Florida’s Outlook On the Dental Laboratory Profession
2nd Quarter 2017
www.fdla.net

focus

THE STATE OF
Digital Dentistry

REGISTRATION INFORMATION
included on page 31 inside.
Celtra® Press

Developed to make a difference

The benefits of the Celtra® Press system for your dental laboratory:

• A unique combination of excellent esthetics and high strength > 500 MPa (natural opalescence and translucency, stable margins)

• Excellent shade fidelity according to the VITA shade system and a surprising chameleon effect (easy shade adaptation to the surrounding teeth)

• Simple and fast processing (minimal reaction layer, easy to polish, a simplified shade system reduces inventory costs)

celtra-dentsplysirona.com
President’s Message

Something For Everyone

It's almost my favorite time of the year, well at least my favorite part as a dental laboratory technician and owner. The Southern States Symposium & Expo is about a month away. The theme this year is Analog vs. Digital, with courses covering everything from traditional techniques to the latest innovations.

I always look forward to the symposium and expo, not only as one of the few times of the year when I can catch up with my peers in a relaxed environment, but also as an event where I can find out what's new on the market, discover the latest techniques and learn about the newest materials. It's also a great place for some no-holds-barred discussions about the issues affecting our industry. One of the workshops where you'll be able to do just that is the digital dentistry panel featuring Al Fillastre, III, CDT; Lucas Lammott; Barbara Warner Wojdan, CDT, AAACD and Thomas Zaleske, AS.

Is Digital the Answer to our Industry Movement?

Our industry is moving extremely fast towards digital solutions—from simple crown and bridge cases to over complex implant reconstructions to the latest full denture modules. For almost every dental laboratory product, we have a digital solution now. Is this movement the right way to solve every laboratory case on our bench? Or are we better off utilizing digital technology and combining it with traditional workflows? Or should we be using only traditional techniques for high end and high level restorations?

Because of all the great courses, workshops, panels and hands-on opportunities, the Southern States Symposium & Expo is a great place to obtain your state mandated continuing education. Remember, according to the Florida Board of Dentistry:

1. Registered Dental Laboratories are required to renew their license no later than midnight, Eastern Time, on February 28, 2018.

2. The process to renew a license can take up to three weeks.

3. Failure to renew an active license by the expiration date will result in the license being placed in delinquent status. Failure by a delinquent license to renew before September 1, of the even numbered years renders the license null and void without any further action by the board or the department.

By getting your continuing education at the Southern States Symposium & Expo, you’ll have one less thing to worry about during renewal time. Be sure to flip through the symposium and expo brochure included in this issue of focus and share it with other dental technicians, laboratory owners and dentists who may not be FDLA members. There really is something there for everyone.

I’ll see you in a few weeks at the Southern States Symposium & Expo.

By Fernando Deleon
FDLA president

FDLA Mission
Serving Florida’s dental technology professionals as a valued part of the dental team enhancing oral health care.

FDLA Vision
Advancing the individual and collective success of Florida’s dental technology professionals in a changing environment.

Values Statement
FDLA’s board of directors and professional staff are guided by these principles:
• Integrity
• Leadership
• Recognition
• Safety
• Acceptance
• Innovation

2nd Quarter 2017 • focus • 3
Contents

6 Beware The Stealth Threat To Business Continuity
By Sunita Nigam

8 Denture Trends

10 Sintering Tips for Zirconia
By Alexander Wünsche

12 The State of Digital Dentistry
An Interview With Bob Cohen, CDT

16 Zirconia Esthetics Without Sacrificing High Strength
By Patrick Coon, CDT, TE

22 The Hub
FDLA news and recent happenings.

24 The Down Low on Digital Designers

28 Zero-In
FDLA calendar and classifieds.

30 Focal Point
Dr. Steven Fuqua, DDS, MS

31 Southern States Symposium & Expo Registration Brochure

Advertisers Directory

The Americana Group.......................... page 25
www.usdentalmilling.com

The Argen Corporation........................ page 5
www.argen.com

Atlanta Dental Supply........................ Inside Back Cover
www.atlantadental.com

Aurident, Inc................................. Outside Back Cover
www.aurident.com

DENTSPLY Prosthetics......................... Inside Front Cover
www.dentsplyprosthetics.com

Heraeus Kulzer Scrap Refining................ page 7
http://mydental360.com/Refining

Ivoclar Vivadent, Inc........................ pages 26 and 27
www.ivoclarrividental.com

Medentika........................................ page 9
www.medentika.us

Quintessence Publishing Company........ page 15
www.quintpub.com

Like us on Facebook at facebook.com/floridadentallaboratoryassociation
ARGEN® Mill
Precision Milled Gold Crowns

From ARGEN®

ArgenMill Au58  58% Gold
Au 58%  Pd 3.25%  Ag 27%  Cu 10.5%

ArgenMill Au2  2% Gold
Au 2%  Pd 32.7%  Ag 34.5%  In 28%

- Extremely accurate
- Improved fit and consistency over wax/cast
- Reduce inventory of costly metals
- Minimal finishing required
- Beautiful Results
- Quick turnaround time
- Available up to 3 unit bridges

Order Today!

One day to make. One day to ship!
Upload your digital design files to www.argen.com

MADE IN THE USA

(800) 255-5524
www.argen.com
But there’s something threatening your business continuity at this very moment that you hadn’t even thought of: It’s all about the money.

The top ten threats to business continuity felt by companies around the world this year have one thing in common—they’re all immediate, sudden, unexpected and dramatic.

Cyber-attack is right there at the top of the list, closely followed by data breach and loss of connectivity or telephones. But what about the threat to business continuity that can creep up on companies almost unnoticed, but can be just as deadly by stealth—cashflow.

Money is the oil that lubricates the machinery of commerce. And as we all know, without lubrication will grind to a standstill, and may be impossible to restart.

The trouble is that unless you pay careful attention to it, cashflow can deteriorate just a little at a time, and reserves can dwindle to dangerous levels. When that happens, it may be too late to take remedial action. The secret to avoiding the cash-flow conundrum is to avoid taking your eye off of it.

1. Check regularly—daily doesn’t hurt—to see that everything is in order.

2. Check that you’re being paid when you should be, and that clients aren’t using you as a source of free credit by their failure to settle your invoices promptly. Be good at money management by refusing to be embarrassed about talking about money you’re owed. The only ones who should be embarrassed about it are the non-payers.

3. Invoice quickly. If you leave invoice-writing until the month end, you could be giving clients an extra 30 days’ credit for no reason at all.

4. Don’t keep too much stock in the business. Experience will tell you what you need. Try to see the material stacked on shelves as piles of banknotes; that will focus the mind quite effectively.

5. Avoid the overdraft. It’s a very expensive way of buying extra money.

6. Regularly review your spending on small things as well as big ticket items. You may be surprised to find that you’re spending far too much on incidental expenses without realizing it—very often the case with companies with fewer than ten employees. The problem there is that being busy making sure everyone, including him or her, is looking after clients means the boss might not be looking after the business. This is when being in expense management can take a back seat. Disciplined use of money management apps can help firms get on top of that quickly and easily.

The bottom line? Remember that you can’t have a successful business with an ailing cashflow. Factor that in when making every business decision.

About the Author:
Sunita Nigam is a cofounder of Solo Expenses, brought to you by the founders of Expense on Demand, the specialist mid-market expense management system used by more than 70 countries since 2003. www.soloexpenses.com
Article Source: EzineArticles.com
NEW Refining AutoShip Program

Your key to HIGHER RETURNS
The new AutoShip Program streamlines the scrap refining process by automatically sending shipping materials right to your doorstep.

3 Steps To Higher Profits
1. Choose your container
2. Choose your monthly frequency
3. Provide your contact information

We handle the rest!

Benefits:
1. No cost to you – we cover all materials and shipping costs
2. Higher Profits – no middleman, low 10% refining fee
3. Streamlined Process – 7-10 days
4. Full assay report
5. Online Account Management
6. Asset Tracking

Get An Extra 5% for your scrap
Include this certificate with your next shipment and receive an additional 5% for your scrap.

Get Started Today: www.mydental360.com/refining

© 2016 Heraeus Kulzer GmbH. All Rights Reserved. “Heraeus” is a registered trademark of Heraeus Holding GmbH used under a temporary license granted by Heraeus Holding GmbH. Neither Heraeus Holding GmbH nor any of its affiliates is responsible for the manufacturing of the product(s). Distributed by: Heraeus Kulzer, LLC. 4315 S. Lafayette Blvd., South Bend, IN 46614. Phone: (800) 431-1785 Fax: (800) 271-5211 www.heraeusdentalusa.com
61% of U.S. labs provide dentures.

45.7% of dentures are fabricated with compression packed acrylic.

2.3% of dentures are fabricated with light-cured acrylic.

16.9% of full dentures are implant supported.

9.3% of partial dentures are implant supported.

79% of labs produce dentures digitally.

3.6% of labs report they use digital technology to produce more than 20% of their denture cases.

Full Dentures And Esthetics:

- 28.4% Standard Esthetics
- 22.7% Premium
- 14.2% Economy
- 8.9% Unknown

What Type of Dentures Are Manufactured In The U.S.?

- 49.9% Full Dentures
- 20.5% Metal Partial Dentures
- 18.3% Flexible Partial Dentures
- 11.3% Unknown

Source: 2016 NADL Business and Materials Survey
Seamless integration with your full arch Digital Workflow!

Medentika has digital libraries compatible with:

- 3shape
- exocad
- dental wings
- Dentsply Sirona

FREE NEXT-DAY SHIPPING* FOR ORDERS OVER $500

*UPS Next Day Air Saver (3pm). Other shipping methods will be charged at the standard rate.
PRE-SINTER TREATMENT

Every zirconia restoration must be treated after milling and prior to sintering. The connectors must be smoothed out after removing from the blank and the pre-sintering coloring must be done in the case where non-persuaded or multi-layered blanks were used.

At Zahntechnique, we smooth out connectors and then in the afternoon, before the restorations are sintered, we do the final contouring on full contour restorations. This is necessary because even the best milling machine is not able to mill between the inter-proximal areas fine enough to allow for a natural esthetic look. True, we are very close to a final look, but still a bit of touch up is still necessary.

For that touch up, I use thin diamond discs and diamond burs to shape interproximal and line angles to the final shape and contour. My secret weapon is a very thin hard rubber disc to smooth out these areas. For a rough contouring, I use zirconia burs. These burs are extremely sharp and, because of their material specs, have a very long life. As the final touch up, I smooth out the whole surface with rubber wheels. To achieve a natural look for high-end results, manual instruments are the gold standard to use. I can texturize in a very controlled manner to achieve a natural finish that includes esthetic points such as graze lines or chips.

In most of my smaller restorations, I use pre-shaded or multi-layered blanks of zirconia. This allows me to skip the pre-sintering colorization step and I end up with very consistent results. For large-span bridges, I prefer not to use any pre-shaded or multi-layered material because, with the nesting, it would be almost impossible to keep a consistent shade transition. That is because we rarely have totally even bridges and the same sized teeth.

For consistency reasons, the coloring protocol for pre-sintering colorization has to be the same for every restoration. The only differentiation is in the final colors used. I use marker colors to put into my color liquids, so I can see the difference in intensity and type of color used. I always start with the cervical area, then go to the mid-section, then move on to the incisal of the tooth, and, finally, finish up with enamel and effect colors. If gingiva color is needed to support tissue effect, I can even use different colors of pink as the last step. It is critical to dry out the colors before the restoration is put under heat in the sinter furnace as well as to use the directions in the manufactures manual. I put my restoration into the furnace for three hours at 70˚ C to dry out the color liquids before the actual sinter process starts.

10 TECH TIPS FOR WORKING WITH ZIRCONIA

1. Keep a minimum wall thickness of .5mm.
2. Connector diameter (anterior 6sqmm, posterior 9sqmm) is critical.
3. Pay close attention to the design stage so that adjustments on sintered zirconia can be avoided.
4. Touch up green state zirconia before sintering for a more natural look.
5. Ask for stump shades to evaluate what translucency factor can be used for the zirconia.
6. Zirconia cannot be etched.
7. Avoid sandblasting high translucency zirconia because that weakens it.
8. Sandblasting the higher strength zirconia does not have any effect. Instead, you should steam clean it before glazing.
9. Sinter management is crucial. Do not rush a sinter strategy.
10. Not every case is ideal for zirconia.
SINTER PROTOCOL

Every manufacturer has their own instructions to sinter the zirconia. It is extremely important that you follow the manufacturer’s instructions. If not, the final product can have micro-cracks, discolorations and breakage.

