ENTAL TRIBUNE

The World's Dental Newspaper · U.S. Edition



MAY 2015 — Vol. 10, No. 5

www.dental-tribune.com

IMPLANT TRIBUNE

ZIMMER HOSTS IMPLANTOLOGY WEEK

Nearly 300 clinicians from 28 countries attend sixth annual event.

► page B1



COSMETIC TRIBUNE

AACD MEETING PUTS SCIENCE FIRST

Get up close with science at American Academy of Cosmetic Dentistry event.

► page C1



ENDO TRIBUNE

ROOT CANAL VIDEO

New messaging from AAE is intended to dispel myths about endodontic treatment.

► page D1



AAPD takes full advantage of Seattle location

Welcome reception features exclusive access to Space Needle, EMP Museum

Some of the top thought leaders in pediatric dentistry will be in Seattle May 21–24 for the American Academy of Pediatric Dentistry (AAPD) annual session.

Scientific sessions will be at the Washington State Convention Center, in the heart of downtown, adjacent to hotels, restaurants, nightlife and shopping. There are offerings for dentists, dental-team members and spouses. The AAPD is an ADA/CERPrecognized provider, with C.E. credit available on an hour-for-hour basis for most education sessions

Taking advantage of the location, the welcome reception on Thursday, May 21, will include exclusive access to the Space Needle, EMP Museum and Chihuly Gardens.

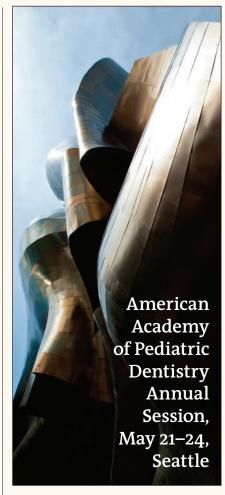
The keynote, on May 22, features Frank Abagnale with "The True Story of Catch Me If You Can." An authority on forgery, embezzlement and secure documents, Abagnale became an expert of sorts 40 years ago as a world-famous con man, as depicted in his best-selling book, "Catch Me If You Can." Leonardo DiCaprio and Tom Hanks starred in a Steven Spielberg film based on

Three-day exhibit hall

Products and services in the meeting's exhibit hall will be geared toward pediatric dental practices. The main AAPD booth (No. 517) will have a bookstore, which will have copies of the Handbood of Pediatric Dentistry available as a souvenir from this year's annual session. Also in the AAPD booth you can get an update on the evidence-based denistry guidelines and other EBD resources.

Also in the exhibit hall will be the Healthy Smiles, Healthy Children Donor Lounge, where you can learn more about Access to Care Grants and donate to the cause's supporting foundation.

► See SEATTLE, page A2



The Frank O. Gehry-designed EMP Museum comprises 21,000 aluminum and stainlesssteel shingles and 280 steel ribs. Attendees of the 2015 AAPD Annual Session welcome reception get exclusive access to the rock 'n' roll shrine. Photo/Provided by EMP Museum

EVENTS

A4

- In May: The Journées Dentaires Internationales du Québec presents courses in French and English
- AGD gathering features new continuing education tracks
- Premier Canadian conference is short flight away

INDUSTRY NEWS

A6-A7

- Air Techniques ScanX Swift: Digital radiography that seems designed for pediatric practices
- PNC Bank: Planning for partial retirement can be tricky
- Be the first to see the 'Visible Difference'

INDUSTRY CLINICAL

A8-A9

·Esthetic and functional treatment with implant-supported bar on a incongruous prosthesis carrier

IMPLANT TRIBUNE

B1-B3

COSMETIC TRIBUNE

C1–C3

ENDO TRIBUNE

D1-D6

LOOKING FOR ONLY ONE SIMPLE ANSWER? THE SOLUTION IS 1 a f(x) the Most Tooth-Like Composite Ever! = u; $(x^2 + a)^2$ $a = e^{i\theta}$ REF 2646 Trial Kit 8 X 0.25 Caps (2 X A1, 2 X A2, 2 X A3, 2 X A3.25) 1 X 1g Grandio SO Heavy Flow syringe A2, 1 X Dimanto Polisher Grand niversal Nano Hybrid Com \$65 VOCO Call 1-888-658-2584 · www.vocoamerica.com

Bellmawr, N.J. Permit No. 1259 US Postage Paid PRST STD

New York, N.Y. 10011 oog# sting 116 West 23rd Street Dental Tribune America

◆ SEATTLE, page A1

A hospitality area on the exhibit hall floor for all three mornings will offer a continental breakfast as well as complimentary beverages each morning and afternoon. Lunches will be for sale on Friday and Saturday. The exhibit hall hours are 9 a.m. to 5 p.m. on Friday and Saturday and from 9 a.m. to noon on Sunday.

