Specialists in oral and maxillofacial surgery have extra training and expertise that most general practitioners don’t. GPs refer cases to the specialist when they feel they can’t provide the patient with the best care and a specialist is needed. This relationship has worked well for many decades in dentistry. However, various factors have changed how GPs practice. Some GPs don’t refer as much oral surgery as they once did, preferring to keep it in their operatory and in their revenue streams. Some GPs are taking on more complicated cases than in the past and exploring new areas of oral surgery, such as complex extractions and implant dentistry. In some ways, the relationship between the GP and specialist is evolving. As lines continue to blur between some GPs and specialists, we spoke to clinicians to get a clearer picture of how this critical field is changing.

The driving factors for doctors’ decision to refer or not:

Economics is an obvious influence on the decision whether to refer a patient to a specialist. Oral health-care providers (OHCPs) are trying to find the right treatment mix to combat the low reimbursement levels from insurance companies.

*See oral surgery, page 28*

**The Evolution of Oral Surgery**

**EDITORS’ CHOICE**

**Implant surgery**

**and surgical guides:** How hard can it be?

When I was in dental school 20 years ago, dental implants were a bit “taboo,” if you will. They weren’t the most sought-after procedure, but they were being placed in our periodontal and oral surgery clinics from time to time. In fact, implant dentistry got its start here in the United States when implant courses were available to surgeons only — they weren’t even offered to general practitioners. Today, there are implant courses for all levels of practitioners and these vary from courses that are a few days long to ones that last a year or more.

Years ago when implants were being placed, a “surgical” guide or template was fabricated to help “guide” the placement of the implant/implants. This was used to place radiographic markers such as lead foil and metal marking balls, and then a panoramic 2D X-ray was taken, or, if you were really high-tech or had it available, you could get a tomogram done to look at the bone in a new dimension.

...See implant surgery, page 6

**by Terri Lively**

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EVERY SHADE, ONE CHOICE
Implant surgery and surgical guides: How hard can it be?

DR. JEFF LINEBERRY
When I was in dental school 20 years ago, dental implants were a bit "taboo," if you will. They weren’t the most sought-after procedure, but they were being placed in our periodontal and oral surgery clinics from time to time. In fact, implant dentistry got its start here in the United States when implant courses were available to surgeons only — they weren’t even offered to general practitioners. Today, there are implant courses for all levels of practitioners and these vary from courses that are a few days long to ones that last a year or more.

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...See implant surgery, page 6

THE EVOLUTION OF ORAL SURGERY

The questions every general dentist must answer about oral surgery.

by Terri Lively

Specialists in oral and maxillofacial surgery have extra training and expertise that most general practitioners don’t. GPs refer cases to the specialist when they feel they can’t provide the patient with the best care and a specialist is needed. This relationship has worked well for many decades in dentistry.

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In some ways, the relationship between the GP and specialist is evolving. As lines continue to blur between some GPs and specialists, we spoke to clinicians to get a clearer picture of how this critical field is changing.

The driving factors for doctors’ decision to refer or not
Economics is an obvious influence on the decision whether to refer a patient to a specialist. Oral health-care providers (OHCPs) are trying to find the right treatment mix to combat the low reimbursement levels from insurance companies.

...See oral surgery, page 28
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Primescan

Primescan, an intraoral scanner with outstanding technology, is designed to enable scans that are more precise than anything seen before. The scan of the surfaces of the teeth is done with high-resolution sensors and shortwave light, reportedly capturing up to 1 million 3D data points per second. With Primescan, it’s also possible to scan deeper areas (up to 20 mm), which enables digital impressions even for subgingival or particularly deep preparations. Primescan is engineered to capture the dental surfaces immediately, in the required resolution and with a high sharpness even at great depths.

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Primescan sets new standards in digital dentistry. Intraoral scanning is now more accurate, faster and easier than ever. It’s easy to handle, immediately ready to use and offers dentists to make use of many digital workflows. Thanks to the brand-new high-frequency contrast analysis, more data is captured in higher resolution and quickly processed in perfect sharpness and with outstanding precision, which allows indications from single-tooth to full-arch treatments. Primescan is the starting point for treatments in prosthodontics, orthodontics and implantology.

— Dr. Alexander Völcker, group vice president, CAD/CAM and orthodontics, Dentsply Sirona

Dentsply Sirona
844-848-0137
dentsplysirona.com
CIRCLE RS #2

PromiseVision 3D™ surgical microscope

The PromiseVision 3D™ surgical microscope is said to feature unprecedented depth of field (up to 60 mm) and field of view (up to 120 mm for full-arch view). A natural, intuitive 3D image is created with normal depth perception and no loss of clarity. Elimination of the biocular eyepieces is said to improve productivity and patient awareness. A full HD moniter is included for best possible 3D image resolution, and fastest image processing available ensures no latency in the video image.

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— Dane Carlson, medical division manager, Seiler Instrument & Manufacturing Co.

Seiler Instrument & Manufacturing Co.
800-489-2282
seilermicro.com
CIRCLE RS #3

3M™ Chairside Zirconia

3M™ Chairside Zirconia is a new CAD/CAM zirconia block optimized for the fast-sintering CEREC® SpeedFire Furnace. The new block is said to offer an optimal blend of high strength and esthetics to go along with a fast sintering time of approximately 20 minutes for a thin-walled crown. For easy shade matching, the material is available in eight different shades and two block sizes designed for crowns and three-unit bridges to match the Vita® classical shades. Due to its low minimum wall thickness of 0.8 mm, dentists are said to be able to carry out less invasive preparations and preserve more tooth structure.