In talking to technicians during the past few years, I’ve heard technicians tell about heating up the final temperature about 100°C to 200°C over the recommendations. The result is an increase in translucency. I strongly recommend that you not do that, because the end result is a total loss of control over strength. Increased translucency equals decreased strength. The loss of strength does not happen equally, so we don’t know how durable the restoration will be at the end if you veer from the manufacturer’s directions.

ABOUT THE AUTHOR:
Alexander Wünsche is president of Zahntechnique Dental Laboratory, a premier high-end, full-service dental lab that specializes in implants and digital technology. Zahntechnique is an Amann Girrbach Live Lab, so they participate in alpha and beta tests of new materials and equipment.

THE THREE TYPES OF ZIRCONIA

LOW TRANSLUCENT ZIRCONIA
This zirconia has been available for the longest amount of time. It allows a flexural strength of 1200 MPa to 1400 MPa. Today, it’s mainly used for titanium-based abutments and frameworks for porcelain layering, especially if discolorations need to be masked.

TRANSLUCENT ZIRCONIA
This is one of the most used zirconias on the market. It has a flexural strength of 1100 MPa to 1300 MPa. We can use this zirconia for almost any kind of restoration, from single unit to full contour posterior crowns to full mouth reconstructions. This material delivers great esthetics with the added bonus of exceptional strength. The opacity is good enough to mask most discolorations, but it is still translucent enough for a natural look, if supported with the right pre-sinter color technique.

HIGH TRANSLUCENT ZIRCONIA
This one is the trendsetter in the zirconia material family, but it is also the trickiest one with which to work. Flexural strength is between 550 MPa to 800 MPa and its translucency is achieved by a cubical network build. The cubical build allows light to get through easier and, as a result, it is more translucent. The disadvantage is that the cubical build is not very positive for strength. That results in almost 50 percent loss in flexural strength. This limits its use for dental restorations.
For more than a decade, we’ve been talking about the challenges and opportunities of digital dentistry. From the eagerness of the early adopters of CAD/CAM and intra-oral scanners to those who today only grudgingly admit that digital design has some benefits, everyone can agree that there’s no going back to a purely analog dental laboratory. That means we need to constantly reevaluate where we are and what is around the bend for dental laboratories, dental practices and patients.

Recently, focus sat down with Custom Automated Prosthetics (CAP) President and Co-Founder Bob Cohen, CDT, to talk about the state of digital dentistry. Why Cohen? Because as a Certified Dental Technician who has more than 40 years of dental laboratory experience, he is one of the best guys in the industry to chat with about digital dentistry.

In 2010, Cohen launched CAP, which has grown to become a digital solutions provider to the dental industry. Today, it provides advanced digital training and support, software solutions, automated implant solutions, CAD/CAM equipment and custom dental parts and proprietary digital software solutions.

With that kind of experience in mind, read on to find out Cohen’s take on the state of digital dentistry.

**Walk us through the state of digital dentistry today.**

Let’s first separate dentists from laboratories and better define digital dentistry. For the purpose of this interview, let’s agree that digital dentistry includes digital processes that are directly related to patient care. That said, I will leave out digital records, digital X-rays and other ancillary digital software and hardware solutions.

Looking at the laboratory market, the vast majority of medium and large labs have adapted to digital manufacturing. Meaning they have viable scanners, mills and possibly 3D printers. This group generally has well-trained digital technical staff for CAD and CAM operations. Looking at the smaller labs, many have not yet embraced scanning and/or milling and are outsourcing moderate amounts of work.
Currently, we are seeing third and fourth generation mills and scanners from leading manufacturers. Many of these latest generation products are faster, more accurate and less expensive. CAD/CAM is now viable for all labs.

On the clinical side, there is a trend towards in-house labs operated by lab technicians. This is a formula that is likely to continue to grow. The dental offices market with chairside mills are in about 10 percent of dental practices and that percentage is expected to grow slowly.

What are the three biggest ways that digital dentistry has changed the way dental labs and dentists work together?

1. Digital impressions have enabled labs to offer same day (or next day) crowns to local dentists. This enables labs to have increased opportunity within their geographical area. Digital impressions are also reducing remakes and chairside adjustment at insertion time.

2. Surgical guides fabricated in the dental lab help labs develop stronger relationships with their customers. Guided surgery also results in a superior end result. This enables labs to acquire new customers as so few labs are offering this service.

3. Collaboration with customer through technology is easier than ever. There are screen share programs, texting and email that can all take communication to a collaborative level. Labs that collaborate are labs that will be successful long term.

Are there digital dentistry aspects/benefits/equipment that are being underutilized?

Yes, 3D printing should go into most labs over the next year. There are now very affordable 3D printers that can make custom trays, models, bite splints, casting and press patterns and surgical guides. Digital impressions are finally becoming mainstream. This creates a better patient experience and more accurate prosthetics. Scanning analog impressions should become more popular. This process saves valuable time in the manufacturing workflow. There are now many newer scanners that scan impressions very accurately.

Bob Cohen, CDT
Why do you think those are being underutilized and how can that be changed?

Until the very recent technology breakthrough in 3D printer technology and subsequent significant price reduction, the high cost of these printers only provided a positive ROI for large labs. Now there are printers that are priced for every lab. I expect 2017 to be the year of the 3D printer. Intra oral scanners are now on third and fourth generation devices. Many manufacturers have taken customer feedback and made necessary improvements resulting in improved ease of use, accuracy, speed and patient comfort. Scanning impressions was not viable in many older model scanners. For labs to optimize production, it is likely many will need to invest in the latest scanning technology.

Do you think we are on the cusp of greater adoption of digital dentistry by dentists and by labs?

Dentists are currently being squeezed by insurance companies. These insurers are reducing fees for services to historically low levels. That said, better, faster cheaper will become more in demand very quickly. If a digital solution can accommodate two of these three demands, I believe it will be accepted and adopted quickly.

What are the three things about digital dentistry today that has you most excited?

1. Material science
2. Improved digital workflow
3. Manufacturing of digital dentures

What do you wish everyone knew about the growth potential and benefits of digital dentistry?

Lab owners need a better understanding of zirconia. Most see all zirconia discs as all being about the same. (Editor’s Note: Please see this month’s Tech Tip on page 10 and technical article on page 16 for more about zirconia.) To some degree, this is true. However, there are a couple of companies (Amann Girrbach and Noritake) that are manufacturing multilayered discs that result in the most esthetic monolithic restorations available.

For labs, it’s never been easier to improve the quality of work they produce. One simply needs to change the disc they use to one of these new products. What lab owners need to understand, their competition is or will soon be using these best-in-class products and this could have a negative impact on those unwilling to change. If a lab has been using the same zirconia for two or more years, they are likely using a less esthetic, obsolete material.

If you could offer one piece of advice to a lab owner about implementing digital dentistry in their lab, what would it be?

The laboratories that thrive over the next decade will be lean, fully automated and employ two different groups of staff.

1. Those that are dental technicians.
2. Others that are computer savvy, catch on to new software programs quickly and understand digital workflow troubleshooting and needs.

Successful labs will also need an individual to stay up on the latest technology as everything is changing very rapidly and will continue to do so.

What about digital dentistry has the most potential to have a major impact on patient care today and in the future?

Again, I think we will have a single-appointment, lab-fabricated crown or bridge. Many more implants will be placed with surgical guides resulting in fewer surgical complications. Implant placements will be more ideal resulting in superior end results, increased implant survival rates and fewer post completion complications.

What does the near future (next five years) of digital dentistry look like to you?

Interesting question, I believe the single-appointment, lab-fabricated crown or bridge will become viable. Material science will continue to make advancements with improved esthetics and ceramic materials with faster manufacturing cycles. Digital equipment will continue to be faster, more accurate and less expensive. Digital dentures will be mainstream with most analog denture processes becoming obsolete. Lastly, 3D print technology will become more pervasive in labs.
New Titles in Dental Technology

**Edited by Sillas Duarte, Jr**
- 256 pp; 1,140 illus; ©2017;
- ISBN 978-0-86715-709-3 (J0628); **US $148**

**Hitoshi Aoshima**
- 104 pp; 361 illus; ©2016;
- ISBN 978-0-86715-709-3 (B7093); **US $82**

**Arnold Hohmann and Werner Hielscher**
- 408 pp (softcover); 767 illus; ©2016;
- ISBN 978-0-86715-612-6 (B6126); **US $128**

**J. Robert Kelly**
- 128 pp (softcover); 176 illus; ©2016;
- ISBN 978-0-86715-653-9 (B6539); **US $39**

**Principles of Design and Fabrication in Prosthodontics**
- 400 pp (softcover); 830 illus; ©2014;
- ISBN 978-0-86715-611-9 (B6119); **US $98**

**Foundations of Dental Technology: Anatomy and Physiology**
- 400 pp (softcover); 830 illus; ©2014;
- ISBN 978-0-86715-611-9 (B6119); **US $98**

**Ceramics in Dentistry: Principles and Practice**
- 400 pp (softcover); 830 illus; ©2014;
- ISBN 978-0-86715-611-9 (B6119); **US $98**
Zirconia Esthetics

Without Sacrificing High Strength

Zirconia is dentistry’s wonder material. Almost every dentist is asking for it, but they don’t always know where and when it should be used and with all the new zirconias on the market, we as technicians don’t always know how to advise them. So, how do we achieve the high strength the dentist desires without sacrificing the esthetics the patient demands?

Zirconia History

To be able to fully understand how dental zirconias should be used today, we need to have at least a cursory understanding of where they came from. Specifically, we should know what we gained or lost in each generation of dental zirconia.

When zirconia was introduced to the dental field as a substructure material, it was a very strong material with good translucency. Unfortunately, it required very long sintering cycles. Also, it was prone to Low Temperature Degradation (LTD). This meant at low temperatures in the presence of water it would begin to degrade and cause catastrophic failures of the restorations.

By changing some of the additive materials in the zirconia mixture, the second generation of materials were able to keep their excellent mechanical properties while reducing the risk of LTD and decreasing sintering times. The unfortunate result was the loss of translucency in the material. However, this made it a very good material to be used for fixed prosthetic frameworks. We could make fairly thin substructures (.3mm-.5mm) with relatively small connectors (7mm2-9mm2). This made it ideal for single units, short and long span bridges, and implant supported structures.

With the introduction of the third generation materials, which added more yttrium to the mixture, developers were able to create a material that still kept its mechanical properties, increased its resistance to LTD, increased its translucency and still had a relatively short sintering cycle. This gave rise to the monolithic zirconia restoration. This material, while still being very strong, had translucency levels that were adequate for posterior restorations and became known in the market as the more esthetic and less expensive option to the full gold crown. This was great for both the dentist and the lab as it cost less to produce and was easier to produce. It could also be cutback and layered with ceramic powders to produce a very esthetic restoration for the anterior region.

As the monolithic zirconia restoration gained popularity, dentists and technicians began to expand where they would use it in the mouth. More full contour restorations were making their way into the esthetic zone, with mixed results. Due to this, the industry
continued to develop more translucent (fourth generation) zirconia materials by greatly increasing the yttrium from less than 3 percent by weight to greater than 9 percent by weight. They went from a completely Tetragonal Zirconia Polycrystal (TZP) formula to a formula that incorporated varying percentages of cubic phase zirconia creating a Partially Stabilized Zirconia (PSZ). This increased the translucency and lowered the risk of LTD of the material. Unfortunately, it increased the length of the sintering cycle and reduced the physical properties to a point that made it comparable (in flexural strength, fracture toughness, indicated uses, and thickness requirements) to lithium disilicate materials (i.e.: IPS e.max CAD).

Types of Zirconia and General Properties

Today in dentistry, the majority of zirconia restorations are made from the third and fourth generation materials. These can be broken into three basic categories: opacious (third generation), translucent (third generation) and increased translucent (fourth generation). Let’s look at the ISO standard and general properties of each.