Conference app

The 2015 AAPD event app includes a complete list of sessions, speakers, exhibitors, local attractions, facility maps and more. View the link posted on the AAPD website for the mobile website for Blackberry users or download the app from the Android Marketplace or the App Store.

A dedicated "Poster App" also will be available in the App Store in May. It will include all of the meeting's full-color posters from the "My Kid's Dentist Poster Research

Competition" in addition to the abstracts enabling you to sort by topic, track, day and presenter's research.

EMP Museum, Space Needle, Chihuly Gardens ... and 'Star Wars' costumes

With the Seattle Center as the site of the welcome reception, attendees will be able to wander though three separate venues. You can catch the views from the Space Needle observation deck and admire the intriguing glass artwork in the Chihuly Glass and Gardens Museum. And there is far more than just rock 'n' roll in the EMP Museum, including the traveling Smithosonian exhibit of orginal costumes from the "Star Wars" movies, "Art, Rebel, Jedi, Princess, Queen: Star Wars and the Power

You can register for the meeting online by visiting www.aapd.org/annual.

(Sources: AAPD, EMP Museum)



The AAPD welcome reception venue includes the EMP Museum, which isn't just rock 'n' roll. Among a number of traveling popularculture exhibits is an extensive collection orignal costumes from the 'Star Wars' movies. Photo/Provided by EMP Museum

DENTAL TRIBUNE

PUBLISHER & CHAIRMAN

Torsten Oemus t.oemus@dental-tribune.com

PRESIDENT & CHIEF EXECUTIVE OFFICER

Eric Seid e.seid@dental-tribune.com

 $Kristine\ Colker\ \textit{k.colker@dental-tribune.com}$

EDITOR IN CHIEF DENTAL TRIBUNE

Dr. David L. Hoexter feedback@dental-tribune.com

MANAGING EDITOR U.S. AND CANADA EDITIONS

Robert Selleck r.selleck@dental-tribune.com

MANAGING EDITOR

Fred Michmershuizen

f.michmershuizen@dental-tribune.com

Sierra Rendon s.rendon@dental-tribune.com

PRODUCT/ACCOUNT MANAGER

Humberto Estrada h.estrada@dental-tribune.com

PRODUCT/ACCOUNT MANAGER

Will Kenyon w.kenyon@dental-tribune.com

PRODUCT/ACCOUNT MANAGER

Maria Kaiser m.kaiser@dental-tribune.com

MARKETING DIRECTOR

Anna Kataoka a.kataoka@dental-tribune.com

EDUCATION DIRECTOR

 $Christiane \ Ferret\ \textit{c.ferret@dtstudyclub.com}$

ACCOUNTING COORDINATOR

Nirmala Singh n.singh@dental-tribune.com

Tribune America LLC 116 West 23rd St., Ste. #500 New York, N.Y. 10011

Published by Tribune America 2015 Tribune America, LLC All rights reserved.

Dental Tribune strives to maintain the utmost accuracy in its news and clinical reports. If you find a factual error or content that requires clarification, please contact Managing Editor Robert Selleck at r.selleck@ dental-tribune.com. Dental Tribune cannot assume responsibility for the validity of product claims or for typographical errors. The publisher also does not assume responsibility for product names or statements made by advertisers. Opinions expressed by authors are their own and may not reflect those of Tribune America.