How does this product stand apart from similar options on the market?

With 3M™ Chairside Zirconia, you don’t have to sacrifice esthetics for strength or vice versa. Additionally, the new material’s balanced blend of durability and esthetics is optimized for fast firing in the CEREC® SpeedFire Furnace, approximately 20 minutes for a thin-walled crown.

— Eric Wenzel, global business director, 3M Oral Care

3M™
800-634-2249
3M.com/chairsidezirconia
CIRCLE RS #4
THE EVOLUTION OF ORAL SURGERY

The questions every general dentist must answer about oral surgery.

We spoke with leading clinicians about the cases GPs should treat and which require the expertise of a specialist.

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SURGICAL GUIDES HELP, BUT TRAINING IS KEY TO IMPLANT SUCCESS

Continued from cover...

This was then taken to the patient’s mouth where we would anesthetize the patient, make a nice incision and expose the bony ridge, hoping to find enough bone where we were going to place the implant. We’d use the “guide” for the initial osteotomy, and then overlay the surgical guide over guide pins to help “verify” the placement of the implant.

My journey in implant dentistry started right after school by working with surgeons who were placing them on a regular basis, and then I simply restored the patient. After a few years, I took the plunge and completed a nine-month-long surgical implant course. Over the years, I went from placing implants with a flap.

I’ve gained if you want to surgically place implants:

Proper education is key, like everything else we do in dentistry. Like the old saying goes, “You only know what you know, and you only see what you know.” In my opinion, a quick two-day course can’t help you “know” everything you need to “see” in implant surgery. So, find a respected course that allows you ample time to learn the principles of proper implant placement.

As Clint Eastwood wisely said once, “A man has to know his limitations.” The same is true in all of dentistry whether it’s root canals or implants. In order to know your limitations, you have to “know” and “see” things at a level to be able to do this.

Surgical principles don’t change whether it’s a guided surgery or not. In other words, you have to be comfortable with doing the surgery, know the ins and outs of anatomy, bone and tissue support that’s required, and all of the steps involved. You also have to be able to manage the potential complications that arise during and after the surgery. If not, then you should reconsider doing the surgery or get training to help you be more competent and comfortable.

3D scans and proper presurgical treatment planning are standard of care, period. Surgical guides aren’t “foolproof!” Remember, even if you have a lab or company fabricate the guide, ultimately, you’re responsible for the end result.

Start out simple and find a specialist who you can refer more difficult cases to and work alongside him or her. It’s amazing to me how many general dentists will send out difficult cases to their specialists, but they will not approach the same specialist for help and guidance, fearing that he or she will be chastised for doing the surgery.

I’ve found most, if not all, specialists who I’ve worked with are more than happy to help you when it comes to the surgical aspect of things. This relationship that’s built upon discussing challenges and difficulties among general dentists and specialists leads to a better understanding and growth between both parties and, ultimately, leads to better patient care.

[ Dr. Jeff Lineberry ]

DPR Editorial Advisory Board member

Correction

An image was incorrectly labeled Fig. 4 in the article “How to restore dental decay with KaVo Kerr materials” that appeared in the February 2019 issue of Dental Products Report. To read the correct version of the article, please visit http://bit.ly/KaVoMaterials.

[ Our Mission Statement ]

Dental Products Report—known for its trusted new product information—delivers a sharp focus on high-tech innovations and their implementation as well as how cutting-edge technologies are transforming practices. DPR helps dentists future-proof their practices and position themselves to deliver the best dentistry possible to benefit both their patients and their practices. We are committed to delivering unbiased, quality content.
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4 tips for creating a strong bond

When it comes to bonding a restoration, failure isn’t an option. Learn more: http://bit.ly/4BondingTips

How to set proper denture expectations

Getting dentures isn’t always realistically envisioned by patients, but you can help them to prepare for the transition. Read more: http://bit.ly/DentureExpectations

What does filler size have to do with composites?

More than you might think

Discover how advancements in materials and the size of glass fillers have improved composites’ mechanical properties. Learn more: http://bit.ly/FillerSize

Clicks & Picks

What dentists were searching and savoring in March

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3 MOST-VIEWED PRODUCTS

01 MI Paste Plus®
   GC America

02 3M™ Chairside Zirconia
   3M™

03 TheraCal LC®
   BISCO

3 MOST-READ ARTICLES ONLINE

01 The top 8 dental movies of ALL time
   by Nicholas Hamm

02 5 mistakes you might be making with composites
   by Terri Lively

03 6 emerging technologies that will change dentistry forever
   by Ryan Hamm

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An intraoral scanner combining superior scanning technology with caries detection.

**[ INTRAORAL SCANNER ]**

### TRIOS® 4

The new 3Shape TRIOS® 4 combines superior scanning technology with groundbreaking caries diagnostic aid technology for both surface and interproximal caries. It has built-in fluorescent technology that’s designed to aid in the identification of possible caries. Later this year, TRIOS 4 will feature a dedicated transillumination smart tip that will reportedly aid in the identification of possible interproximal caries undetectable to the eye, without emitting radiation.