The more opacious zirconias are similar in opacity levels of the second generation materials, but with the added benefits of the third generation. These materials must meet the ISO 6872:2015 standard by having a biaxial flexural strength greater than 900 megapascals (Mpa), fracture toughness equal to or greater than 550 Mpa, fracture toughness of 2 MPA√m, and a chemical solubility less than 10 µg/cm².

Translucent materials are basically the same as the opacious materials and have to meet the same ISO standards as those above. The main difference being that they do not have as many opacifiers in their mixes allowing for more translucency.

The increased translucent materials are very different from the other two. These materials have a much lower standard to meet. According to ISO 6872:2015, these materials must have a biaxial flexural strength equal to or greater than 550 Mpa, fracture toughness of 2 MPA√m, and a chemical solubility less than 10 µg/cm².

Indications for Different Types of Zirconia

So, what do all these numbers mean in the real world and how do we, as technicians and dentists, decide where to use each of these materials?

Because of their high strength and ability to block darker prep shades, the more opacious zirconias (such as Zenostar MO, Wieland Dental + Technik GmbH) are great for hiding stained preps, metal posts, and implants. This is especially true when dealing with decreased space due to position, placement, or angulation of preps and abutments. They work well in all areas of the arch from a single tooth restoration in the anterior to a three-unit bridge in the posterior, to an All-on-4 implant full arch prosthesis (Figure 1). The drawback is, due to their opacity, they need to be layered to look esthetic. Luckily, this is accomplished fairly routinely using either build-up or press-over techniques.

Translucent zirconias (such as Zenostar T, Wieland Dental + Technik GmbH) are the real workhorse these days. I really love these materials and will use them in most cases. They are ideal for any size restoration. Single units in the anterior that are fully layered or micro-layered only on the facial are easily fabricated. Three-units (and more) bridges can be made that are partially layered, monolithic, or a combination of both can be made. I can even do the All-on-4 implant full arch prosthesis that is partially layered, full monolithic, or a combination layered and monolithic. This is why I like them, they are so versatile.

The increased translucent materials (such as Zenostar MT, Wieland Dental + Technik GmbH) are the relative newbie to the market. They have their definite advantages, as well as disadvantages.
Advantages include being able to inexpensively create full monolithic restorations that are almost as translucent as glass ceramics. Disadvantages include span (Figure 2), thickness and connector size limitation, inability to mask darker preps, and a tendency to drop in value in thicker restorations. Another challenge for me is the different way that it refracts light (Figure 3). Because of the crystal size and shape, these materials tend to have a pearlescent look to them, especially when hand polished. Is this bad? No. It’s just a challenge in certain situations. If I’m replacing a single anterior tooth, there may be difficulty matching the adjacent teeth. However, if I’m doing a smile design and replacing all six anteriors, then it is much easier because they will blend with one another and look natural.

**Processing Methods**

So, with three different materials, you would think we have three different processing methods. Fortunately, this is not the case. All these materials mill very similarly and the physical manipulation is basically the same.

The basic steps are:

1. Remove from the milling disc with a carbide bur, being careful to support the material so as not to cause too much vibration or bur “chatter” and cause a crack (Figure 4).

2. Use a diamond impregnated silicone wheel to smooth the bar attachment point to fit in with the overall contours (Figure 5).

3. Use a fine diamond to re-contour any occlusal anatomy that you see fit (Figure 6). I usually don’t do this as I use a .3mm bur for the anatomy in my mill (Zenotec Select, Wieland Dental + Technik GmbH).

4. I then use a fiber wheel (Pro Art Polishing Wheel, Ivoclar Vivadent, Figure 3) to separate the restoration with cross-cut tungsten carbide burs or other suitable grinding instrument (Figure 4).

![Figure 2 Indications for Zenostar MT](Image)

![Figure 3 Optical properties of Zirconia](Image)

![Figure 4 Separating the restoration with cross-cut tungsten carbide burs or other suitable grinding instrument](Image)

![Figure 5 Smoothing out the attachment point of the holding pin](Image)
Inc.) to gently go over the surface to smooth and pre-polish the green state zirconia (Figure 7). This is a great time saver for me, as it gives the sintered zirconia a slight sheen coming out of the sintering furnace, reducing the amount of polishing I have to do on the axial surfaces. I still have to smooth and polish the occlusal surfaces to avoid wear to the opposing dentition.

5. Lastly, I use a carbide bur to create any surface texture on the facial of the restoration to make it blend. When doing this, more is better. Remember these restorations shrink about 20 percent to 25 percent during sintering, and any texture you put in, will become much finer and less noticeable.

At this point, I have two choices:

1. Sinter if using a pre-shaded zirconia.
2. Color, using infiltration liquids appropriate for the translucency level of the zirconia.

My preferred method is using an infiltration liquid. I get two benefits with this. First, I can control my inventory. If I am using pre-shaded discs, I have to have every shade available, in probably five different thicknesses. This can mean having 30 to 40 different discs in inventory at all times to be able to manufacture whatever is required. If I’m using infiltration liquids, I only need to keep the five different size discs in stock. Secondly, I can color them any way I like.

If I need a little more chroma cervically, I can add an extra brush stroke of material. I can also control the blending of the shade, giving it more perceived translucency if needed (Figures 8-15).

If using infiltration liquids, I must dry the restorations well before putting them in the sintering furnace. This can be done using either a very expensive cast drying cabinet, a less expensive infra-red lamp, or my favorite method of an inexpensive toaster oven bought at one of the big-box stores. I like this as I can control the temperature very well and a draft from an HVAC vent or door will not have any effect on the temperature. At 140˚C (284˚F), this is done rather quickly (five minutes for single units up to an hour for full-arch cases) and without causing any defects in the material. If I put these restorations into a sintering furnace without them being fully dry, it can cause damage to the restoration (micro-fractures, discoloration) or cause premature contamination of the furnace muffle requiring running decontamination cycles more often.

After sintering, it’s time to finish the restoration. This can mean polishing and/or staining and glazing if full contour, or it can mean micro-layering/full layering ceramic.

In the posterior region (second bicuspids or molars), I will almost always do monolithic restorations with a simple stain and glaze on the axial walls and a polish on any functional surfaces. I prefer the stain and glaze
technique with a universal stain and glaze system (IPS Ivocolor, Ivoclar Vivadent, Inc.) (Figure 16). This gives me a more natural look to the restoration. I prefer the IPS Ivocolor product because I can use the same mix of material for any monolithic restorations I produce (IPS Empress, IPS e.max, Zenostar, IPS ZirPress) and fire them in the same cycle of the furnace, reducing the chance of making a mistake and melting a restoration.

As I move into the esthetic zone (first bicuspid and forward), I have a tendency to do a little micro-layering. For this, I like to have a material in the lab that works well on different materials. IPS e.max Ceram (Ivoclar Vivadent, Inc.) fits this bill. It was developed to work on both IPS e.max Lithium Disilicate and zirconia materials (Zenostar, Wieland Dental + Technik GmbH). Even better, with us all moving towards more translucent materials, Ivoclar Vivadent recently introduced IPS e.max Ceram Power Dentin and Power Incisal materials. These materials are perfect for these more translucent materials, because they have an added brightness to them to reflect more light allowing the restorations to appear higher in value (Figure 17). These materials also work on any zirconia regardless of the translucency level, as long as the co-efficient of thermal expansion (CTE) is 10.5 – 11.0 x 10^-6/K at 500ºC.

Knowing your materials and what they can and can’t do will allow you to guide your dentist clients to their proper use. This will help you to avoid disappointing yourself, the dentist and—most importantly—the patient.
About the Author:

Patrick Coon, CDT, TE, has more than 32 years of experience in the dental technology field. He completed the U.S. Air Force's dental laboratory training course at Shepherd Air Force Base (AFB) in Wichita Falls, TX in 1988. He has worked in all areas and capacities in the dental laboratory. His last assignment before retirement was as manager of the Air Forces second largest base dental laboratory managing 14 technicians. After retirement from the Air Force, Coon continued working for the federal government as the senior technician and trainer at Keesler AFB, training new technicians arriving from technical training school. He received his A.A.S. Degree in dental laboratory technology from the Community College of the Air Force in 2000 and his CDT certifications in 2004 (crown and bridge) and in 2006 (orthodontics). He left federal service in June 2013 to join Ivoclar Vivadent, Inc. as a technical consultant where his duties include assisting customers with technical issues, teaching courses, and performing in-depth product testing in support of research and development of materials for both Ivoclar Vivadent and Wieland Dental.

Earn continuing education credits for this article and quiz!

Receive .5 hours CDT/RG Scientific credit and .5 hours of General credit towards your state of Florida dental laboratory renewal by reading this article and passing the quiz.

To get your credit, complete the quiz located on the FDLA website at www.fdla.net using the focus Magazine link. Once you have completed the quiz, fax it to FDLA at 850-222-3019. This quiz is provided to test the technician’s comprehension of the article’s content and does not necessarily serve as an endorsement of the content by FDLA.
FDLA Workshop a Success

4Points Dental Designs, Inc. hosted a hands-on workshop on February 11 in St. Petersburg. We would like to thank GC America, Inc. for sponsoring the session, *Shape, Contour and Texture: The Importance of Single Anterior Morphology*, presented by Lucas Lammott.

*Above:* Rick Sonntag, 4Points Dental Designs, Inc. introduces Lucas Lammott to the participants of the course.

*Left:* Lucas Lammott demonstrates his technique.

*Below:* Attendees were excited to participate in the workshop.
Are you aware of, or do you suspect, that an unregistered dental laboratory is providing dental laboratory services in Florida? There are several ways to report suspected unlicensed health care practices:

The first option is to complete the state’s healthcare practitioner health form (www.floridahealth.gov/licensing-and-regulation/enforcement/_documents/frm-unlicensed.pdf). You can return it in one of three ways:

1. Via mail to the Florida Department of health, Consumer Services Unit, 4052 Bald Cypress Way, Bin C-75, Tallahassee, Florida 32399-3275
2. Via email: mqa.consumerservices@flhealth.gov
3. Via fax to 850.488.0796

Also, you should be aware that under Florida law, e-mail addresses are public records. If you do not want your email address released in response to a public records request, do not send electronic mail. Instead, contact the Florida Department of Health office by phone or in writing. Written communication is also a matter of public record. Omit any information you do not wish to be disclosed. Therefore, you may also submit the form to FDLA anonymously and FDLA will submit on your behalf.

If you choose this method, please mail the form to FDLA, 325 John Knox Road, L103, Tallahassee, FL 32303. You may also email the following information to FDLA Executive Director, Jillian Heddaeus, CMP, IOM at jillian@executiveoffice.org:

1. Lab name
2. Location
3. Any additional information
4. Contact information for follow-up (optional)

Please note that before submitting information to the Florida Department of Health, FDLA will perform due diligence by verifying whether the establishment is licensed as a healthcare practice regulated by the department using the Florida Department of Health License Verification search application (www.appsmqa.doh.state.fl.us/MQASearchServices/Home).
The changing landscape of the industry hasn’t just brought with it the big picture decision of when the laboratory should go digital and how. It also brings with it the decision to either bring in new technicians that are capable of digital design or train current employees on the new software. With this new job expectation, many dental laboratory owners are asking, how long should I expect for training time? According to NADL’s 2016 market research 34 percent of survey respondents stated that it took less than a year to become proficient in digital design while the majority, 51 percent, stated it took one to two years. Another frequently posed question is what is the average salary for a digital designer? Here are the results.