EDITORIAL BOARD

Dr. Joel Berg

Dr. L. Stephen Buchanan

Dr. Arnaldo Castellucci

Dr. Gorden Christensen Dr. Rella Christensen

Dr. William Dickerson

Hugh Doherty Dr. James Doundoulakis

Dr. David Garber

Dr. Fay Goldstep

Dr. Howard Glazer

Dr. Harold Heymann Dr. Karl Leinfelder

Dr. Roger Levin Dr. Carl E. Misch

Dr. Dan Nathanson

Dr. Chester Redhead Dr. Irwin Smigel

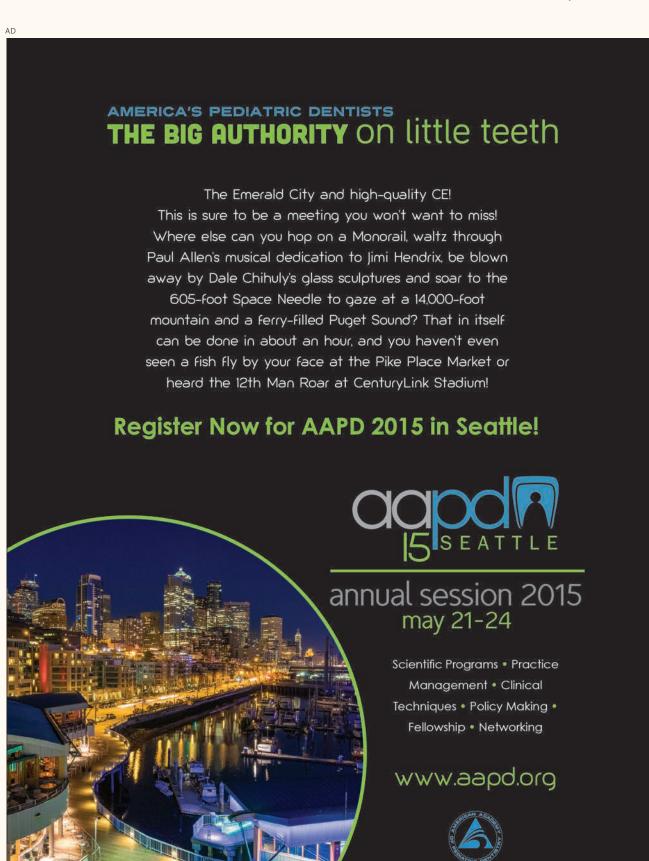
Dr. Jon Suzuki Dr. Dennis Tartakow

Dr. Dan Ward

Tell us what you think!

Do you have general comments or criticism you would like to share? Is there a particular topic you would like to see out in Dental Tribune know by sending an email to feedback@ dental-tribune.com. We look forward to hearing from you!

If you would like to make any change to your subscription (name, address or to opt out) please send us an email at c.maragh@dental-tribune.com and be sure to include which publication you are referring to. Also, please note that subscription changes can take up to six weeks to process.





Business Borrowing | for the achiever in you[®]

Get financing from a banker who understands your practice and the importance of cash flow to help it succeed. PNC provides dedicated and experienced Healthcare Business Bankers who understand the financial needs of a successful practice, so you end up with more than just a loan, you end up with customized financing solutions.

For more information about how you can optimize your practice's cash flow, contact a Healthcare Business Banker at 877-566-1355 or go to pnc.com/hcprofessionals







JDIQ courses in French/English

The Journées Dentaires Internationales du Québec, Canada's largest bilingual dental meeting, according to organizers, is from May 22-26 (Friday through Tuesday) in Montréal. Online registration is available at www.odq.qc.ca.

Meeting apps for Apple and Android phones and tablets can be downloaded through www.odq.qc.ca, the App Store or the Play Store. On-site at the meeting, free WiFi will be available to all delegates and exhibitors at the venue, the Palais des congrès de Montréal.

The meeting's educational program has more than 125 prominent speakers from Canada, the United States and Europe presenting approximately 175 educational sessions in English and French during the five-day convention.

Among the educational sessions: "Lights, Camera, Action! Patient Photography Made Easy — A Hands-On Workshop," "Endodontics for General Dentists: Advanced, Comprehensive and Practical Hands-On Training," "Oral Surgery for the General Dentist: Faster, Easier, and More Predictable" and "Hands-on Infection Control Workshop." Many other lectures and workshops are scheduled, with details in the program online.

225 companies, 500 booths

The exhibition hall will feature more than 225 companies in 500 booths in the 133,563-square-foot space.

More than 2,000 company representatives will be on hand in the exhibit hall to help dental professionals see, compare and make decisions on new furniture, equipment, instruments, techniques and other products and services — all under one roof.