3Shape
908-867-0144 | 3shape.com/en
CIRCLE RS #8

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**[ CURING LIGHT ]**

### Bluephase® G4

Bluephase® G4 is said to be the first intelligent LED curing light. Its automated assistance system is engineered to detect if the handpiece moved during the curing process and the restoration can no longer be cured reliably. Depending on the extent of movement, the Bluephase G4 Polyvision™ either emits a vibration alert to inform the operator of the error and, if necessary, automatically extends the curing time by 10 percent, or—if the handpiece moves too much—interrupts the curing cycle by automatically shutting off.

Ivoclar Vivadent
800-533-6825 | ivoclarvivadent.com
CIRCLE RS #9

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**[ TELEDENTISTRY ]**

### TeleDent™ 2.0

TeleDent™ 2.0 is said to support more locations and larger referral networks and offer better controls for internal and external users. One of the most significant features included in the update is an API architecture that’s designed to enable easy connectivity and integration with practice management, digital imaging and EHR systems. TeleDent 2.0 also now supports appointment management for teledentistry encounters.

MouthWatch
877-544-4342 | mouthwatch.com
CIRCLE RS #10

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**[ DENTAL BUR ]**

### NeoBurr 330° blended neck® carbide

Following suit with the 557°, the section of the 330° bur between the cutting head and the shank is blended, so there’s no reduction in neck width. This design, coupled with the removal of the weld joint, is said to increase the strength of the bur. The innovative design is engineered to remove any weak points in the bur’s neck that might otherwise cause breakage.

Microcopy Dental
800-235-1863 | microcopydental.com/neoburr-carbides
CIRCLE RS #11
Stratasys J720 dental 3D printer
The new Stratasys J720 dental 3D printer is engineered to create faster turnaround times so dental labs can streamline operations, fulfill more cases and grow new business without further capital expense. Backed by more than 500,000 color combinations, the multi-material 3D printer is said to produce extremely high-resolution, patient-specific models with precise accuracy. A large build tray is designed to print six materials simultaneously.
Stratasys
800-801-6491 | stratasys.com/3d-printers/j720-dental
CIRCLE RS #12

CS 3100
Combining highly precise four-axis wet milling with top-of-the-line CAD software, the self-contained CS 3100 is designed to deliver accurate and durable restorations for doctors seeking to offer patients same-day solutions. The CS 3100 is said to be ideal for the milling of full-contour crowns, full-contour bridges, inlays, onlays and veneers using hybrid resin, ceramic, and zirconia. For the optimal chairside experience, exocad ChairsideCAD software is completely integrated with the CS Solutions platform.
Carestream Dental
800-944-6365 | carestreamdental.com
CIRCLE RS #13

quip kids electric toothbrush
quip announces the launch of the first American Dental Association accepted kids electric toothbrush with a refill plan. The kids electric toothbrush has all the same guiding features of the original quip, thoughtfully tweaked for smaller mouths and hands. Gentle vibrations are said to be safe on gums, and the soft bristles are made safe for gums and braces. The lightweight plastic handle is designed to be easy to hold, comfortable and non-slip for smaller hands. The toothbrush is engineered to last three months on a single charge.
quip
888-636-7847 | getquip.com
CIRCLE RS #14

EndoSequence® BC Liner™
EndoSequence® BC Liner™ is a next-generation bioactive hybrid resin optimized for use as a base/liner material over the top of BC Sealer and/or BC RRM (Root Repair Material). Unlike BC Sealer and BC RRM, BC Liner is dual-cure and designed to bridge the gap between pure calcium silicate-based bioceramics and more user-friendly, light-curable bioactive restorative materials. This versatile and durable (241 MPa) material is engineered to chemically bond to dentin without the need for a bonding agent.
Brasseler USA
800-841-4522 | brasselerUSA.com
CIRCLE RS #15
Add an element of speed and convenience to your practice with this single-dose coupling agent.

[ COUPLING AGENT ]

Ceramic Bond SingleDose
In addition to Ceramic Bond’s ability to create a strong and durable bond between ceramic and resin-based cements, practitioners can now add an element of speed, hygiene and convenience with the availability of Ceramic Bond in a single-dose blister pack. It’s formulated to be versatile and achieve optimal adhesive levels for a permanent bond between indirect restorations made of a wide variety of materials. It reportedly requires no additional devices and doesn’t need to be mixed before use.

VOCO America
888-658-2584 | vocoamerica.com
CIRCLE RS #16

Add an element of speed and convenience to your practice with this single-dose coupling agent.

[ APEX LOCATOR ]

NEO
NEO, a patent-pending Apex locator the size of a smartwatch, is reportedly the world’s smallest Apex locator. The ergonomic NEO can be attached to the included finger ruler to always be within field of view. It also has the option to be clipped to the included stand or onto a patient’s bib. NEO’s easy-to-read color touchscreen is designed to be operated with a gloved finger to choose display styles, set working lengths, turn the audio alert on or off, and set the available timer.

Good Doctors USA
844-448-5050 | gooddrs.us
CIRCLE RS #17

Add an element of speed and convenience to your practice with this single-dose coupling agent.

[ RETRACTORS ]

Photo-CAD
Photo-CAD retractors are said to be an innovative design that allows for best results with photography of the four quadrants and during digital impressions with CAD/CAM systems. Photo-CAD can be ergonomically folded and adapted to the patient’s mouth. Photo-CAD Low is designed to allow for retraction of both the cheek and tongue in the same use during an occlusal image capture of the lower quadrant. Photo-CAD Up is a cheek retractor that can be used every day.

Smile Line USA
877-755-6868 | smilelineusa.com
CIRCLE RS #18

Add an element of speed and convenience to your practice with this single-dose coupling agent.