<table>
<thead>
<tr>
<th>What is the average annual salary for your most experienced digital designer?</th>
<th>What is the average annual salary for your least experienced digital designer?</th>
</tr>
</thead>
<tbody>
<tr>
<td>25%</td>
<td>33%</td>
</tr>
<tr>
<td>$35K - 44K</td>
<td>Less than $25K</td>
</tr>
<tr>
<td>21%</td>
<td>26%</td>
</tr>
<tr>
<td>$65K+</td>
<td>$25-34K</td>
</tr>
<tr>
<td>18%</td>
<td>21%</td>
</tr>
<tr>
<td>$55K-64K</td>
<td>$35K-44K</td>
</tr>
<tr>
<td>15%</td>
<td>6%</td>
</tr>
<tr>
<td>$45K – 54K</td>
<td>$55K-64K</td>
</tr>
<tr>
<td>9%</td>
<td>5%</td>
</tr>
<tr>
<td>$25-34K</td>
<td>$45K – 54K</td>
</tr>
<tr>
<td>6%</td>
<td>3%</td>
</tr>
<tr>
<td>Less than $25K</td>
<td>$65K+</td>
</tr>
</tbody>
</table>

Reprinted with permission from the Journal of Dental Technology
THE AMERICANA GROUP

VHF MASTERMILL K5

- 5 AXIS
- 16 AUTO TOOL CHANGER
- CAM SOFTWARE INCLUDED

$24,500.00 plus shipping

SALES, SERVICE AND TECHNICAL SUPPORT

NEW 3SHAPE SCANNERS

- E1
- E2
- E3
- No Dongle Fee Required
- 100% Open Architecture
- Available with Scanner Replacement

CALL US FOR A QUOTE

AMERICANA DENTAL GROUP
6015 BENJAMIN RD. SUITE 310
TAMPA, FL 33634

ONE DAY TURN AROUND ON STLS
FREE SHIPPING IN FLORIDA

- INCLUSIVE® w/ TI Base Abutment
  $119.00 *from STL File

- Titanium Custom Abutment
  $94.99 *from STL File

- INCLUSIVE® w/ TI Base Screw Retained Full Contour ZR Crown
  $239.99

- ADAMAS Anterior Full Contour Zirconia
  $39 from STL

- ZR HT Copings $29 from STL

FLORIDA’S LASER WELDING CENTER

- FIX ALL METALS
- BRIDGES, PATRIALS, IMPLANTS, BARS, ECT.

3SHAPE SCANNERS

- $8,995.00 *Starting price

THE AMERICANA GROUP

AMERICANA DENTAL GROUP
6015 BENJAMIN RD. SUITE 310
TAMPA, FL 33634

Americana Dental: 813-888-8889
U.S Dental: 813-886-8918
info@americanadental.com

U.S. DENTAL MILLING

5 AXIS
16 AUTO TOOL CHANGER
CAM SOFTWARE INCLUDED

CALL US FOR A QUOTE

E1 E2 E3

- No Dongle Fee Required
- 100% Open Architecture
- Available with Scanner Replacement

CALL US FOR A QUOTE

AMERICANA DENTAL GROUP
6015 BENJAMIN RD. SUITE 310
TAMPA, FL 33634

Americana Dental: 813-888-8889
U.S Dental: 813-886-8918
info@americanadental.com
High Strength, High Esthetics

Since its introduction, IPS e.max Lithium Disilicate has been relied upon for its high strength and high esthetics by the world’s leading clinicians. Now, after 10 years of continuous quality testing, IPS e.max has demonstrated an average biaxial flexural strength of 500 MPa. With this proven record of strength, Ivoclar Vivadent now recommends 1mm of material thickness for minimally invasive restorations when adhesively bonded.

The IPS e.max you know, but better!

- Minimally invasive preparation
- New translucency options
- 500 MPa for maximum confidence

For your next case choose the most trusted, most prescribed all ceramic in the world, make it e.max...because better matters.
IPS e.max is even better!

Since its introduction, IPS e.max Lithium Disilicate has been relied upon for its high strength and high esthetics by the world's leading clinicians. Now, after 10 years of continuous quality testing, IPS e.max has demonstrated an average biaxial flexural strength of 500 MPa. With this proven record of strength, Ivoclar Vivadent now recommends 1mm of material thickness for minimally invasive restorations when adhesively bonded.

• Minimally invasive preparation
• New translucency options
• 500 MPa for maximum confidence

For your next case choose the most trusted, most prescribed all ceramic in the world, make it e.max... because better matters.

© 2017 Ivoclar Vivadent, Inc. Ivoclar Vivadent and IPS e.max are registered trademarks of Ivoclar Vivadent, Inc.
2017 FDLA Board of Directors

PRESIDENT
Fernando Deleon
Precision Esthetics
Apopka
deleons90@aol.com

PRESIDENT ELECT
Lenny Herrera, CDT
The Surveyor Dental Arts
West Park
survdentsupp@aol.com

TREASURER
Jeremiah Naas, CDT
Inverness Dental Arts
Inverness
iarts@tampabay.rr.com

SECRETARY
Tim Stevenson, CDT
Stevenson Dental Technology, CDL
Beverly Hills
tim@sdt-labs.com

DIRECTORS AT LARGE
Bryan Johnson
Sterling Dental Arts
Merritt Island
sterlingdntarts@gmail.com

Tryron Lloyd
Knight Dental Group, CDL, DAMAS
Oldsmar
tlloyd@knightdentalgroup.com

Daniellis Reyes
Signature Dental Lab
Naples
zerpenuja@gmail.com

Dory Sartoris
DCS Dental Lab, Inc.
Jacksonville
dory@dcslab.com

Alexander Wünsche
Zahntechnique Inc.
Miami
alex@zahnlab.com

PAST PRESIDENT
Gail Perricone
GPS Dental Lab Inc.
Orlando
gperricone@gpsdental.com

SUPPLIER REPRESENTATIVES
Nick Azzara
DNS Consulting
n.azzara01@gmail.com

Nancy Franceschi, CDT
GC America, Inc.
nancy_franceschi@gcamerica.com

EXECUTIVE DIRECTOR
Jillian Heddaeus, CMP, IOM
Tallahassee
jillian@executiveoffice.org

SAVE THE DATE!
www.fdla.net/symposium
Southern States SYMPOSIUM & EXPO
presented by FDLA
MAY 11–13, 2017
RENAISSANCE ORLANDO AT SEAWORLD | ORLANDO, FL

Classifieds

SDtech: on Florida’s Nature Coast is Hiring!
DENTURE SETUP tech and FIXED WAX METAL. SDtech is a progressive full service lab. Both positions require at least 2 years of experience, 5 years preferred. We work as a team, so should you! Email your resume along with salary request to: thelab@sdt-labs.com

Wise Dental Laboratory
Wise Dental Laboratory in beautiful Asheville, NC, is seeking a motivated dental technician to join their team. Wise Lab specializes in dentures & partials. Knowledge of all aspects of denture production is desired. Come enjoy the many activities the mountains of western North Carolina provide. Send resume to wisedental@att.net or call Mark Glass 828-252-3876.

To My Dental Technician Colleagues
Hello, my name is Scott Schmitt and I am a prosthodontist who has been practicing in Altamonte Springs, just north of Orlando, for 18 years. My practice was built to accommodate a commercial dental laboratory and I am searching for dental technician partner to fill that space. Ideally, skills in removable appliances, implants and CAD/CAM would best compliment my practice. I can be flexible with the structure of this relationship but need to find someone with talent and a positive attitude. If that is you, I look forward to speaking with you about a great opportunity.

www.schmittprosthodontics.com
C. Scott Schmitt, DMD MS
scott@schmittprosthodontics.com
407-617-2405

CONTACT: Maureen Turner at (850) 224-0711 or advertising@fdla.net

28 • focus • 2nd Quarter 2017
These companies support the Florida Dental Laboratory Association in our vision to advance the individual and collective success of Florida's dental technology professionals in a changing environment. They are FDLA’s Business Partners, and have pledged their support to Florida’s dental laboratory profession.

**Accurate Metals & Refining, LLC**
Phone: 866-973-3463  
Fax: 860-871-2925  
www.accuraterefining.com  
Refiner of precious metal scrap.

**The Argen Corporation**
Phone: 858-455-7900  
Fax: 858-626-8658  
www.argen.com  
The Argen Corporation provides a wide range of alloys to meet any need, as well as refining services.

**Aspen Dental**
Phone: 315-396-5507  
Fax: 866-262-0840  
www.aspendentaljobs.com  
Aspen Dental supports over 480 general dentistry locations in 27 states across the US. We are on a mission to give America a healthy mouth.

**Atlanta Dental Supply**
Phone: 800-218-5447  
Fax: 877-614-0597  
www.atlantadental.com/lab  
Atlanta Dental Supply Lab Division is an employee-owned company servicing the dental lab market for over 145 years. Specializing in denture teeth by Dentsply TruByte, Heraeus Kulzer, Ivoclar, as well as lab supplies by Modern Materials, Garreco, Whip Mix, S S White, Keystone, GC, Dedeco and Shofu. Atlanta Dental also offers lab scanning solutions.

**DENTSPLY Prosthetics**
Phone: 352-293-1471  
Fax: 813-436-5196  
www.dentsply.com  
Denture Teeth, Denture Materials, CAD/CAM, Porcelain, Lab Equipment

**Handler Red Wing Int’l**
Phone: 908-233-7796  
Fax: 908-233-7340  
www.handlermfg.com  
American made lab equipment and furniture manufacturer since 1920. Handler builds Red Wing lathes and model trimmers, Dyna Vac dust collectors, hand pieces, vibrators, flasks, presses, denture curing systems, lab bench and case work.

**Heraeus Kulzer**
Phone: 574-299-5502  
Fax: 574-291-2907  
www.heraeus-scrap.com  
Scrap refining.

**Ivoclar Vivadent, Inc.**
Phone: 800-533-6825  
Fax: 770-935-4794  
www.ivoclarvivadent.com  
Leading international manufacturer of high quality dental materials for preventative, restorative and prosthetic dentistry.

**Lista International**
Phone: 860-538-6676  
www.listaintl.com

**Panthera Dental**
Phone: +1 (855) 233-0388  
www.pantheradental.com  
Headquartered in Quebec City, Canada, Panthera Dental is a world leader in CAD/CAM prosthetic implant solutions and dental sleep appliances. The rapid growth of the company is based on the values that are very dear to us, namely highly attentive customer care, quality products, as well as innovation, and on its collaboration with many key opinion leaders in the dentistry field. Both a pioneer and a leader, Panthera Dental has successfully combined creativity, science and know-how to develop its proprietary innovative technology and is now able to offer next-generation products to the dental industry worldwide.
Traditional Meets Digital Dentistry
At the Southern States Symposium & Expo

Although his dental practice in South Lake, Texas is heavily invested in digital technology and he has his own bench for hands-on work, Dr. Steven Fuqua, DDS, MS, believes in the importance of skilled dental technicians to the dental team.

“We still have to have the skills and craft of an experienced technician to add life into our dental prosthesis.”

“I have not seen any digital technology that can completely replace the artistic talent and skills of a dental lab technician,” he said recently when focus caught up with him to talk about his keynote presentation at the Southern States Symposium & Expo.

In Tradition Meets Digital Dentistry, Fuqua and Alexander Wünsche will discuss progressive workflows and new materials in dentistry. The two will put extra emphasis on the fact that even though everyone in dentistry is increasingly affected by digital workflows, it is still necessary to learn and combine these with our traditional artistry every day.

“We’re in a very exciting time in dental treatment and in dental laboratory technology,” Fuqua said. “We have access to digital workflows, but we still have to have the skills and craft of an experienced technician to add life into our dental prosthesis.”

During the keynote presentation, attendees will get a look at how to overcome the challenges facing the dentist and the technician; learn about unique digital workflow options for better communication and improved patient treatment—especially in the area of provisional to finished restoration; and how to use complimentary materials and workflows that are available because of digital technology. All of this fits right in Fuqua’s wheelhouse as a prosthodontist with a passion for digital technology. He began creating his digital dentistry practice a decade ago. Today, his office has Cone Beam CT, intra-oral scanners and more.

“I think that it’s the future,” he said.

Of course, a large part of that future includes dental technicians who are not only comfortable with digital dentistry, but who are also highly skilled in the time-honored techniques of analog dentistry. The two, Fuqua said, are not mutually exclusive.

“We (he and co-presenter Wünsche) welcome the technology available to us today, but know that the analog way of treatment, which we have used for many years, has not gone away. We can support both.”