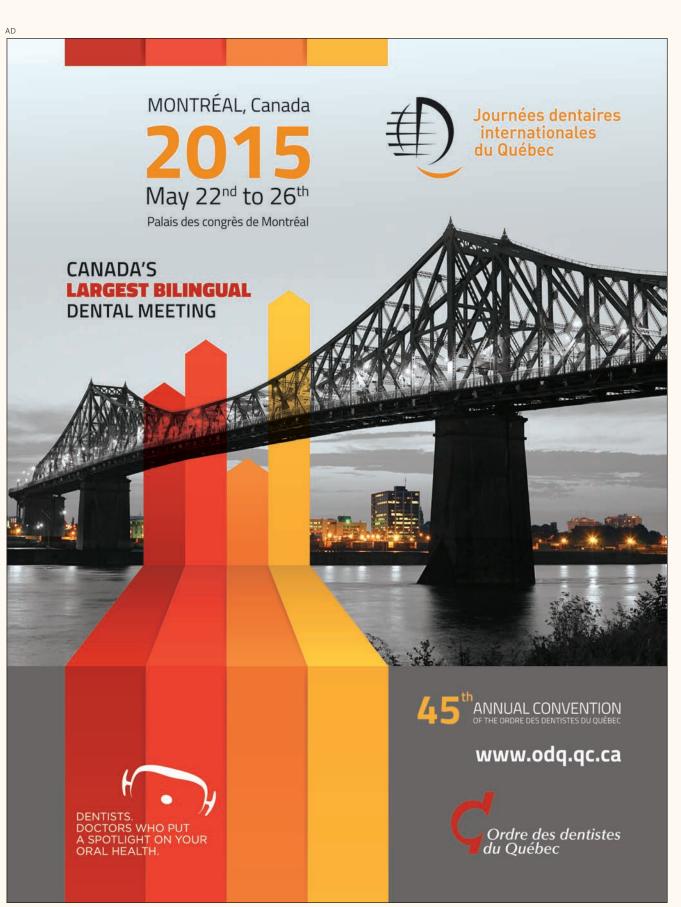
The exhibition hall hours are 8 a.m. to 6 p.m. on Monday, May 25, and 8 a.m. to 5 p.m. on Tuesday, May 26.

The organizers invite you to join the more than 12,000 expected delegates to meet, learn, share and enjoy this gathering of friends and colleagues.



JDIQ is May 22-26 at the Montréal Convention Centre (Palais des congrès de Montréal. Photo/MTTQ/Marc Cramer, Tourism Montréal

(Source: JDIQ)



AGD adds C.E. tracks to meeting

At AGD 2015, from June 18-21 in San Francisco, the Academy of General Dentistry (AGD) intends to not just embrace "constant change," but celebrate it.

The meeting, at the Moscone West Convention Center in San Fransisco, will showcase new technologies and C.E. courses for dentists and staff.

Keynote speaker Terry Jones, founder of Travelocity.com and Kayak.com and executive chairman of Wayblazer, will share insight on creating a culture of innovation and embracing opportunities in today's age of information. The presentation is sponsored by Colgate.

Innovation in the exhibit hall includes "Modern Practice for Today's Patients" presented by Henry Schein Inc. The display invites attendees to imagine the possibilities of a technologically enhanced office space. Visitors will be able to try out cutting-edge equipment, use patient management software and see esthetic options for transforming a practice space.

Clinical and research e-poster presentations feature captivating digital displays by today's dental students and residents presenting ideas for shaping the dental landscape of tomorrow.

New C.E. tracks will enable dental team members to focus on specific subject areas, such as endodontics, implants and special-patient care. Also new will be a 90-minute live-patient dental implant course hosted by Engel Institute founder Todd B. Engel, DDS, and fundamental and intermediate Invisalign® courses for dentists and their teams.

Friends and family can attend the "President's Celebration to Honor Fellows and Masters" for dining and live music and the AGD Foundation's "5K Fun Run/Walk" for oral cancer awareness and research.

Register at www.agd2015.org. The official hotel is the San Francisco Marriott Marquis. Early reservations are encouraged, at resweb.passkey.com/qo/AGD2015, (877) 622-3056 or (415) 896-1600.