[ MARKETING ]

Outfox Video
Outfox Video provides a comprehensive solution for small business owners in need of video advertising at a low cost. Outfox’s software is engineered to allow users to upload their company-specific logo and information to any pre-made videos and checkout within minutes, kickstarting a video marketing campaign in record time. Fully finished, each video is said to be complete with live action, sales-driven copy and energetic music tracks.

Outfox Video
619-375-1988 | outfoxvideo.com
CIRCLE RS #19
Osstell IDx Pro
Osstell IDx Pro is said to combine a wireless, smart and intuitive ISQ probe and a comprehensive user interface for implant stability visualization with patient data storage and full connectivity. It gives access to Osstell Connect, an exclusive online portal, safekeeping data and providing relevant key insights that reportedly allows clinicians to enhance their implant treatment performance. Osstell gives indications as to when each implant is ready to be restored both with temporary solutions and the final restoration.

Osstell
833-677-8355 | osstell.com
CIRCLE RS #20

TruNatomy™
Combining Swiss precision and advanced engineering, the TruNatomy™ range offers clinicians a solution that reportedly provides efficient performance and increased respect of the tooth anatomy combined with a smoother user experience. TruNatomy is said to address the need of preserving dentin thanks to its slim, highly flexible alloy wire and regressive taper. It’s designed to enable clinicians to provide a smooth, predictable root canal treatment even in cases with curved canals or limited straight line access.

Dentsply Sirona
844-848-0137 | dentsplysirona.com
CIRCLE RS #21

Great White Lab Series carbide burs
The Great White Lab Series carbide burs are said to offer 10 times increased durability and longevity with an extremely hard cutting surface of 2,800 Vickers. Abrasion resistance reportedly reduces surface heat and vibration for a cooler, more consistent surface finish. The series offers a comprehensive selection of shapes, sizes and grits, manufactured with tungsten carbide heads and stainless steel shanks.

SS White Dental
800-535-2877 | sswhitedental.com
CIRCLE RS #22

Visalys® CemCore
The Visalys® CemCore system is designed to enable both adhesive cementation and core buildup to be achieved with just a few components. Active Connect Technology is said to allow optimal mixing of the somewhat hydrophobic cementation composite, Visalys CemCore, with the hydrophilic Visalys® Tooth Primer, on the damp surface of the tooth. Visalys CemCore is engineered to flow superbly into every clearance yet display a high degree of stability.

Kettenbach
714-892-9820 | kettenbach.us
CIRCLE RS #23
Changing the implant workflow
[compiled by Kristen Mott]

Roughly 3 million people in the United States have implants, and that number is expected to grow by 500,000 each year, according to the American Academy of Implant Dentistry. Many of those implants will be placed successfully thanks to surgical guides and digital treatment planning software.

By utilizing this new technology, more dentists can plan cases virtually before ever touching a patient. This helps to not only visualize the final outcome but also to overcome any obstacles that may present themselves along the way.

If you’re interested in delving deeper into implant dentistry, then check out the next several pages where we’ve compiled some of the surgical guides and treatment planning software designed to help to streamline your digital workflow.

3Shape Implant Studio®
- 3Shape Implant Studio® is a predictable implant workflow for a better patient experience
- This software is designed to enable clinicians to create a predictable and consistent workflow for their implant procedures
- From prosthetic-driven implant planning to designing and producing surgical guides in-house, Implant Studio means a better way to work and an esthetic and functional treatment outcome for patients

3Shape
908-867-0144 | 3shape.com
CIRCLE RS #25

Blue Sky Plan
- Blue Sky Plan is a full-featured dental planning software
- Use Blue Sky Plan to prepare surgical guides for guided surgery, orthodontic aligners, dentures and for cephalometric analysis
- Blue Sky Plan is said to use the latest cutting-edge technology to offer advanced features and functionality
- The software can be downloaded and installed at no charge on an unlimited number of computers

Blue Sky Plan
312-344-3950 | blueskyplan.com
CIRCLE RS #26
Prosthetic-Driven Implant Planning Module

- The Prosthetic-Driven Implant Planning Module lets doctors virtually plan implants according to the ideal future restoration—not the other way around.
- It starts by combining the digital impression from a CS 3600 intraoral scanner and 3D scan from a Carestream Dental CBCT system. The two scans are automatically aligned in the CS 3D imaging software to create a virtual set-up.
- Next, the doctor adds the crown to the combined data sets and places the implant from a library of more than 65 manufacturers.

Carestream Dental
800-944-6365 | carestreamdental.com
CIRCLE RS #27

Core3dcentres® and FullContour

- Digital surgical guides manufactured by Core3dcentres and designed by FullContour are said to combine the best in digital treatment design with the best in manufacturing prowess.
- Every case is overseen by a licensed dentist to ensure proper implant placement and that all treatment hazards have been considered.
- The surgical plan is approved by the referring clinician and then sent to Core3dcentres for manufacturing on their fleet of Carbon 3D printers.

Core3dcentres®
888-750-9204 | core3dcentres.com
CIRCLE RS #28

CEREC Guide 3

- CEREC Guide 3 is designed to support both the surgical preparation of the implant site as well as the insertion of all Dentsply Sirona implants.
- It can reportedly be produced in the practice easily, quickly and cost efficiently using CEREC software 4.6.1 based on a digital impression made with the CEREC Omnicam and a 3D X-ray image.
- CEREC Guide 3 is said to ensure that the costs and effort for both the patient and dentist are manageable.