Editor’s Note: The 2017 Southern States Symposium & Expo will take place May 11 – 13 at the Renaissance Orlando at SeaWorld in Orlando. For more information about the Southern States Symposium & Expo, please check out the event brochure included in this issue of focus.
Southern States SYMPOSIUM & EXPO
presented by FDLIA

ANALOG VS. DIGITAL

MAY 11–13, 2017
RENAISSANCE ORLANDO AT SEAWORLD | ORLANDO, FL
The 2017 Southern States Symposium & Expo will take place May 11 – 13 at the Renaissance Orlando at SeaWorld in Orlando, Florida. “Analog vs. Digital” is the theme for the 2017 Symposium. Increasing awareness of the opportunities for enhancing education in the industry through the Foundation for Dental Laboratory Technology and gaining knowledge through the Symposium courses is the goal of the 2017 event. Make plans to attend the meeting and prepare to enhance your education for future excellence!

The Southern States Symposium & Expo, presented by FDLA, is the largest dental laboratory industry meeting in the country run by a nonprofit association. Everything being offered at the Symposium will provide everyone in attendance an exceptional experience.

**BRING YOUR CLIENT DENTISTS!**

The Southern States Symposium & Expo courses are specifically designed for the entire dental team. These courses will help both the dentist and the dental technician work together on the latest trends and techniques.

*Don’t miss this excellent opportunity to be a part of one of the industry’s largest meetings providing continuing education courses and an outstanding showcase of dental laboratory products and services.*

Cover photos and photos on this page credit: Alexander Wünsche
2017 Schedule of Events

Thursday – May 11
12:30 p.m. – 5:30 p.m. FDLA Matheson Memorial Golf Tournament
Shingle Creek Golf Club
Sponsored by: Heraeus Kulzer

Friday – May 12
7:00 a.m. – 6:00 p.m. Registration Desk Open
7:30 a.m. – 8:00 a.m. Morning Beverage Break
Sponsored by: BEGO USA
8:00 a.m. – 8:30 a.m. Welcome, Board Installation and Awards Presentation
8:30 a.m. – 9:30 a.m. OPENING KEYNOTE ADDRESS:
Life in the Foxhole Together
Presented by: Terry Fohey, CDT, DTG
Sponsored by: GC America, Inc.
9:30 a.m. – 9:45 a.m. Mid-Morning Beverage Break
Sponsored by: Affordable Dentures
9:45 a.m. – 11:45 a.m. OPTIONAL HANDS-ON WORKSHOP:
Unlock the Bite, Unlock the Problems
Presented by: Marc Wagenseil, D.D., RDT
Sponsored by: VITA North America
(Pre-registration and additional fees required.)
9:45 a.m. – 11:45 a.m. OPTIONAL HANDS-ON WORKSHOP:
Digital Workflow for Guided Surgery in Implant Dentistry
Presented by: Richard Zimmermann, D.D.S.
Sponsored by: Straumann USA
(Pre-registration and additional fees required.)
9:45 a.m. – 11:45 a.m. PANEL DISCUSSION: Is Digital the Answer to our Industry Movement?
Moderator: Alexander Wünsche
Panelists: Al Fillastre, III, CDT;
Lucas Lammott, Barbara Warner Wojdan, CDT, AAACD and Thomas Zaleske, AS
12:00 p.m. – 12:45 p.m. FDLA Luncheon
Sponsored by: The Argen Corporation
12:45 p.m. – 4:45 p.m. HANDS-ON WORKSHOP: (continued)
Unlock the Bite, Unlock the Problems
Presented by: Marc Wagenseil, D.D., RDT
12:45 p.m. – 4:45 p.m. HANDS-ON WORKSHOP: (continued)
Digital Workflow for Guided Surgery in Implant Dentistry
Presented by: Richard Zimmermann, D.D.S.
1:00 p.m. – 3:00 p.m. KEYNOTE SESSION: Traditional Meets Digital Dentistry – Progressive Materials and Workflows in our Industry Today
Presented by: Alexander Wünsche and Dr. Steven Fuqua
Sponsored by: Amann Girrbach and Straumann USA
3:00 p.m. – 6:00 p.m. FDLA Expo Hall Open
3:00 p.m. – 6:00 p.m. Expo Hall Kickoff Reception
Sponsored by: Zahn Dental
6:00 p.m. – 8:30 p.m. FDLA Friday Night Reception at the Renaissance Orlando at SeaWorld
Sponsored by: Dentsply Sirona
Reception Beverages Sponsored by: Aspen Dental

Saturday – May 13
7:00 a.m. – 3:30 p.m. Registration Desk Open
7:30 a.m. – 8:00 a.m. Morning Beverage Break
Sponsored by: Cardinal Rotary Instruments
8:00 a.m. – 9:30 a.m. A COURSES
8:00 a.m. – 12:00 p.m. OPTIONAL HANDS-ON WORKSHOP:
Color Characterization of Acrylic and Masking of Alloy for Complete, Partial Denture, Digitally Fabricated and Implant Borne Bar Prosthetics
Presented by: Thomas Zaleske, AS
Sponsored by: FDA
(Pre-registration and additional fees required.)
8:00 a.m. – 12:00 p.m. OPTIONAL HANDS-ON WORKSHOP:
Enamel Replacement: The New Era for Lithium Disilicate
Presented by: Lucas Lammott
Sponsored by: GC America, Inc.
(Pre-registration and additional fees required.)
9:30 a.m. – 11:00 a.m. Expo Hall Break
9:30 a.m. – 3:30 p.m. FDLA Expo Hall Open
11:00 a.m. – 12:00 p.m. B COURSES
12:00 p.m. – 1:00 p.m. Expo Hall Break / Lunch in Expo Hall
12:00 p.m. – 1:00 p.m. Gavel Club Luncheon (Invitation Only)
1:00 p.m. – 2:00 p.m. C COURSES
1:00 p.m. – 3:00 p.m. OPTIONAL HANDS-ON WORKSHOP: (continued) Color Characterization of Acrylic and Masking of Alloy for Complete, Partial Denture, Digitally Fabricated and Implant Borne Bar Prosthetics
Presented by: Thomas Zaleske, AS
1:00 p.m. – 3:00 p.m. OPTIONAL HANDS-ON WORKSHOP: (continued) Enamel Replacement: The New Era for Lithium Disilicate
Presented by: Lucas Lammott
1:00 p.m. – 5:30 p.m. NBC Exams (CDT & RG Exams)
(Candidates must pre-register with NBC)
2:00 p.m. – 3:30 p.m. Afternoon Beverage Break/Expo Hall Open
Sponsored by: BEGO USA
3:30 p.m. – 4:30 p.m. D COURSES
Choose ONE of the following courses:
Mitigating Risk through Regulatory Compliance
Presented by: Gary Morgan, CDT
Sponsored by: Safelink Consulting
(1 Hour Regulatory Standards Credit / 1 Hour Prevention of Medical Errors Credit)
OR
State Laws Affecting Dental Laboratories
Presented by: Bennett Napier, CAE
Sponsored by: FDLA
(1 hour of Regulatory Standards Credit / 1 hour of Florida Laws & Rules Credit)
Opening Keynote Address

Life in the Foxhole Together

Presented by: Terry Fohey, CDT, DTG

CDT/CG: 1 hour of Scientific Credit • State of Florida: 1 hour of General Credit

After 43 years of owning a successful high end dental laboratory, Mr. Fohey will share his experiences. He will discuss mistakes he has made in business; share his journey, through treating patients in difficult situations. Most of all, he will share how he formed his life around a dental lab profession that has been extremely good to him. You will have the opportunity to ask questions during Mr. Fohey’s motivational presentation.

Terry Fohey

Terry Fohey, CDT is a 1976 graduate of Atlanta Area Technical College, where he was presented with the 1976 Georgia Occupational Award for Leadership in Vocational Education. Mr. Fohey founded NuCraft Dental Arts in 1979. He is a past president of the Georgia Dental Laboratory Association and Founder of the Gebhard Study Club in Athens, Georgia. Terry is a 35 year CDT and a proud member of the DTG. He is a father of twin daughters, Hailey and Hutton, married to a wonderful woman, Ann and has a passion for his family, dentistry, and the outdoors.

Panel Discussion

Is Digital the Answer to our Industry Movement?

Moderator: Alexander Wünsche

Panelists: Al Fillastre, III, CDT; Lucas Lammott; Barbara Warner Wojdan, CDT, AAACD and Thomas Zaleske, AS

CDT/CG: 2 hours of Scientific Credit • State of Florida: 2 hours of General Credit

Our Industry is moving extremely fast towards digital solutions—from simple crown and bridge cases to over complex implant reconstructions to the latest full denture modules. For almost every dental laboratory product, we have a digital solution now. Is this movement the right way to solve every laboratory case on our bench, or are we better in utilizing digital technology and combining it with traditional workflows, or even using exclusively traditional techniques for high end and high level restorations?
Afternoon Keynote Session

Traditional Meets Digital Dentistry — Progressive Materials and Workflows in our Industry Today

Presented by: Alexander Wünsche and Dr. Steven Fuqua

CDT/ RG: 2 hours of Scientific Credit  •  State of Florida: 2 hours of General Credit

Alexander Wünsche and Dr. Steven Fuqua will discuss progressive workflows and new materials in our industry. Even though we are affected by digital workflows more and more, it is still necessary to learn and combine these with our traditional artistry every day.

Alexander Wünsche

Alexander Wünsche is the President of Zahntechnique Dental Laboratory located in Miami, Florida. Alexander attended the Otto Umfried School of Dental Technology in Nuertingen, Germany and attained accreditation as a CDT in Friedrichshafen, Germany. After graduation, he traveled to Ravensburg, Germany and began working with high-end laboratories who focused on implant and all-ceramic restorations. Today, Alexander specializes in ceramics and complex CAD/CAM restorations. He has been published in industry journals, such as Inside Dental Technology (IDT), The Journal of Dental Technology (JDT) and Lab Management Today (LMT). Alexander speaks at regional and national meetings regarding innovations in dental technology.

Dr. Steven Fuqua

Dr. Steve J. Fuqua earned his Bachelor of Science Degree in Microbiology from Texas A & M University in 1991. He then graduated with honors, Cum Laude, from the University of Texas Health Science Center in San Antonio as a Doctor of Dental Surgery (D.D.S.) in 1995. Dr. Fuqua then obtained higher qualifications in dentistry by continuing his training at the University of Texas Health Science Center in San Antonio, where he completed the Prosthodontic Post Graduate Residency Program. At the conclusion of his tenure in 1998, he earned a certificate and Master of Science Degree (M.S.) in Prosthodontics.