A big idea for small mouths.

















ScanX sensors that fit 100% of your patients.

Only the #1 flexible phosphor sensor can give you all of this:



- Ability to fit patients with small mouths, large tori, and gag reflexes
- Faster image processing than film
- Better image resolution than film
- Exact same size and workflow as film
- Ultra-compact Swift for chairside use



SCAN N X Swift

Swift is ultra-compact for chairside use.



Scan the QR Code to watch a video on ScanX Swift and its benefits to the Pedo practice and its patients.





Digital radiography that seems designed for pediatric practices

By William F. Waggoner, DDS, MS, Pediatric Dentist, Las Vegas

Is there a technology you've come to rely on so much that you can't imagine how you ever got along without it? For me, that technology is digital radiography with flexible wireless sensors.

When I first started private practice, we used film radiography exclusively. After a few years, we invested in a wired digital sensor system. It didn't take long to realize that a large number of children, especially the young ones, couldn't tolerate the hard sensors. So, after a few months, we went back to film. For the next several years, I never gave it much thought, other than when my staff would complain about having to clean the chemical processor.

About eight years ago, however, I discovered and invested in ScanX phosphor storage plates — now more commonly called flexible digital sensors — for our two offices. Manufactured by Air Techniques, the small, soft, flexible, wireless ScanX sensors are comfortable for any pediatric patient who can tolerate a film radiograph, unlike hard sensors.

Recently, Air Techniques introduced the ultra-compact ScanX Swift, which I obtained for a third pediatric office that we just opened. Here are 12 advantages I have come to appreciate about ScanX in general, and this new Swift model in particular:

1) Excellent image resolution. ScanX images enhance your case acceptance by helping you show the patient's parent the extent and location of any problems.

2) Faster image processing. All ScanX models process images in literally seconds, a mere fraction of the time it takes using film.

3) Larger image area. The image area with ScanX is up to 38 percent larger than with a wired sensor. This makes you much more likely to capture the complete coronal-to-apical length and not miss a root apex or distal cusp, which means fewer retakes.

4) Easy image manipulation. Brightness and contrast can easily be manipulated, and areas of the film can be magnified for better viewing and diagnosis.

5) Same placement technique as film. ScanX digital sensors are placed in the patient's mouth just as X-ray films are.

6) Easy software integration. ScanX

software integrates easily with most imaging software.

7) Less radiation. Wth ScanX, the X-ray exposure can typically be 80-to-85 percent less than that required for film, which is something your patients' parents will appreciate.

8) Quick image review and saving. When you view the scanned image, within seconds you can determine if you've captured the desired image. With a couple of keystrokes, you can then save the image into the patient's electronic chart.

g) Digital storage and transmission. Electronic charts eliminate the need to store X-rays in bulky manila files and space-hogging file cabinets and allow instantaneous transmission through email.

10) No chemicals. With ScanX you don't have to deal with and pay for costly film packs and messy chemicals, or deal with the hassle of chemical disposal.

11) Affordability. ScanX sensors are a fraction of the price of hard sensors and can be reused hundreds of times. There's also no need for costly insurance or annual maintenance.

12) Chairside compatibility. The compact size of the ScanX Swift processor makes it perfect for chairside use or for placement



ScanX sensors are 30 times thinner than wired sensors, so they'll fit even the smallest mouth. Retakes are easy because of the speed with which images are scanned and available. Photo/Provided by Air Techniques

just about anywhere in the office.

If I had to pick the most important advantage of using the ScanX Swift, it's the fact that its sensors can be used with 100 percent of the children who can tolerate regular film X-rays. ScanX sensors are 30 times thinner than wired sensors, so they'll fit even the smallest mouth. If you ask my staff, however, their favorite advantage of the ScanX Swift would probably be the fact that the images are scanned and available so quickly, so if a retake is needed, they know it almost immediately.

If you explore digital radiography with flexible wireless sensors, I'm confident that you too will soon be wondering how you ever got along without it.

Planning for partial retirement can be tricky

By Nicholas Spanakis, Group Practice Manager, PNC Bank

If you want to keep working, only on a less demanding schedule, you're not alone. Many people these days are considering a "partial retirement." According to a University of Michigan study, 20 percent of those ages 65 to 67 consider themselves partially retired, while in 1960 this group was nonexistent.