Dentsply Sirona
844-848-0137 | dentsplysirona.com
CIRCLE RS #29

EvoDent E120

- EvoDent’s new E120 is engineered to offer outstanding speed and high accuracy when manufacturing 3D printed surgical guides.
- The simplified nesting software (PolyDevs) is designed to give dentists and their staff a user-friendly, quick and automated way to produce high-quality surgical guides on-site.
- The EvoDent E120’s open file and resin platform offers flexibility to the user to select his or her desired materials.

EvoDent
877-230-3055 | evodent3dus.com
CIRCLE RS #30

PreForm

- Formlabs’ PreForm modeling software powers dental surgical guides, reportedly reducing surgery time and improving outcomes.
- PreForm positions models for the most effective printing, and its smart support structure generation is engineered to ensure an optimal print.
- Import tools allow a dentist to duplicate, align and resize digital models.
- The model can be printed on a Form 2 desktop 3D printer with Formlabs’ biocompatible Dental SG Resin.

Formlabs
617-702-8476 | formlabs.com
CIRCLE RS #31

Surgical guides with digital treatment planning

- Glidewell Laboratories offers digital treatment planning and surgical guide fabrication services.
- The Glidewell DTP team fabricates high-precision surgical guides for most major implant systems, offers complete data conversion without extra fees, and accepts CBCT scans and digital or traditional impressions through a streamlined case submission process.
- Extensive background and expertise as a dental lab reportedly helps to ensure that a restorative-driven approach is maintained throughout treatment.

Glidewell Laboratories
866-497-3692 | glidewelldental.com/dtp
CIRCLE RS #32
**VeriGuide OS™**
- VeriGuide OS™ is a Class I, CE certified resin material developed for the production of high-precision surgical guides for use in dental implant surgery.
- The new material is formulated for 3D printing systems (DLP, SL, and LCD) at both 385 nm and 405 nm. VeriGuide OS has reportedly been successfully tested for biocompatibility and meets all mechanical properties requirements.
- The resin features an easy post-processing method and is said to produce highly accurate surgical guides with a high-quality surface.

**V-Print SG**
- V-Print SG is said to be the material of choice for highly precise dental surgical guides, ensuring that implantation can be carried out accurately and exactly as planned.
- V-Print SG’s high flexural strength and dimensional stability mean the guide won’t lose its shape during handling, and its biocompatibility and neutral flavor are said to ensure high levels of patient acceptance.
- The material’s clarity, along with its being cured at a 385 nm wavelength, reportedly allow for an esthetically pleasing, clear-transparent print.

**Planmeca Romexis® Implant Planning and Guide Design Software Module**
- Planmeca Romexis® Implant Planning software module combines a patient’s CBCT image, digital impression and crown to create a complete virtual set-up.
- Select an implant from one of 60 manufacturers in the extensive implant library and find the optimal position for it with the software’s easy-to-use implant tools.
- Use the implant plan to create an implant guide with just a few clicks in the Planmeca Romexis® Implant Guide Design module.

**coDiagnostiX® implant planning software**
- coDiagnostiX® is a powerful, proven and simple solution that’s designed to let dentists plan precisely and easily to achieve predictable results.
- It offers a completely digital workflow, including preoperative implant planning and surgical guide design for simple to advanced cases.
- coDiagnostiX provides an open and customizable system that can integrate prosthetic and surgical workflows.

**DTX Studio Suite**
- DTX Studio Suite connects the latest technologies — from 2D and 3D imaging acquisition and diagnosis to implant surgery, treatment planning, restoration and placement.
- The suite is designed to connect the entire treatment team from the dental practice to the dental lab.
- Users can access the single software solution from anywhere available on both Mac and PC.

**Planmeca**
- Planmeca
  - 630-529-2300 | planmeca.com/na
  - CIRCLE RS #34

**KaVo Kerr**
- KaVo Kerr
  - 888-ASK-KAVO | kavokerr.com
  - CIRCLE RS #33

**VOCO AMERICA**
- VOCO AMERICA
  - 888-658-2584 | vocoamerica.com
  - CIRCLE RS #36

**VOCO**
- VOCO
  - 800-448-8168 | straumann.us
  - CIRCLE RS #35

**Whip Mix**
- Whip Mix
  - 800-626-5651 | whipmix.com
  - CIRCLE RS #37
Town & Country Dental Studios, has built strong lasting relationships with dentists across the country for over 50 years. As we say, we are “The Right Fit” for you and your practice. With Town & Country you get more than just a dental laboratory, you get a dedicated and experienced partner who will work with you to exceed patient expectations.

We are proud to introduce IPS e.max® Zirconia! With 30% higher flexural strength and 50% higher fracture toughness than common zirconia, you no longer have to choose strength over esthetics.

INTRODUCING

IPS e.max® ZirCAD®
The only ZIRCONIA esthetic enough to be called e.max!
• High strength • Conservative preparations • Easy Cementation

Interested? Circle Product Card No. 38
Boost your bottom line with teledentistry

How TeleDent 2.0 from MouthWatch is helping private practices to improve current business models and implement new profit centers.

Information provided by MouthWatch LLC.

THE PROBLEM

Independent practices are losing patients and revenue

While an increasing number of individual practices are being acquired by DSOs, millennials also are demanding greater convenience. Private practices must implement new business models to survive.