Dr. Fuqua maintains active membership in the following professional organizations: American College of Prosthodontist, Academy of Osseointegration, Southwest Academy of Restorative Dentists, International Academy of Gnathology, American Dental Association, Texas Dental Association and the Fort Worth District Dental Society. Dr. Fuqua’s private practice is located in Southlake, Texas and is limited to Implant, Fixed and Removable Prosthodontics.
<table>
<thead>
<tr>
<th>Time</th>
<th>Course</th>
<th>Speaker/Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 A.M. –</td>
<td>CERAMICS / CROWN &amp; BRIDGE</td>
<td></td>
</tr>
<tr>
<td>9:30 A.M.</td>
<td>COURSE A1</td>
<td>Felix Pages, CDT</td>
</tr>
<tr>
<td></td>
<td>Eliminate the Blame Game in your Lab</td>
<td>Sponsored by VITA North America</td>
</tr>
<tr>
<td></td>
<td>COURSE A2</td>
<td>Marc Wagenseil, DD, CDT</td>
</tr>
<tr>
<td></td>
<td>Understanding Occlusion</td>
<td>Sponsored by VITA North America</td>
</tr>
<tr>
<td></td>
<td>COURSE A3</td>
<td>Chris Bormes, MICOI</td>
</tr>
<tr>
<td></td>
<td>Treatment Planning the Edentulous Arch</td>
<td>Sponsored by PREAT Corporation</td>
</tr>
<tr>
<td></td>
<td>COURSE A4</td>
<td>Iain McFarlane, CDT</td>
</tr>
<tr>
<td></td>
<td>Digital Materials and Workflow for Production, Performance and Esthetics</td>
<td>Sponsored by GC America, Inc.</td>
</tr>
<tr>
<td></td>
<td>Enamel Replacement: The New Era for Lithium Disilicate</td>
<td>Al Hodges, CDT</td>
</tr>
<tr>
<td>8:00 A.M. –</td>
<td>CROWN &amp; BRIDGE</td>
<td></td>
</tr>
<tr>
<td>9:30 A.M. –</td>
<td>IMPLANTS</td>
<td></td>
</tr>
<tr>
<td>11:00 A.M.</td>
<td>COURSE A1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Achieving Esthetic Results with Full Contour Restorations</td>
<td>Daniel Alter, MSc, CDT, MDT</td>
</tr>
<tr>
<td></td>
<td>Sponsored by Zahn Dental</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COURSE A2</td>
<td>Matt Tait, RDT, B.Sc.</td>
</tr>
<tr>
<td></td>
<td>Latest CAD design for removables with the Dental Wings software</td>
<td>Sponsored by Nobilum</td>
</tr>
<tr>
<td></td>
<td>COURSE A3</td>
<td>Marshall Gallant, DMD</td>
</tr>
<tr>
<td></td>
<td>Implantology &amp; Bone Preservation for Long-term Oral Rehabilitation and Success</td>
<td>Sponsored by Denstply Sirona Implants</td>
</tr>
<tr>
<td></td>
<td>COURSE A4</td>
<td>Ron Roche</td>
</tr>
<tr>
<td></td>
<td>Synergy Digital Workflow with Straumann CARES and DWOS</td>
<td>Sponsored by Straumann USA</td>
</tr>
<tr>
<td></td>
<td>Enamel Replacement: The New Era for Lithium Disilicate continued</td>
<td>Al Hodges, CDT</td>
</tr>
<tr>
<td></td>
<td>CROWN &amp; BRIDGE</td>
<td></td>
</tr>
<tr>
<td>11:00 A.M. –</td>
<td>REMOVABLES</td>
<td></td>
</tr>
<tr>
<td>12:00 P.M. –</td>
<td>COURSE C1</td>
<td></td>
</tr>
<tr>
<td>1:00 P.M. –</td>
<td>The Digital Workflow with inLab Software and Cercon HT &amp; Celtra Duo</td>
<td>Traci Chambers</td>
</tr>
<tr>
<td>2:00 P.M. –</td>
<td>COURSE C2</td>
<td></td>
</tr>
<tr>
<td>3:30 P.M. –</td>
<td>Case Design for Removable Prosthetics</td>
<td>James T. Ellison, CDT</td>
</tr>
<tr>
<td>4:30 P.M.</td>
<td>COURSE C3</td>
<td>Bernard Robichaud</td>
</tr>
<tr>
<td></td>
<td>The Road to the Perfect Implant Bar</td>
<td>Sponsored by Panthera Dental</td>
</tr>
<tr>
<td></td>
<td>COURSE C4</td>
<td>Al Fillastre, III, CDT</td>
</tr>
<tr>
<td></td>
<td>3D Printing in 2017: Why We Should Be Looking into the Technology</td>
<td>Sponsored by GC America, Inc.</td>
</tr>
<tr>
<td></td>
<td>Enamel Replacement: The New Era for Lithium Disilicate continued</td>
<td>(1:00 p.m. – 3:00 p.m.)</td>
</tr>
<tr>
<td></td>
<td>REMOVABLES</td>
<td></td>
</tr>
<tr>
<td>12:00 P.M. –</td>
<td>EXPO HALL OPEN</td>
<td></td>
</tr>
<tr>
<td>1:00 P.M. –</td>
<td>COURSE C1</td>
<td></td>
</tr>
<tr>
<td>2:00 P.M. –</td>
<td>COURSE C2</td>
<td></td>
</tr>
<tr>
<td>3:30 P.M. –</td>
<td>COURSE C3</td>
<td></td>
</tr>
<tr>
<td>4:30 P.M.</td>
<td>COURSE C4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EXPO HALL OPEN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COURSE C1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COURSE C2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COURSE C3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COURSE C4</td>
<td></td>
</tr>
<tr>
<td>1:00 P.M. –</td>
<td>D COURSES</td>
<td></td>
</tr>
<tr>
<td>2:00 P.M. –</td>
<td>Mitigating Risk through Regulatory Compliance</td>
<td>Gary Morgan, CDT</td>
</tr>
<tr>
<td>3:30 P.M. –</td>
<td>Sponsored by Safelink Consulting</td>
<td>1 Hour Prevention of Medical Errors/ 1 Hour Regulatory Standards</td>
</tr>
<tr>
<td>4:30 P.M.</td>
<td>COURSE D2</td>
<td>Bennett Napier, CAE</td>
</tr>
<tr>
<td></td>
<td>State Laws Affecting Dental Laboratories</td>
<td>Sponsored by FDLA</td>
</tr>
<tr>
<td></td>
<td>1 Hour of Florida Laws &amp; Rules/ 1 Hour Regulatory Standards</td>
<td></td>
</tr>
</tbody>
</table>
CERAMICS / CROWN & BRIDGE

COURSE # A1 – 8:00 A.M. – 9:30 A.M.
CDT/RG: 1.5 hours of Scientific Credit
State of Florida: 1.5 hours of General Credit

Eliminate the Blame Game in your Lab
by Felix Pages, CDT

In many dental laboratory environments - from a one man lab to a large production lab - the avoidance of technical problems that can slow production and increase frustration is largely due to lack of material and technical considerations. It is this lack of information and “WHY” something happened that begins the blame game as to what really happened that caused a problem or several problems.

In nearly 40 years of fielding technical calls and on-site visits, surprisingly the same problems are occurring today. New materials bring new challenges and again, the identifiable problems in newer materials like Zirconia are mostly technique related and having very little knowledge of the material. Many laboratories use these newer materials with very little guidance from manufacturers, thus initiating the problem solving procedures and opinions from many different sources. Only evidence based solutions to problems should be implemented. Clinical protocols for Zirconia are essential for long term clinical success. Protocols from preparation through cementation will be shown in this presentation.

COURSE # B1 – 11:00 A.M. – 12:00 P.M.
CDT/RG: 1 hour of Scientific Credit
State of Florida: 1 hour of General Credit

Achieving Esthetic Results with Full Contour Restorations
by Daniel Alter, MSc, CDT, MDT

With the rapid increase of full contour restorative options acceptance and conversion, Daniel Alter MSC, MDT, CDT will share how to achieve the best results using digital technology (3Shape software) and gain the understanding of how to manipulate colors to consistently attain optimal shades every time. Also, he will show tips and tricks on how to use contrasting colors to give the visual illusion of depth, so every monolithic crown can look as though it was layered.

COURSE # C1 – 1:00 P.M. – 2:00 P.M.
CDT/RG: 1 hour of Scientific Credit
State of Florida: 1 hour of General Credit

The Digital Workflow with inLab Software and Cercon HT & Celtra Duo
by Tra’ Chambers

During this lecture, you will learn how you can improve your workflow with inLab and quality CAD/CAM materials. You will see a system of truly unique components, including all-on-four implant solutions and surgical guides, fully open architecture, seamless dry/wet five-axis milling, the fastest grinding of glass ceramics and the only lab software that accommodates any digital impression system.

REMOVABLES

COURSE # A2 – 8:00 A.M. – 9:30 A.M.
CDT/RG: 1.5 hours of Scientific Credit
State of Florida: 1.5 hours of General Credit

Understanding Occlusion
by Marc Wagenseil, DD, CDT

Are you ready to be more, do more, and better serve your dentist and patient? Go beyond what you learned in school and listen to an entirely new perspective on occlusion. Comprehend how dentures work and function on soft tissues by understanding the details of hydraulics in the mouth.

COURSE # B2 – 11:00 A.M. – 12:00 P.M.
CDT/RG: 1 hour of Scientific Credit
State of Florida: 1 hour of General Credit

Latest CAD design for removables with the Dental Wings software
by Matt Tait, RDT, B.Sc.

Learn the latest development from Dental Wings for Removables, C&B, and Massad digital technique with gothic arch tracing base plates to hold the tooth shells, natural zone, pin receiver and upper striking plate.

COURSE # C2 – 1:00 P.M. – 2:00 P.M.
CDT/RG: 1 hour of Scientific Credit
State of Florida: 1 hour of General Credit

Case Design for Removable Prosthetics
by James T. Ellison, CDT

Choosing the best attachment for a particular case design can be confusing, but it doesn’t have to be. Seven simple questions are all you have to answer to identify the best attachment for any partial denture or overdenture.

This clinic will present the biomechanical considerations of the precision retained partial denture. It will cover the proper use of intra and extracoronal attachments and include an informative slide series documenting several of the more popular attachment systems.

Secondly, the overdenture will be considered. This rapidly growing area of dentistry will be discussed from the biomechanical as well as clinical aspect, including stud and bar systems.

Educational Objectives:
• How to choose the best attachment for any patient needing a partial or overdenture
• Learn the indications for use
• Preparation of the prosthesis for laboratory processing
• Learn the clinical procedures for attachment retained prosthetics
• Learn the advantages of resilient attachments for removable prosthetics

continued
IMPLANTS

COURSE # A3 – 8:00 A.M. – 9:30 A.M.
CDT/RG: 1.5 hours of Scientific Credit
State of Florida: 1.5 hours of General Credit

Treatment Planning the Edentulous Arch
by Chris Bormes, MICOI

A didactic overview of the theory and criteria necessary for the Dental Team to decide when to restore the edentulous arch with a fixed detachable, overdenture bar, or overdenture stud prostheses. The attendee will learn what information is necessary for treatment planning, how to communicate this with dental partners, and why to choose certain treatment modalities.

COURSE # B3 – 11:00 A.M. – 12:00 P.M.
CDT/RG: 1 hour of Scientific Credit
State of Florida: 1 hour of General Credit

Implantology & Bone Preservation for Long-term Oral Rehabilitation and Success
by Marshall Gallant, DMD

This lecture will review all aspects of implantology. Topics to be discussed include restorative and surgical procedures, management of the esthetic zone, socket preservation and implant-retained dentures. Dr. Gallant will also provide a brief overview of selection and implementation of implant restorations.

COURSE # C3 – 1:00 P.M. – 2:00 P.M.
CDT/RG: 1 hour of Scientific Credit
State of Florida: 1 hour of General Credit

The Road to the Perfect Implant Bar
by Bernard Robichaud

In this session, you will learn how you can offer different solutions to treat your patients with various types of implant bars. You will discover new types of implant bars that combine both aesthetic and hygiene. You will also learn about the benefits of several implant bars coming from different milling centers in order to make proper decisions when it comes to outsourcing the fabrication.

DIGITAL WORKFLOW / LABORATORY MANAGEMENT

COURSE # A4 – 8:00 A.M. – 9:30 A.M.
CDT/RG: 1.5 hours of Scientific Credit
State of Florida: 1.5 hours of General Credit

Digital Materials and Workflow for Production, Performance and Esthetics
by Iain McFarlane, CDT

In the digital age, well-planned integration of technology and materials is critical to the success of any laboratory. This lecture will focus on material and equipment choices and digital integration in order to maximize laboratory operational efficiency as well as provide a platform for the lab to sufficiently differentiate itself from the competition through improved production capacity and superior esthetic outcomes. Attendees will gain an understanding of current technology and product choices available, and, more importantly, how those options fit into their existing business model, market position and future goals.
Synergy Digital Workflow with Straumann CARES and DWOS
by Ron Roche

Predictable treatment success depends on comprehensive assessment and surgical planning, and selection of appropriate implants and custom restorative components. Technological advances in digital dentistry are rapidly changing the way the dental team practices in the operatory and laboratory.

This course will review recent advances in digital technology: the increasing importance of the partnership between the dentist and the lab; surgical planning software for implant placement and restoration; and the many benefits available to the treatment team when using digital dentistry solutions. Special emphasis will be given to the relationship between the dentist and the lab that is experienced with surgical planning & surgical guide printing.