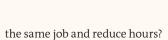
The reasons for this trend vary: Some partial retirees need to prolong income to support their lifestyle, but others simply enjoy their work and don't want to stop.² Can you participate in this trend? Possibly — but it takes planning. To help you clarify your goals and how to reach them, consider drafting a partial retirement plan.

Having a 'planned duration' helps

The process of retiring, especially partially, is complicated for dental professionals, largely because of their practices. If you're the owner of a private practice, a partial retirement must be planned well in advance, and generally is more successful if there is a planned duration.³ But whether you're negotiating with partners to scale back, looking for possible buyers to take over your practice or considering moving into an entirely different part-time job, planning is crucial.

Consider the following questions and discuss them with your business and life partners. Then share the answers with your accountant/financial professional.

 \bullet Do you want to change jobs, or stay at



• Have you made a financial plan that takes into account the reduced compensation resulting from fewer hours?

• Have you spoken with your financial advisor to prepare for partial retirement?

• Have you communicated your plans to your life partner and your business partners?

Once you've discussed these questions with all the players, the next step is to sit down with your accountant or financial professional and draft an actual plan for your proposed retirement.

This plan should cover financial matters, including how much you expect to earn and how that will cover your living expenses; work responsibilities including scheduling, such as on-call hours, regular hours worked and patients taken on; the expected duration of this arrangement; how a change in work habits will affect the ownership of the practice; and a clearly stated plan for the eventual transition to complete retirement.⁴

All of the above goes double if you're in a solo practice and plan to eventually sell or hand down your practice to the next generation. Preparing a business for sale takes years if you want to get the best price, and both you and your patients will benefit from long-term planning.

Nicholas Spanakis, group practice manager with PNC Bank, can be reached by phone at (866) 356-6916 or by email at nicholas.spanakis@pnc.com

Disclosures

The third-party trademarks referenced in these articles are owned by and are the registered trademarks of their respective third-party owners. There is no affiliation, sponsorship or endorsement relationship between PNC or its affiliates and any such third party.

PNC is a registered mark of The PNC Financial Services Group Inc. ("PNC").

This article was prepared for general information purposes by McMurry/TMG, LLC and is not intended as legal, tax or accounting advice or as recommendations to engage in any specific transaction, including with respect to any securities of PNC, and do not purport to be comprehensive. Under no circumstances should any information contained in this material be presented be used or considered as an offer or commitment, or a solicitation of an offer or commitment, to participate in any particular transaction or strategy or should it be considered legal advice. Any reliance upon any such information is solely and exclusively at your own risk. Please consult your own counsel, accountant or other advisor regarding your and

tant or other advisor regarding your specific situation.

Neither PNC Bank nor any other subsidiary of The PNC Financial Services Group, Inc. will be responsible for any consequences of reliance upon any opinion or statement contained here, or any omission. The opinions expressed in this article are not necessarily the opinions of PNC Bank or any of its affiliates, directors, officers or employees. Banking and lending products and services, bank deposit products, and Treasury management products and services for health care providers and payers are provided by PNC Bank, National Association, a wholly-owned subsidiary of PNC and member FDIC.

Lending and leasing products and services, including card services and merchant services, as well as certain other banking products and services, may require credit approval.

► References

- 1 blogs.marketwatch.com/encore/2013/11/15/ the-rise-of-the-partial-retirement/
- 2 www.benefitspro.com/2013/11/18/more -americans-opting-for-partial-retirement
- medicaleconomics.modernmedicine.com/ medical-economics/content/modernmed icine/modern-medicine-feature-articles/ exit-and-succession-planni?page=full
- 4 www.thehealthcaregroup.com/PDF/92839.