THE SOLUTION

TeleDent 2.0

- TeleDent 2.0 is a complete teledentistry platform that facilitates connected dentistry via real-time streaming or store-and-forward communication.
- The HIPAA-compliant, cloud-based software frees providers to connect with patients across new, untapped settings.
- The software enables live or store-and-forward consultations as well as streamlined sharing of patient records, X-rays, intraoral photos and videos, treatment plans and more.
- With capabilities such as access to new patient touchpoints, expanded hygiene hours, a closed-loop referral system, chairside consultations with specialists and more, TeleDent 2.0 is opening up new revenue streams for private practices.
Covering a larger area in one cure

How The CURE, TC-3 curing light saves dentists time and ensures they won’t miss any part of a restoration. [compiled by Kristen Mott]

Information provided by Spring Health Products.

**THE PROBLEM**

Successfully curing a large restoration can be difficult

There are several factors that must be taken into account when light-curing a restoration. On top of those variables, restorations that are large or in difficult-to-reach areas of the mouth can lead to complications.

**THE SOLUTION**

The CURE, TC-3

- The CURE, TC-3 is a cordless curing light with an 11-mm lens, designed to easily cover a larger area, such as a 10-mm molar, for a fast cure without missing a thing.

- The uniquely designed flat back head and low-profile design is said to ensure easy access to all areas of the mouth.

- The LED has four diodes in the tip to provide multiple wavelength output (440-465 nm), capable of polymerizing almost all light-cured dental materials.

- The all-metal housing is engineered to be durable, easy to disinfect and virtually unbreakable.

- Weighing only 3.1 ounces, the curing light is said to prevent hand fatigue, and the unique ergonomic shape provides a comfortable grip from any angle.

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Spring Health Products
800-800-1680 | springhealthproducts.com
CIRCLE RS #40
Vinyl polysiloxane impression material (VPS) is the top choice for the best, most precise crowns, bridges and other dental prostheses. Since their introduction many years ago, VPS impression materials continue to improve, producing even more accurate and more comfortable impressions. Now, Clinician’s Choice has introduced the PowerMix™ Automatic VPS Dispenser to prep heavy body material faster and more easily while delivering perfectly mixed, void-free impressions in a jiffy.

“In my opinion, you want a heavy body that’s not going to drift,” says Robert A. Lowe, DDS, who practices in Charlotte, North Carolina. But timing and handling issues are persistent challenges in creating perfect, bubble-free impressions with no voids or distortion. To date, extrusion of putty-like heavy body VPS materials has been tough to control from tabletop mixers, which are typically shaped like an injector gun or machine. As heavy body must be mixed just prior to use, timing and placement of machines have presented further challenges, limiting impression treatments to specific rooms where the mixer is located or investing in multiple machines in order to have one for every treatment room.

Clinician’s Choice has solved these issues with its lightweight (two pounds) volume mixer, which is designed to perfectly mix the heavy body impression materials instantaneously and easily, on the spot. Without hand pumping, heavy body material is loaded into the tray in as little as 15 seconds.

“The PowerMix dispenser is completely portable, easy to use by anyone in the office and is much more cost-effective because you only need one mixer for the whole office,” Dr. Lowe says. “I’ve always been a fan of volume mixers, but the majority of volume mixers are designed to sit up on a counter. They’re pretty big, and I needed one in every room, whereas the PowerMix dispenser is portable, easy to use and much more cost-effective.”

He notes that the size and cordless functionality are also key benefits. “My assistant operates ours, as it’s smaller than traditional power mixers and operable by holding it in one hand,” Dr. Lowe says. “By simply holding down the button on the dispenser, the heavy body material is prepared consistently with the exact right mix and is done so in an instant. I really like that it gives a predictable result time and time again. It also saves time, as I can work on injecting the light body material while my assistant prepares the heavy body material at the same time, in advance of both materials mixing to form the dental impression.”

It’s much easier to operate than older forced extrusion setups and offers versatility because you can use the dispenser with one hand to load the material into the tray with the other, or you can place it on a small tabletop stand for additional stability and precision while filling the tray, he adds.

“The versatility makes it different than every other model I’ve seen,” Dr. Lowe says. The PowerMix Automatic VPS Dispenser is specifically designed to have a long battery life and a large capacity so it can be used repeatedly throughout the day. When fully charged (solid green light), it has the ability to dispense eight full 120 mL cartridges — up to 24 full-arch impressions — before needing to be recharged, and it requires no servicing or maintenance by the user.

Each 120 mL PowerMix cartridge holds enough impression material to fill three full-arch trays or six to 10 quadrant impression trays. PowerMix cartridges are designed to reduce plastic waste and minimize impression material being left in the cartridge.
American Dental Implant Corporation

30 Years of Dental Implant Technology

The Highest Quality Internally Hexed Implant System in the Industry

The Blue Magic 3.2 System
Utilizing the 3.0 restorative chamber. The same geometry as the Zimmer Eztetic Implant.

$86.50

The American Dental Twist Drill Series

$45 Per Drill with implant purchase

2.0 2.3 2.8 3.0 3.2 3.4 3.8 4.4 4.8 5.1 5.4

ADI is featuring the Skinny 2.4 Implant

This implant has become the implant of choice for many and varied case types. It can be placed in the most minimal of bone volume and yet offers full prosthetic capability utilizing the internal hex. The drilling sequence is what makes the surgical insertion user friendly. The two drill system, Locator Drill and Final Sizing Drill sequence make the osteotomy preparation fast, easy and safe.

Skinny Bundle

$165

Includes two bone drills and the implant package.