3D Printing in 2017: Why We Should Be Looking into the Technology
by Al Fillastre, III, CDT

With any dental laboratory that plans on being successful in the future, an understanding of the digital process at their disposal and the associated costs and benefits are essential requirements to help them make the best decisions for their lab. This program will present the wide ranging capabilities of 3D Printing in the digital lab and give the attendee a better understanding of how 3D printing technology can not only streamline current workflows, but influence their business models by bringing new opportunities and profit centers into the lab. It will show how the dental industry is currently using these technologies, including the growing use of digital impressions and the increasing demand this is placing on labs. While these technologies are quite simple to operate and are relatively “plug & play”, they do require a thorough understanding of the accompanying software and the intricacies of proper nesting and post processing to get the best results. This includes an understanding of proper design parameters as well as when and how to “tweak” outsource provider settings.
Unlock the Bite, Unlock the Problems

Presented by: Marc Wagenseil, D.D., RDT
CDT/RG: 6 hours of Scientific Credit
State of Florida: 6 hours of General Credit

Workshop Schedule:
9:45 a.m. – 11:45 a.m. Hands-on Workshop
12:00 p.m. – 12:45 p.m. FDLA Luncheon (included in registration fees)
12:45 p.m. – 4:45 p.m. Hands-on Workshop

Fabrication of functional implant dentures is paramount to be a successful denturist/technician and provide patient satisfaction. Be introduced to important little things that are required for consistent results in areas of treatment planning, design, occlusal set-up for individual function and processes to help secure your dental future.

Course Objectives:
- Occlusion scheme used to provide natural, non-locking function.
- Implant fixed/ removable case design to manage patient expectations.
- Minimizing relines with proper fitting dentures; treatment planning success.
- Managing attachments from original processing to issues of retention.
- Methodology and physiologic need for Lingualized occlusion (when? / why?).
- To understand the concept of unlocking the bite.

Participants Should Bring:
- Personal denture setup tools, hand piece, grinding instruments and preferred wax (wax is provided if you choose not to bring your own). In addition to bringing your favorite setup tools, if you wish, you are also welcome to bring your favorite flaming tool, such as an alcohol torch or no-flame.

Digital Workflow for Guided Surgery in Implant Dentistry

Presented by: Richard Zimmermann, D.D.S.
CDT/RG: 6 hours of Scientific Credit
State of Florida: 6 hours of General Credit

Workshop Schedule:
9:45 a.m. – 11:45 a.m. Hands-on Workshop
12:00 p.m. – 12:45 p.m. FDLA Luncheon (included in registration fees)
12:45 p.m. – 4:45 p.m. Hands-on Workshop

Predictable treatment success depends on comprehensive assessment and surgical planning along with the selection of appropriate implants and custom restorative components. Technological advances in digital dentistry are rapidly changing the manner in which dental teams practice in operatory and laboratory settings. This hands-on course provides a review of recent advances related to implant therapy. From visualizing the proposed implant site to virtually planning the placement to designing the surgical guide, digital dentistry allows for numerous benefits to the implant therapy team.

Course Objectives:
- Practice cleaning and removing “scatter” from a cone beam computed tomography scan for improved visualization of the planned implant site
- Learn fundamentals for virtual implant planning with today’s 3D diagnostic surgical software
- Review tips and techniques to expedite your guided surgery digital workflow
- Strengthen your communication and relationship with clinicians by achieving predictable dental implant placement for the surgeon and prosthetic results for the restorative dentist

Participants Should Bring:
- Straumann will provide demo laptops for the hands-on session. Participants are encouraged to download the codiagnostix demo software at www.dentalwings.com. This allows you to try the software in advance of the course and feel more comfortable. No other materials needed.

(Note: Pre-registration and additional fees required – Capacity 15. Participants must pre-register by 4/19/2017.) Registration Includes: Friday morning Awards Ceremony & Keynote, Friday Only Registration for Hands-on Workshop, Friday Lunch, Friday Night Reception, admission to the Expo on Friday & Saturday.)
n today’s dental prosthetic market, it’s more important than ever to be able to set your work apart from just being a piece of plastic with teeth. This instructional and hands-on course will share the coloring techniques that provide the best esthetic outcome regardless if the curing procedure is long cure, short cure, pour, microwave cure, or digitally fabricated.

Course Objectives:
- Provide PowerPoint explanations concerning contour and color relationship to tissue supplemented by demonstration and hands-on instruction using products.
- Hands-on instruction providing external acrylic base colorization and tooth modification using products to enhance and personalize each case.
- Hands-on instruction on unique finishing techniques to preserve coloring and provide surface texture and luster.
- Hands-on instruction on how to mask metal clasps, rests, and major connectors on new and existing partial dentures.
- Demonstrate how to colorize acetyl resin.

Participants Should Bring:
- One or several arches that have been cured and roughly finished on which to layer composite.
- Smock or other to aid in protecting street clothing.
- Lighting and magnification preference.

Enamel Replacement: The New Era for Lithium Disilicate

This 6 hour course will introduce you to GC America’s latest product line and the HDM technology behind this new lithium disilicate, Initial LiSi Press. A presentation covering material properties and lab processing steps will be followed by the hands on portion, where each attendee will finish 3 LiSi Press units. Participants will layer a single anterior, use minimum layering on a second unit and use IQ Lustre Paste to stain and glaze a monolithic unit.

Course Objectives:
- Understand proper prep requirements, sprueing and investing procedures.
- Proper burnout/pressing programs
- Best grinding/adjustment instrumentation
- Ceramic layering/final shade adjustment techniques
- Learn materials composition/research testing

Participants Should Bring:
- Porcelain buildup tools, brushes, tray
- Handpiece
- Finishing and polishing burs
Model with copings will be provided.
FDLA will provide the opportunity to earn CE credits during the expo hall hours again this year. The table clinics will take place in the sponsored island booths during expo hall hours on both Friday, May 12 and Saturday, May 13. The following sponsors have agreed to participate this year:

Topic, speaker and schedule for each table clinic will be listed in the Symposium onsite program.

Each participant will earn 1 hour of Scientific Credit (CDT/RG) and 1 hour of General Credit through the State of Florida per course.

FDLA MATHESON MEMORIAL GOLF TOURNAMENT

SHINGLE CREEK GOLF CLUB

9939 Universal Boulevard, Orlando, FL 32819
407.996.9933  www.ShingleCreekGolf.com

Thursday, May 11 • 12:30 p.m. – 5:30 p.m.
(Additional registration and fees required.)

Shingle Creek Golf Club presents challenges to players of all levels and has consistently been rated as one of Orlando’s best golf courses since opening in 2003. The golf club has recently partnered with the renowned Arnold Palmer Design Company to create a new Arnold Palmer Signature Golf Course that was unveiled in November 2016. The course is known for its large, undulating greens, plush fairways and an abundance of water hazards. Make plans to participate in this great networking opportunity!

Tournament Fees Include:

- Greens/Cart fees
- Unlimited practice balls
- Boxed lunch for each golfer
- Prizes awarded for top scoring team, longest drive and closest to the pin
KEYNOTE SPEAKERS

FRIDAY NIGHT RECEPTION
FRIDAY LUNCHEON
EXPO KICKOFF RECEPTION
MATHESON MEMORIAL GOLF TOURNAMENT

TRADE SHOW BAGS
ROOM KEY CARDS
FRIDAY NIGHT RECEPTION BEVERAGES
ATTENDEE LANYARDS

FRIDAY MORNING BREAK
FRIDAY MID-MORNING BREAK
SATURDAY MORNING BREAK
SATURDAY AFTERNOON BREAK

Exhibitors

(as of 2/24/17)

3D BioCAD
Accurate Metals & Refining
Affordable Denture Dental Laboratories
Americana Dental
Andover Castings Dental Lab
The Argen Corporation
Aspen Dental
Atlanta Dental Supply
BEGO USA
Benco Dental
Brasseler USA
Cardinal Rotary Instruments
Cora Refining
Dentsply Sirona
Enovative Technologies
Garfield Refining Company
GC America, Inc.
Heraeus Kulzer
Inside Dental Technology
Ivoclar Vivadent, Inc.
Jensen Dental
Komet USA
Laboratory Solutions
Lista International
McFatter
NADL/NBC/FDLT
Nobel Biocare
NOBILIUM
Nowak Dental Supplies
Panthera Dental
Perflex LTD
PREAT Corporation
Proto3000 Inc
Renfert USA
SnowRock USA
Sterngold
Straumann USA
TruAbutment
Vita North America
Whip Mix Corporation
Xpdent Corp
Zahn Dental
ZIMMER BIOMET Dental
Zirkonzahn USA, Inc.

Register online today at www.fdla.net!
Join us in Building the Future of Dental Technology

At the 2017 Southern States Symposium & Expo, FDLA will join together with the Foundation for Dental Laboratory Technology to increase awareness of the opportunities for enhancing education in the industry.

The Foundation is a 501(c)(3) educational non-profit created in 2008 to advocate and raise awareness of the necessity of dental laboratory technology education for dental technicians and other affected members of the dental team. The Foundation provides grants and scholarships to interested candidates for advanced education and develops educational programs that are relevant and accessible to both dental technicians working in the laboratory as well as dental laboratory technology students.

My Commitment Pledge

We need your help. Make an investment in the future of your profession by contributing to The Foundation. As a contributor, you will be recognized by having your name listed on our website www.dentallabfoundation.org, but more importantly, you will carry the knowledge that you made an investment that will positively impact the future of your profession.

Donor Information:  (Who and how you want your name recognized. This information may be published.)

(Salutation:  ❑ Mr. ❑ Ms. ❑ Mrs. ❑ Dr. ❑ Other_________)  Name ___________________________________________________________

❑ CDT  ❑ RG  ❑ RDT  ❑ DDS  ❑ DMD  ❑ Other:___________

Company ________________________________________________

❑ CDT  ❑ RG  ❑ RDT  ❑ DDS  ❑ DMD  ❑ Other:___________

Address ______________________________________________________________________________________________________

City/State/Zip ________________________________________________________________________________________________

Phone __________________________________________________ Fax _________________________________________________

Email _______________________________________________________________________________________________________

Payment Method:  (Check one option below)

❑ Please find enclosed check payable to the  Foundation for Dental Laboratory Technology
  in the amount of $_______________.  (For a one-time donation.)

❑ Please contact me regarding a multi-year contribution.

❑ Please charge my credit card  (❑ VISA  ❑ MasterCard  ❑ AMEX)
  in the amount of $_______________.  (For a one-time donation.)

Card# ______________________________________________ Exp. Date ____________ Security Code* ___________

*3-digit number on reverse side of most cards, 4-digit number on front for AMEX only

Cardholder Name __________________________________ Phone # __________________________

Billing Address (if different from above) ____________________________________________________________________________

Signature ___________________________________________ Date ______________________________

The Foundation for Dental Laboratory Technology is exempt under section 501(c)(3) of the Internal Revenue Code, making your contributions tax-deductible.
Introducing

MEMBERSHIP LEVELS

Get The Best Value For Your Dollar

With our new membership levels, you can COVER ALL OF YOUR EMPLOYEES as members of FDLA under your laboratory’s membership.

The level you choose allows that many employees to ATTEND OUR ANNUAL SYMPOSIUM, DISTRICT WORKSHOPS, AND OTHER MEETINGS at the greatly reduced FDLA Member rate.

Each level of membership is designed to SAVE YOU MONEY and provide membership benefits to as many employees as you choose to cover.

Your laboratory will be eligible for all of the MEMBERSHIP BENEFITS listed on the next page. Each employee under your laboratory’s membership will also receive focus magazine.

Select Your Level

15+ Members
$750
Unlimited savings*

10-14 Members
$535
up to $110 savings*

6-9 Members
$435
up to $150 savings*

3-5 Members
$335
up to $90 savings*

1-2 Members
$235
up to $40 savings*

* Estimated savings based on previous discount membership incentive plans.
All memberships are individual memberships and only cover one person.

**Education**

As the leader of dental laboratory technology continuing education within the state of Florida, we are committed to helping laboratories formulate a business that will grow, meet the requirements mandated by Florida law and help Certified Dental Technicians (CDT) and Certified Dental Laboratories (CDL) maintain their certification. FDLA members are eligible to receive discounted rates on all continuing education.

**District Workshops** – Rotating around the state of Florida, FDLA District Workshops offer laboratory owners and technicians/staff the opportunity to receive continuing education credits year round on a variety of topics including the required “Florida Laws and Rules for Dental Laboratories” course.

**Online Education** – FDLA offers online education, including the mandatory “Florida Laws and Rules for Dental Laboratories” course, on our Website www.fdla.net.

**Southern States Symposium & Expo presented by FDLA** – As the largest not for profit dental laboratory meeting in the country, attendees have an opportunity to meet with vendors of dental laboratory products/services to discuss equipment, supplies and techniques that can improve their business. A wide range of technical clinics are scheduled to provide members with the most current industry standards and continuing education.

