D&S DENTAL LABORATORY, INC.

2013 Volume 3

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

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INCISAL EDGE

INSIDE THIS ISSUE

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

September 2 – *Labor Day*
November 28 & 29 – *Thanksgiving*
December 25 – *Christmas (Observed)*

BASIC TROUBLESHOOTING FOR CROWN AND BRIDGE CASES

At D&S Dental Laboratory, our technicians see as many crown cases in a month as most doctors will in many years practicing dentistry. The knowledge we've gained through experience can be a tremendous resource to you when trying to determine case planning, the type of restoration or appliance to prescribe, which components or parts are needed/best suited for the case, or what type of material might work best. Along the way, our technicians have also become very adept at troubleshooting issues that come up from time to time. Certainly, issues will come up, but if they become consistent in one area or another we want to be a resource to help find the cause and the solution. Below are some of the more common issues our technicians see and the typical causes for them.

CONTACTS OR OCCLUSION

Contact and occlusion issues are typically related to the temporary. In the two weeks, or so, that the patient has that temporary in the mouth his/her teeth will move if allowed or caused to do so by the temporary. Temps that are too tight will push the adjacent teeth causing open contacts when the final restoration is seated, while temps that are not tight enough will allow the adjacent teeth to move toward the prep causing the final restoration to be extremely tight. The same is true with occlusion if the occlusion of the temp is off. Occlusion issues can also be related to the impression, and not capturing enough adjacent teeth to help our technicians set the proper occlusion.

FIT OR OPEN/SHORT MARGINS

Consistently poor fitting restorations and/or open margins generally trace back to impression issues and a lack of clear detail. This can be caused by expired impression material, material that is subject to high or low temperatures in storage, blood or saliva around the prep, lack of retraction, exceeding the allowed working time with the impression material used, insufficient amount of light body material used around the marginal area, improper tray used, tooth contact with the tray, tray movement, etc. Typically, one of the biggest culprits is quick set impression material simply because of the lack of working time. Also, a temperature difference of just a few degrees in the office can have a significant impact on the set-up time of the quick set materials. Another regular culprit is the use of non-rigid triple trays that flex and distort the impression. 3M ESPE has an excellent resource manual, *Trouble Shooting Guide to Making Better Impressions,* which can be downloaded from our website, www.dnsdental.com, by going to the Informational Handouts page under the Resources tab.

Another excellent option to eliminate fit and marginal issues is the use of an intra-oral digital impression system such as the Chairside Oral Scanner (or new TruDefinition Scanner) from 3M or the Itero scanner from Cadent. Intra-oral scanners nearly eliminate remakes due to fit regardless of the type of restoration, and if you prefer ceramic restoration such as the ZR+ or Lava, these scans tend to eliminate most adjusting as well. In fact, lab fabricated remakes decrease from a national average of 3.5% to less than .5% when digital impressions are taken. That's an 85% decrease! The main reason is simply that the digital impression removes any guess work by allowing the doctor and the technician to review that impression

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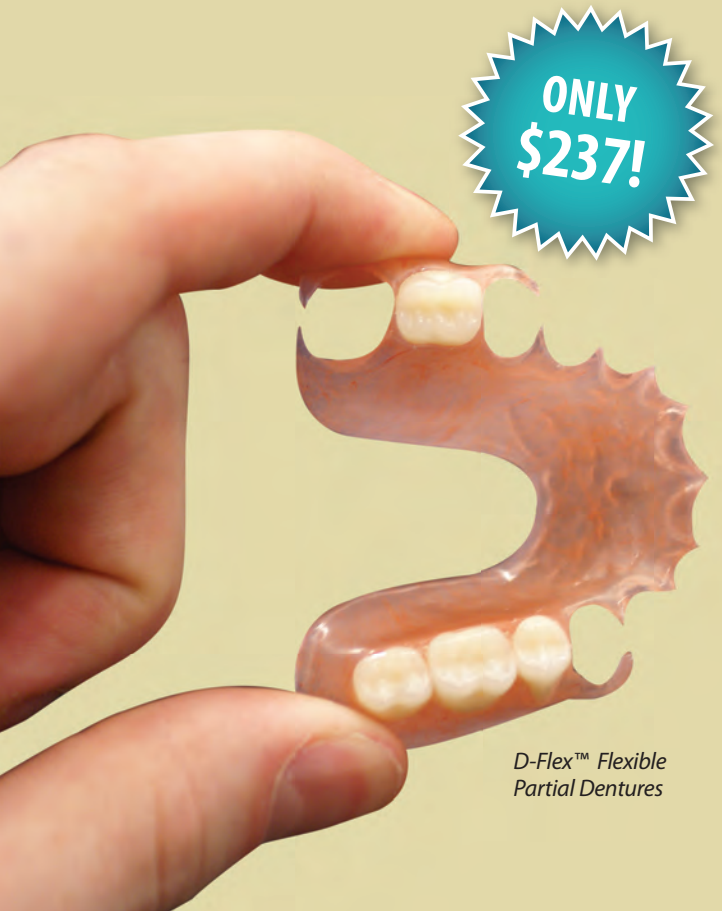
PRODUCT SPOTLIGHT