$86

The Skinny Bundle includes:

- Two bone drills
- One implant

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The Blue Magic 3.2 System
Utilizing the 3.0 restorative chamber. The same geometry as the Zimmer Eztetic Implant.

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The Skinny Bundle includes:

- Two bone drills
- One implant

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Reducing the implant failure rate

How the OraCare Implant Post Op Care System helps to deliver positive outcomes. [by Robert Elsenpeter]

Dental implants are somewhat of a miracle. In the past, edentulous patients had to rely on bridges or dentures to replace missing teeth. Implants changed all of that. But, like many miracles, it came with some strings attached.

First, implants are expensive. The cost of replacing a single tooth can range from $1,000 to $3,000. Second, failure rates hover around 10 percent. While it’s up to the market to bring costs down, mouth rinse manufacturer OraCare has developed a new system to combat implant loss due to peri-implantitis.

The need

“We came up with the product because we felt there was a need,” says Robert Martino, DDS, CEO of OraCare. “The No. 1 reason implants fail is peri-implantitis.”

It can be easy to forget that implants are finicky and might not last.

“Sometimes we put in an implant and think it’s going to stay forever,” Dr. Martino says. “An implant is not going to get cavities, but it can still get gum disease, and one of the reasons why we’re putting them in is because a lot of times people lost their teeth through gum disease and didn’t take care of them.”

The OraCare Implant Post Op Care System combats two different issues on two different fronts.

“The first is right after the surgery, which is a time when you can get gum infection and when healing really needs to take place,” Dr. Martino says. “The tissue needs to heal up as soon as possible so that we can get bone integration. The product that the doctor uses right after surgery is a gel.

“And then there’s a rinse that goes home with the patient for the next month and they rinse with this,” he adds. “The same ingredients are in both the gel and the rinse, which are activated chlorine dioxide, aloe vera and xylitol. These ingredients have been proven to kill bacteria and volatile sulfur compounds and they break up plaque.”

The silent problem

Implants do fail, but Dr. Martino notes that too many implantologists fail to acknowledge the issue.

“Ten percent of all dental implants fail, and when they fail, it’s a catastrophe,” Dr. Martino says. “You have to remove it and put bone in there. Before you can put another implant in, the bone has to heal and the implants have to integrate. So, it’s at least a year, if you have a failed implant, before you can put another implant in and restore it. That’s a year that the patient’s not happy. It’s costly. It’s your reputation.”

It’s important to realize that there are a number of variables involved in an implant’s success or failure. While the clinician can take steps to mitigate the variables under his or her control, others are harder to manage — specifically, what patients do or don’t do in terms of home care.

“If you put in enough implants, you’re going to have failures,” Dr. Martino says. “It has nothing to do with skill. It has everything to do with patients’ home care. The primary reason why they fail is peri-implantitis. Forty-seven percent of all implants have some form of peri-implantitis.”

Some of the problems, he says, are because of mixed messages about post-surgery implant care.

“There are different schools of thought on how to clean the implant,” Dr. Martino says. “Do you floss? Some say you should, some say you shouldn’t. There’s just a lot of misinformation out there. I don’t think we’re doing enough as a profession to take care of this problem.”

The patient

Most patients anticipate some sort of postoperative care regimen, and OraCare is an easy-to-use product that facilitates compliance.

“I think they expect something like that,” Dr. Martino says. “And when we don’t give them something, that’s when they’re surprised. They just spent a couple thousand dollars on this implant, and then we send them home with nothing. You just put a foreign body in their mouth. They just had major surgery. There needs to be some kind of follow up, and they need to understand that they have to take care of this differently than they took care of their teeth.”

For some patients, poor oral hygiene was the impetus for needing dental implants. Providing a simple, easy-to-use home care regimen is critical to the surgery’s success.

“When you go to try to slow down bacteria and volatile sulfur compounds, you can’t just hit something once,” Dr. Martino explains. “You have to continue to do it. The body builds it back up. We’re hitting it with the gel, but then we are continuing it with the rinse.”

The breakthrough

OraCare’s mouth rinse has been available for more than seven years. The OraCare Implant Post Op Care System has been available for a little more than six months, thanks to a doctor’s observation. To enhance the products’ efficacy for implants, OraCare added aloe vera. The gel is three times stronger than the rinse.

Ultimately, the OraCare Implant Post Op Care System protects the implant’s health and the patient’s investment.

“It’s like peace of mind,” Dr. Martino says. “You spent all this money; this is a very expensive procedure. You spent a lot of time. It’s low-cost insurance.”

OraCare Implant Post Op Care System

The Implant Post Op Care System is a simple solution to protect implants from the No. 1 cause of failure: peri-implantitis. The integrated system provides an in-office gel and a take-home patient rinse. The system is based on its unique ingredients, which are said to have the ability to eliminate bacteria, viruses, fungi, biofilm and VSCs that contribute to peri-implantitis.

OraCare

855-255-6722 | oracareproducts.com

CIRCLE RS #43
Photography in the dental industry

“Get a camera. It will take your skills to a whole new level,” Dr. Cone says. “When you start seeing your margins and your composite and all that stuff in 30 megapixels on a 4K television monitor, you really realize how not good you are,” he says, jokingly. “It really pushes you to be better, to make sure everything is clean and tidy and neat. It’s just a different level.”

While Dr. Cone uses DSLR cameras to document his most impressive cases, he acknowledges the fear factor in that equipment. “DSLRs are intimidating for most people,” he says. “They see it and think, ‘Oh my gosh, there are so many buttons. Which lens do I use?’”