**Legislative/ Government Relations**

FDLA works with several agencies to modify and strengthen existing laws affecting dental laboratories and ensure that such regulations strike a balance between patient safety and ease of compliance. FDLA members are provided critical updates and reminders for important legislation, deadlines and regulatory alerts.

**Florida State Laws Affecting Dental Laboratories Manual** – FDLA has developed a manual defining the state laws affecting dental laboratories. This manual explains in detail: continuing education, data required on prescriptions, materials disclosure and point of origin requirements necessary with all communication and case work executed between the dentist and laboratory.

**Continuing Education Requirement** – The state of Florida mandates that each laboratory in Florida must receive 18 hours of Florida approved continuing education credit every two years. FDLA is an approved provider and offers a variety of courses – including the mandatory course on “Florida Laws and Rules for Dental Laboratories.”

**Business Services**

(available to laboratory owners)

**FDLA Insurance Services** – FDLA is proud to offer special rates for laboratory members for Group & Individual Health & Dental, Disability Income, Employment Practices Liability (EPLI), Office overhead expense, Term Life & Long Term Care, Workers’ Compensation, Pension & Retirement Plan, Fidelity Bond and Auto & Home Insurance.

**Human Resource Hotline** – The average dental laboratory does not have the workforce or means to hire a human resources manager. Even larger laboratories that have a human resources manager may need some advice on tough situations from time to time. FDLA members receive human resources telephone consultation services FREE OF CHARGE!

**Credit Card Payment Processing** – FDLA member laboratories are eligible to receive discounted rates on credit and debit card processing. Our provider specializes in creating card acceptance programs specifically for the dental industry.

**Communication**

**focus Magazine** – FDLA’s quarterly focus Magazine is the most widely read state dental laboratory association publication. It provides updates on crucial industry information, new technology, laboratory management and other issues of vital concern. FDLA members receive a complimentary subscription as part of their membership.

**Website** – FDLA’s Website, www.fdla.net, has comprehensive information on pertinent industry updates as well as conference registration forms, an online directory that enables dentists to look up FDLA member laboratories and other links.
Florida Dental Laboratory Association Membership Application

Any commercial dental laboratory registered by the State of Florida Department of Health is eligible. Membership shall be in the name of the laboratory as registered by the State of Florida. The owner, partner or designated representative shall represent the laboratory in meetings and is eligible for elective office and voting privileges. Dental laboratories located outside of the state of Florida may join as an Affiliate member using this form.

Name: ____________________________________________________________________________________________________ □ CDT
Laboratory Name: ___________________________________________________________________________________________ □ CDL □ DAMAS
Laboratory Owner Name: ____________________________________________________________________________________ □ CDT
Address: __________________________________________________________________________________________________
City: ___________________________ State: _______________ Zip: __________________
Phone: __________________________ Toll Free: _______________ Fax: __________________
E-mail: ____________________________________________________________________________________________________ Website: ______________________________________________________________________
Florida Department of Health Laboratory License Number: (if applicable) ____________________________________________

Payment Information

□ Check, payable to FDLA □ Visa □ MasterCard □ AMEX

Total Enclosed: $__________________________

Card No.: ___________________________ Security Code*: __________________ Expires: __________________

*This is the three digit number found on the back of your card in the signature area. AMEX - This is the four digit number found on the front of your card.

Name as it appears on card: ___________________________________________ Signature: __________________________

Credit Card Billing Address: __________________________________________

RETURN APPLICATION TO FDLA at: 325 John Knox Road Ste L 103, Tallahassee, FL 32303 OR Fax with credit card payment to (850) 222-3019.

Your Laboratory Members:

Please list the name and email address of your employees based on the membership level you chose. (Please note: the primary contact that you listed above will be included in the total count.)

☐ 1-2 Members: $235

☐ 3-5 Members: $335

☐ 6-9 Members: $435

☐ 10-14 Members: $535

☐ 15+ Members: $750

Or Join as a Student:

Open to any students at Florida schools offering a dental technology program.

☐ FDLA Student Membership: $15
HOTEL INFORMATION

Renaissance Orlando at SeaWorld

The 2017 FDLA Southern States Symposium & Expo will be held at the Renaissance Orlando at SeaWorld, located across from SeaWorld Orlando and adjacent to Aquatica and Discovery Cove. From the moment you step into the resort’s lush, tropical landscape, you’ll feel relaxed and refreshed as you immerse yourself in our flowing, aquatic-themed design. From the breathtaking 10-story sun-bathed lobby to the modern, residential suites and luxurious guest rooms – among the largest in the Orlando area – a truly distinctive, contemporary aquatic experience awaits.

The FDLA has secured a special reduced rate of $157 inclusive of the resort fee for FDLA attendees. Also included in your rate are 50% discount on in-room high speed internet, complimentary self-parking and access to 24-hour fitness center. Make your hotel reservations directly with the Renaissance by calling 407.351.5555. Be sure to mention you are with FDLA and make your reservations by Wednesday, April 19, 2017 to receive this special reduced rate. The association can only reserve a certain number rooms at the discounted rate. Once the room block is sold out, even if that day is prior to the cutoff date, a higher prevailing room rate will apply. Make your reservations today!

Great Benefits of Staying at the FDLA Host Hotel:
• Special reduced rate of $157 for FDLA!
• The expo hall is minutes away from your hotel room.
• Increased networking time with attendees in the hotel’s restaurants and lounge areas!
• Across the street from SeaWorld Orlando
• Visit www.renaissanceseaworldorlando.com to learn more about this wonderful resort!

Need additional information on the 2017 Symposium & Expo? Please visit www.fdla.net.

REGISTRATION INFORMATION AND EXPO POLICIES

3 Ways to Register:

1. ONLINE: Go to www.fdla.net, click on the conference tab, then register online. Use your Master Card, Visa or AMEX.

2. FAX: This form with credit card information to (850) 906-0077

3. MAIL: Registration Form, Postmarked by April 19, 2017 to: 2017 Southern States Symposium & Expo (FDLA), 1401 Maclay Commerce Dr., Tallahassee, Florida 32312

Refund Policy: Written notification is required for all refunds. Refund requests received by April 19, 2017 will receive a refund less a $25 administrative fee. No refunds will be paid after April 19, 2017.

Southern States Symposium & Expo Dress Code: The dress code for the 2017 Southern States Symposium & Expo daytime workshops and courses is business casual (no t-shirts, tank tops or flip flops please).

Age Restrictions & Stroller Policy: No children in strollers or children under the age of 15 will be allowed access into the exhibit hall during booth setup, show hours or during booth dismantling.

ADA: If you have special needs that require accommodations, please notify FDLA in writing no later than April 19, 2017.

Southern States Symposium & Expo Dress Code: The dress code for the 2017 Southern States Symposium & Expo daytime workshops and courses is business casual (no t-shirts, tank tops or flip flops please).
2017 SOUTHERN STATES SYMPOSIUM & EXPO REGISTRATION FORM

Please print or type. Please photocopy form for additional registrants. See page 18 for options to register.

First Name: ____________________________ Last Name: ____________________________

Are you an authorized buyer for your dental laboratory? □ YES □ NO □ CDT □ RG □ DDS □ DMD □ Other: ____________________________

State of FL Dental Laboratory/Dentist License Number: ____________________________

Laboratory, Dental Practice or Organization: ____________________________

FDLA Matheson Memorial Golf Tournament

________________________________________________________
Foursome Requests: ______________________________________

Subtotal Due: $ __________________

Indicate Workshop(s): _____________________________________

*(Full Registration Required – Must Pre-register to attend)

Full Registration – May 12 & 13

Includes: Friday Keynote Sessions, Friday Lunch, Friday Night Reception, choice of Saturday courses, Saturday Lunch, unlimited admission to the Expo on Friday and Saturday

FDLA Member............... First Member: $295 ($325 after 4/19/17)
CDTs and Dentists............... $345 ($375 after 4/19/17)
Non-Member ...................... $550

❑ Add Friday Workshop* ......................................................$125
❑ Add Saturday Workshop* ..................................................$125

Subtotal Due: $ __________________

Friday on ly Registration – May 12

Includes: Friday Keynote Sessions, Friday Lunch, Friday Night Reception, unlimited admission to the Expo on Friday and Saturday

FDLA Member............... First Member: $195 ($225 after 4/19/17)
CDTs and Dentists............... $245 ($275 after 4/19/17)
Non-Member ...................... $450

Subtotal Due: $ __________________

Saturday Only Registration – May 13

Includes: Choice of Saturday courses, Saturday Lunch, unlimited admission to the Expo on Friday and Saturday

FDLA Member............... First Member: $175 ($200 after 4/19/17)
CDTs and Dentists............... $225 ($250 after 4/19/17)
Non-Member ...................... $450

Subtotal Due: $ __________________

Exhibits Only Registration

(Pass good for entry into Expo either Fri. or Sat. or both. Must register and receive a name badge to enter Expo Hall.)

FDLA Member............... $0 No Charge □ Non-Member ......$50

Additional Event Options

FDLA Friday Luncheon .................... $35 each ticket
FDLA Friday Night Reception ......... $50 each ticket
Saturday Box Lunch ...................... $35 each ticket

Golf Tournament – Thursday – May 11

FDLA Matheson Memorial Golf Tournament

(See pg. 12 for more details. Must register and pay in advance.)

❑ Conference Registrant or Exhibitor .............................................. $99
❑ Golf Only .................................................................................. $115
Handicap/Estimated Average Score
Foursome Requests:

Handicap/Estimated Average Score

Payment:

Sub-Total Due for Symposium & Expo: $ __________________

Foundation for Dental Laboratory Technology Donation: $ __________________

Total Enclosed: $ __________________

Check (payable to FDLA) Check # __________________

Credit Card: □ MC □ Visa □ AmEx Charge $ __________________

CC #: __________________

Exp: ____________ Security Code*: __________________

Cardholder Signature: __________________

Print Name: __________________

Billing Address (if different from above): __________________

Please refer to page 48 for registration information and expo policies.

For more information, contact FDLA’s Southern States Symposium office by phone at 866.873.3352 or email fdlareg@mcraemeetings.com.
I would like to nominate:

Name: ______________________________________________________________

to receive the Crowning Achievement Award during the 2017 Southern States Symposium & Expo presented by FDLA in Orlando, Fla. Based on his or her career accomplishments in the dental laboratory industry, the nominee should be considered in the area of (choose one):

- Education
- Inventions
- Laboratory Technology
- Manufacturing

- A brief statement describing the reasons for my nominee to be considered is enclosed.

Name ________________________________________________________________

Company _____________________________________________________________

Address ______________________________________________________________

City _________________________ State _________________ Zip ______________

Phone __________________________________________________________________

FAX ___________________________________________________________________

E-mail __________________________________________________________________

Signature ___________________________ Date ________________________

Return a copy of this form and supporting information to FDLA by April 15 to FDLA via e-mail to jillian@fdla.net, fax to (850) 222-3019 or mail to FDLA at 325 John Knox Rd, Ste L103, Tallahassee, FL 32303
Lab Supplies and Teeth
GREAT Prices!

The Atlanta Dental Lab Division is growing to meet your needs!

You will now see our Lab Division called...

ADS Lab Store

- Guaranteed Low Prices
- Same-Day Shipping
- Next-Day Arrival Anywhere in the USA
- Professional Lab Customer Service Agents
- We carry all major brands: Trubyte, Heraeus, Whip Mix, Keystone, Garreco, Snow Rock, Renfert, NSK, and many more!

Call 800.218.5447

Ask for Maggie, Indira, Edina or Zenaida

800.218.5447 • www.atlantadental.com
1650 Satellite Blvd • Duluth, GA 30097
Delta Zirconia gives you aesthetics and versatility critical to your dental restorations.

- ANTERIOR
- MULTILAYERED ANTIERIOR
- PRESHADDED TRANSLUCENT
- MULTILAYERED TRANSLUCENT

Aurident Delta Zirconia products are available in a large range of sizes.

ORDER NOW and take advantage of our new lower pricing and FREE DISC Special Offer.

800-422-7373

View our entire line at aurident.com

*Cannot be combined with any other special offers or discounts. No limits on purchases. Offer expires 6-1-17.