Be the first to see the 'Visible Difference'

Designs for Vision is introducing a 3.5 expanded-field dental telescope that can be used all day, the Micro 3.5ef Scopes. The Micro 3.5ef Scopes uses a revolutionary optical design that reduces the size of the prismatic telescope by 50 percent and reduces the weight by 40 percent,

AACD BOOTH NO. 1613

AAPD BOOTH NO. 813

BOOTH NO. 724 Designs for Vision this year is launching its Micro 3.5ef Scopes and featuring the Nike Retro and DVI Sport frames. Also available for you to check out in the company's exhibit-hall booths at a variety of major dental meetings will be the recently introduced NanoCamHD loupe-mounted video camera. Photo/Provided by Designs for Vision

while providing an expanded-field, full-oral-cavity view at 3.5x magnification. "We listened to dentists who wanted the field of view of an expanded-field 3.5x telescope, but were concerned about wearing them all day because of the size and weight," said Designs for Vision President Richard Feinbloom. "Designs for Vision was started by my father, Dr. William Feinbloom, as an optical company in 1961 to design innovative head-borne optical devices, and the new Micro 3.5ef Scopes continues that tradition of optical innovation. We're excited to be offering several new products this year, including our NanoCamHD™ loupe-mounted video camera, and two new frames: Nike® Retro and DVI Sport

Designs for Vision's new NanoCamHD records digitally at 1080p highdefinition resolution. The NanoCamHD records magnified HD images from the user's perspective. The complete system includes 2.5x, 3.5x, and 4.5x lens systems to match the magnification dental professionals are already using — and providing a true user's point of view.

As an added feature, still photographs can be taken from live video feed or during playback. Video or still images can be uploaded into a patient file, included in presentations or courses, or shared with a colleague or lab for collaborative consultations.

The NanoCamHD complete system includes a color-corrected ULTRA Mini LED Day-Lite® headlight. The combination headlight/NanoCamHD can be attached to your loupes or it can be worn on a lightweight headband.

The system also includes a foot pedal to enable hands-free operation of the Nano-CamHD. Record/pause, mute/unmute and still photography are controlled by the operator hands-free via the foot pedal. For best results, combine the NanoCamHD with Designs for Vision's dental telescopes — matching true magnification levels of 2.5x, 3.5x or 4.5x to produce the most realistic simulation from the user's perspective.

Designs also is introducing two new frame offerings this year: The DVI Sport and the

Nike Retro. The Nike Retro frames are exclusive to Designs for Vision, which describes them as having "a classic look and excellent function." The frames are available in tortoise shell, black and translucent gray.

The DVI Sport frames can be used for all magnifications and can incorporate eyeglass prescriptions — providing the protective wrap without any distortion. The NanoCamHD can be attached to the new Nike Retro or DVI Sport frames.

Be the first to "See the Visible Difference®" by contacting Designs for Vision at info@ DesignsForVision.com or (800) 345-4009 for a demonstration in your office. You can visit Designs for Vision in exhibit halls at upcoming meetings: American Association of Endodontists (booth No. 724); American Academy of Cosmetic Dentistry (booth No. 1613), American Academy of Pediactric Dentistry (booth No. 813); and the Texas Meeting (booth No. 1169).

(Source: Designs for Vision)



Esthetic and functional treatment with implantsupported bar on an incongruous prosthesis carrier

Quick lab work creates complete-denture retention system on implants

By Carlo Borromeo, Dental Technician, Italy

Introduction

The patient, a 74-year-old female with an older, total prosthesis, asked us to improve esthetics and function of both the upper and lower prostheses. In the initial exam, we noticed a marked difference between the total upper prosthesis (all but ruined) and the lower total prosthesis (recently manufactured across four implants). We also saw im-

mediately that the prosthesis was incorrectly mounted, occupying too much space and leaving the teeth too exposed (Fig. 1).

After discussions with the patient, we agreed to remount both the upper and lower teeth to obtain optimal esthetic results and restore mastication function. Based on the specific demands of the case, we identified the best retentive-connection system to connect with the implants and provide the necessary over-structure, support and thickness.

Case planning

Impressions were taking to obtain vertical and centric dimensions. Once the design met the patient's need for improved esthetics and function, the dental technicians created vestibular and lingual silicon masks to guide the building of the structure and over-structure. Space availability was evaluated with teeth and implants position. These analyses enabled identification of the proper prosthetic treatment to choose.

A working model was placed under the



Fig. 1: Patient during first clinical session.

Photos/Carlo Borromeo

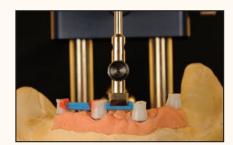


Fig. 2: Positioning of the OT Bar.



Fig. 3: Checking of the dimensions using the vestibular plaque.