D-FLEX™ FLEXIBLE PARTIAL DENTURES

The new D-Flex™ from D&S Dental Laboratory is finally a flexible partial denture that patients, dentists, and lab technicians can all appreciate. D-Flex™ flexible partials are fabricated using the most advanced thermoplastic materials in the industry. The result is a strong but lightweight denture that is thin and translucent, natural looking, and comfortable. In addition, unlike other flexible partial dentures on the market, the D-Flex™ can be repaired and added to if necessary!

The material itself comes in five different shades, will not absorb moisture, and it is stain and odor resistant. Clear clasps are also available to further mask the presence of the denture for the patient. Our D-Flex™ complete partial comes at a set price of $237, which includes your choice of teeth. For more information on the new D-Flex™, visit www.dnsdental.com.



D-Flex™ Flexible Partial Dentures

2013 MISSION OF MERCY REVIEW

The 5th Wisconsin Mission of Mercy was held in Lake Geneva on June 28 and 29. Over 1,200 volunteers, including 228 DDSs generously donated their time and skills to help make the 5th M.O.M. hosted by the WDA Foundation another huge success.

The goal of Mission of Mercy events held around the country is to bring dental care to local residents who otherwise would be unable to receive treatment. It's safe to say this year's Wisconsin M.O.M. again exceeded all expectations by providing approximately $1.178 million in care over 2,072 patient visits.

On the lab side, the amount and quality of work done by the talented technicians who came from labs around the state was incredible. Over two days, the volunteer technicians produced 100 treatment partials (fabricated from start to finish), plus multiple repairs, additions, and adjustments. All this was accomplished by setting up a makeshift laboratory on folding tables in the Lake Geneva Badger High School gymnasium! Once again, the materials used for the lab work were generously donated by Dentsply Prosthetics and Zahn Dental Supply. Our laboratory was privileged to be the lead lab for the second year in a row, and it was a tremendously rewarding experience.

Below is a photo of our Saturday lab team. This group of tireless, hardworking individuals (along with a few from Friday's crew who missed the picture), provided a lot of very happy people with rejuvenated smiles. If you don't see a technician from your lab, call them and encourage them to send someone to next year's M.O.M. in Green Bay!

D&S ADDS DAILY DELIVERY ROUTE TO MILWAUKEE AREA

We are very pleased to announce that our laboratory recently added a once-per-day pick-up and delivery route into the Milwaukee area. This service will make it easier and more convenient for offices in the area to get cases to and from our laboratory. The new route will serve offices within 2 miles to the north or south of Interstate 94 from Delafield all the way to downtown Milwaukee. To request a pick-up, simply call our front office at 1-800-236-3859 a day in advance to get on the driver's schedule for the next morning. If you need shipping supplies to get started with us, simply call or email, office@dnsdental.com, and our driver will deliver them right to your door. We look forward to serving your needs!

LEARN ON THE LINKS AT TRAPPERS TURN GOLF CLUB

WHERE: **TRAPPERS TURN GOLF CLUB**
652 Trappers Turn Drive
Wisconsin Dells, WI 53965

WHEN: **FRIDAY, AUGUST 23, 2013**
8:00–8:30 a.m. ***Registration and Breakfast***
8:30–11:30 a.m. ***Table Clinics***
11:30 a.m.–12:15 p.m. ***Lunch***
12:30 p.m. ***Shotgun Start Golf***

Today's Trends in Dentistry–The Evolution of Materials and The Digital Workflow

Jim Buchanan

Our 2013 Learn on the Links program returns to beautiful Trappers Turn Golf Club in Wisconsin Dells. Last summer, we discussed the multitude of material options available for fixed restorations in today's market along with the pros and cons of each material. This year we will take a larger-scale look at the digital world that we live in. In particular we will discuss where we've been, where we are today, and where we will be in the future when it comes to materials, digital technology, and the dental office/laboratory partnership.

This year's presentation will feature Jim Buchanan, Director of National Accounts for 3M ESPE, who was responsible for the 2002 launch of the Lava Crown & Bridge business in the United States, among other achievements.

Finish the day with an afternoon of golf at Trappers Turn Golf Club, one of Wisconsin's top golf courses, designed by Andy North. A continental breakfast and lunch will be provided.

