:30 - 8:30 pm Lecture presentation

Location **Fluno Center**
601 University Avenue, Madison, WI 53715
608-441-7117

Tuition Complimentary
No refunds will be issued as this is a tuition-free course.

CE credits 2 hours

CE information: DENTSPLY is an ADA CERP Recognized Provider. ADA CERP is a service of the American Dental Association to assist dental professionals in identifying quality providers of continuing dental education. ADA CERP does not approve or endorse individual courses or instructors, nor does it imply acceptance of credit hours by boards of dentistry. DENTSPLY designates this activity for 2 continuing education credits.

Your local DENTSPLY Implants representative:
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REGISTRATION/INFORMATION

To register or request more information on this program, contact Maria Ardizzoni:
Email: maria.ardizzoni@dentsply.com • Phone: 800-531-3481 x66101

If registering by email, please reference the program date and location and also include your full name and contact information.

Please respond as soon as possible as space is limited.



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D&S DENTAL LAB CDT TRAINS INTERNATIONAL TECHS FOR 3M

Earlier this summer, Jed Miller, one of our Certified Dental Technicians travelled to Kobe Dental Laboratory in the heart of Mexico City, Mexico, at the request of 3M/ESPE. The purpose of Jed's trip focused on improving techniques the technicians at Kobe use to characterize their full-contour Lava Plus restorations as an International Lava Milling Center. Lava Plus is the material we mill each day at D&S for our ZR Plus, ZR Micro, and Lava crowns.

Similar to D&S, Kobe Dental Laboratory is an Authorized 3M/ESPE Lava milling center. While Kobe Dental Laboratory has been milling the first generation Lava for several years, their production centered on frameworks used for porcelain veneered crowns rather than full-contour Zirconia. The past months have brought an increase in Lava Plus full contour restorations and a need for experience with 3M/ESPE's quality Zirconia.

At D&S we have been milling Lava Plus for almost two years. Our production history in full contour Zirconia dates back over four

years and six variations of the popular material. Each generation has brought welcomed improvements in design, strength, and color. Jed has been involved with developing each new Zirconia and its production in our laboratory while helping to oversee the design and milling of our full-contour Zirconia. D&S beta tested the initial versions of Lava Plus, and from those tests, our team developed the ZR Plus we are proud to provide doctors today. Jed's personal expertise with Zirconia also involves the pre-sintered staining and final characterization of ZR and ZR Plus, and, in addition to his trip to Mexico, he is routinely asked by 3M ESPE and Jensen Dental to demonstrate staining of Zirconia for other laboratories throughout the United States. D&S is proud to continue our role as a leader in the industry when it comes to the development and integration of products, materials, and technology. Each day, our team at D&S applies our system of continuous improvement to our ZR Plus crowns as well as all of our other quality restorations.

TECHNICIAN'S TIP OF THE MONTH IMPLANTS

Send full arch impressions whenever possible for an implant case. Screw loosening often results from occlusal forces on that implant crown. With a full arch impression, the lab has sufficient data to adequately design occlusion. With a quadrant impression, only 50-70% of occlusal data is available and the rest must be filled in with guesswork.