Fig. 4: Check of the precision of the bar on the model before finishing.



Fig. 5: Check of the spaces for pipe cleaner.

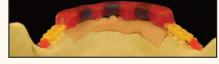


Fig. 6: Superstructure completed on model.

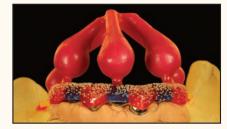


Fig. 7: Spruing of superstructure on model.



Fig. 8: Re-application of teeth using plaques.



Fig. 9: Positioning of model in the mitten for creation of a resin-made prosthesis.



parallelometer to identify the proper insertion plan. Different aspects were evaluated: the horizontal line of the incisors, the occlusion line of the posteriors, the under spaces by the areas under the frontal ridge and the implants' angulation. Once the insertion plan was finalized, castable pivots were regulated with proper height and screwed, guided by the silicon mask. Next came creation of the castable bar by setting it — area-after-area — using resin to fix it at the external areas (Fig. 2).

Starting the sprue procedure

Once all the parts of the structure were connected, we regulated the areas over the implants using a two-degree bur. The technician then checked everything using the silicon masks (Fig. 3). After we confirmed that the bur met all our expectations, we started the sprue procedure. We proceeded with the fusion through a special press-fusion procedure.

Once it was verified that the bar respected all the desired characteristics, we continued with the spruing, directly on the model to avoid distortions during the cooling of the wax. We then proceeded with the melting, using the "die-casting" technique. We conducted a first test immediately after cleaning the coating (Fig. 4).

Delivery of finished artifact to completion of final prothesis

The finished artifact was delivered to the clinic, where the necessary tests and radiographs were obtained. Once verified that all the parameters were correct and that the structure was passive, the bar was milled and polished at the lab. On the model, spaces were verified for the application of pipe cleaners. This same test would be conducted later in the patient's mouth (Fig. 5).

Using the silicon plaques, we built the superstructure directly on the bar, starting by positioning the containers of the caps. Castable boxes were applied onto those, always using the silicon plaques. After avoiding the undercuts with wax, we isolated the bar and the model and then built the superstructure using resin (Fig. 6). We removed it from the superstructure and pasted the retentions. Everything was set up to proceed with the spruing directly on the model (Fig. 7).

After the coating was melted off, precision and friction was verified using a revealing-paint on the bar. The teeth were applied with the aid of silicon masks (Figs. 8, 9). The containers of the clips continued to be replaced with pink caps.

Everything was delivered to the clinic for the final test. With the prosthesis back at the laboratory, wax fittings were converted to resin fittings and the superstructure was finished and polished (Fig. 10). After applying it again on the superstructure, undercuts were closed with some wax, and the resin was applied to the prosthesis (Fig. 11). All the components of the prosthesis were polished and delivered to the clinic for the final test (Figs. 12, 13).

Conclusions

With adequate components, retention systems on implants and readily available technical and clinical knowledge and resources on complete dentures, you can obtain excellent results in short work times, using both traditional systems and CAD/CAM.



Fig. 10: Polishing of the structure.



Fig. 12: Finished prosthesis and bar.



Fig. 11: Insertion of the pink caps in the structure.



Fig. 13: Final results after attaching bar and applying prostheses.

AD



CARLO BORROMEO founded Dental Laboratory Borromeo in Italy in 1988, specializing in the construction of prosthesis for implants using CAD/CAM. He collaborates with Nobel Biocare Procera, Dental Wings, Rhein'83 and other companies to improve his expertise with their materials. He is a highly published industry author and presents and participates in many dental lab courses and conferences.







Jeff Coil, DMD, MS, PhD, FRCD(C), FADI, FACD, Diplomate, American Board of Endodontics

Course #1501
Efficient and Effective
Endodontics

Saturday, May 30, 2015 8:00am to 4:30pm

James Kohner, DDS

Course #1502 Hands-On Gingival and Connective Tissue Grafting Friday, July 17, 2015

Saturday, July 18, 2015

8:00am to 4:30pm

8:00am to 4:30pm

Course #1503

Crown Lengthening
Hands-On Surgical Workshop

Watch for other summer Hands-On courses



Join us next year March 17-19, 2016

Online registration opens October 15th, 2015





In conjunction with the Canadian Dental Association

www.pdconf.com