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in 3D and zoom in on the margins to make sure all necessary detail is captured. This is a more costly solution, but these systems are becoming more affordable every day. The most important feature to check on when looking at a system is to make sure it is "open", which means your laboratory will have no restrictions on what type of equipment and systems are needed to receive, design, and fabricate your restoration from that file.

SHADES

Do your shades consistently come back slightly dark? If this is the case, one common issue we've discovered over the years is the use of old, slightly faded shade guides. If your restorations are consistently a shade or two darker than what you wanted, check to make sure the shade guide you're using hasn't faded over the years.

PORCELAIN FRACTURES

Porcelain fractures are far less common today than they were just a few years ago. At D&S, and labs like ours, all fixed restorations are designed from the "top down" utilizing CAD design software. Our technicians design your crown to full-contour, and then the software assists in building the substructure beneath to ensure proper porcelain support throughout. Nationally, porcelain fractures occur in about 1.25% of all porcelain veneered crowns, while at D&S our percentage is less than half that. The majority of porcelain fractures occur due to a lack of proper clearance. Any crown that is veneered with porcelain needs to have a minimum of 1.5mm of occlusal clearance, and ideally 2mm. Without sufficient clearance, the chances of a porcelain fracture increase dramatically. If we start with limited clearance, and then adjusting has to be done at seating, that further reduces the thickness of the porcelain, and the chances will also rise dramatically. Speaking of adjusting, be sure to use air and water when adjusting porcelain, or the heat produced may cause micro fractures to occur which will likely lead to failure down the road. Similarly, the strength of a monolithic e.max crown is greatly reduced when it is less than 1.5mm thick, which could lead to a fracture. Our technicians are instructed to call on cases with limited clearance or other prep issues that may cause a failure in order to discuss alternative solutions. ZR and ZR+ crowns are both excellent options for situations where there is an increased likelihood of fracture due to their monolithic nature and strength. If esthetics is a major concern, we can also produce a ZR+ occlusal or a ZR+ with facial porcelain.

CERAMIC CROWNS COMING LOOSE

This is a relatively new issue that has come up in the past couple years due to all of the Zirconia crowns being seated. If you see ceramic crowns come off, make sure to clean the inside of the restoration after try-in (alcohol will be sufficient), but do not use phosphoric acid. This will remove any phospholipids that can keep the cement from adequately bonding to the restoration. Also, clean the tooth surface with pumice slurry and water to remove any fit checker material that could contaminate the bond. Finally, in situations with non-retentive preps, limited preps, or veneers, bonding may be necessary.

Naturally, some of these issues will occur, but they should be infrequent. If they are occurring with regularity, call one of our skilled technicians to discuss the possibilities above, and to work toward finding a solution. It's our goal to be a partner in your practice, and to be your main resource whenever questions come up. Our technicians have seen a lot over the past 41 years D&S has been in business, and we're happy to share that knowledge to help create successful outcomes and the highest quality patient care possible.

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MEDICAL DEVICE EXCISE TAX REVISITED

In previous newsletters, we've included articles outlining the impact of the new Medical Device Excise Tax that took effect January 1. However, due to continued questions about the tax itself we felt it would be worthwhile to revisit the key aspects of the MDT, and what it means if you see it on a lab invoice.

MEDICAL DEVICE EXCISE TAX DEFINED

As part of the Health Care and Education Reconciliation Act signed into law in May 2010, the Medical Device Excise Tax officially took effect on January 1, 2013. The MDT is a 2.3% Federal Excise tax on all "taxable medical devices," which are devices that require an FDA registration.

In general, all materials used in the manufacturing of dental appliances and restorations are subject to this tax because the materials themselves must be FDA approved. However, finished appliances and restorations are NOT subject to FDA registration, and, therefore, are not taxable. Simply, this means that the materials the lab purchases to make your crown are taxable, and we've seen the effects of the tax on our supply costs, but the final restoration itself is not taxable to you.

There are few notable exceptions to the rule. First, TMJ appliances (such as the Tap3 produced by D&S) do require an FDA 510(k) registration, so they are subject to the tax. Second, implant components and abutments require FDA 510(k) registration. So, if you purchase them direct from the manufacturer, or if your lab mills their own parts, you will see the tax. Finally, ALL imported dental restorations are subject to FDA oversight, so they too are subject to the tax. Therefore, if a lab is importing restorations from outside the United States, those are taxable.

What does this mean for you? If your lab is manufacturing their own restorations domestically, you should not see a tax on any product other than TMJ appliances, or possibly implant parts. If you see the tax on an invoice for a crown or denture, for example, that is a clue that the restoration was likely imported whether it was disclosed to you or not.

The Dental Device Classification Code list and the Dental Device Product Code list showing which materials and supplies are included in the MDT are both available on the FDA's website (www.fda.gov/medicaldevices).