Aside from that, the cost involved— it can cost $3,000, $4,000, $5,000 to get all this stuff.”

Dr. Cone operates a high-end esthetic practice with people coming from all over New England. By design, his is a small practice. He only sees three or four patients each day. He doesn’t have a hygienist. It’s just him and his wife. His camerawork is well-enough received that manufacturers buy his photos. Additionally, he gives lectures about his work, but, interestingly, lecture attendees weren’t asking questions about the dentistry.

“The question I would get, nine times out 10, was not ‘What kind of burs are you using?’ or ‘What impression material do you use?’ ‘What technique do you do for your dentures?’” he says. “The question I always got was ‘How do you take your photos?’ That’s all I wanted to know. How do you get your pictures like that?”

As a result, Dr. Cone has expanded his lecture subjects to include photography.

Smile Lite MDP

Clinicians interested in photography need not be scared away by DSLR cameras. A suitable option is as close as a smartphone. The quality of those photos can be enhanced through the use of Smile Line’s Smile Lite MDP.

A key component in getting the best photographs is lighting. Professional photographers spend thousands of dollars on equipment to give them the best lighting. Happily, however, the MDP ameliorates that issue by just sliding on the smartphone and providing a portable, easy-to-use lighting rig. The MDP is also useful for times when Dr. Cone is out of the office but needs to be consulted. Dr. Cone’s wife serves as the office manager and his assistant, and she can take the picture and send it to him. “People call all of the time and say, ‘I smashed my front tooth.’ Or we get a lot of people coming in on cruise ships and they are in Portland for a week, and then they fell and knocked their tooth out,” he says. “This is where the MDP comes in extremely handy for my practice. My wife can give the patient retractors and say, ‘I’m going to take a picture.’”

Smile Lite MDP

Smile Lite MDP is designed to take advantage of the camera on any smartphone. This is said to be the very first device specially developed for allowing beautiful dental photos with a smartphone. Smile Lite MDP is equipped with three groups of LEDs with four levels of brightness for each one. With the combination of lights and diffusers, clinicians can now reportedly easily take anterior and posterior pictures.

Smile Line USA

877-755-6868 | smilelineusa.com

CIR CLE RS #44

CAPTURING PERFECT PHOTOGRAPHY

How one prosthodontist achieves optimal results with Smile Lite MDP. [by Robert Elsenpeter]
photo of this. My husband is at a lecture tonight, and he will be back first thing in the morning. ‘I might take one look at it and say, ‘You know what? This is hopeless. You need to go see the oral surgeon.’ Or I might say, ‘Come back in tomorrow, we might do a little bit of bonding.’ She can take that photo and send it to me instantly because there’s no memory card to take out, the lighting is already set up, it’s already like a little mini, all-in-one photo. She doesn’t have to mess around with the overhead lights, the soft boxes, the flashes. It’s really just a couple of buttons.’

Smile Lite MDP is also useful when consulting with another doctor.

“Let’s say somebody comes in and they have a lesion on their lip,” Dr. Cone says. “Or a little abscess at the apex of where the root would be and there’s a fistula that I can see, clinically. I just want to get this over to the endodontist or the oral surgeon. I can just get a quick photo using the MDP and hit ‘send’ on my phone. I can just say, ‘Hey, Dr. Smith, check this out and tell me what you think.’ And then they can tell me, on the fly, ‘This is what’s going on. Get them over here now.’

The right tool for the job

Dr. Cone uses both the MDP and a DSLR, but there are appropriate times for each. For instance, not every case requires the power of a high-end camera, or the DSLR becomes more hassle than it’s worth.

“If someone comes in and they are 15 minutes late, and I only have 15 minutes before my next patient, and I don’t want to be running behind, that’s when I’ll reach for my MDP,” Dr. Cone says. “A couple quick lateral views, a couple occlusal views, an anterior view, and it’s just done. I don’t need to mess around with my brackets and my external flash and changing the batteries in and out.”

In addition, his DSLR can be off-putting to some patients.

“It’s intimidating for them to come in to our office for the first time,” he says. “I can see them visibly uncomfortable when they see this. After a couple of visits, they kind of get into it, and then they’re hammering it up for the camera. There are so many things and I just want to put them at ease. The MDP is diminutive compared to this gigantic thing.”

It doesn’t happen very often, but some patients are simply uncomfortable having their picture taken.

“Some people have a real issue with having photos taken because they don’t know what you’re doing with these pictures. They have no idea,” Dr. Cone says. “So, a really nice thing I can do is say, ‘Hey, give me your cell phone. I’m going to attach it to these lights. I’m going to take a picture. Here’s the number.”

This is the dental office, the lab technician. You have complete control over the picture. I don’t have it. Now, there are no privacy issues. That’s a very small percentage of my patients—maybe 1 or 2 percent of the patients I see—but I couldn’t do that with the DSLR camera. It just wouldn’t fly, and it beats having a ceramist drive all the way up to Maine from Boston when I could just take a photo.”

Photography, Dr. Cone says, can help any practitioner improve his or her work. And while the MDP will help get great pictures, it can also serve as a good foot in the door for those doctors interested in getting more out of photography.

“The more and more I got into photography, the more I realized that there’s a lifetime of information there,” Dr. Cone says. “That’s the nice thing about photography. There’s always more. There’s not ever a destination. You can always keep improving, and half of the challenge is finding some way to outdo your last image. Photography, in that way, has helped me with what I do, clinically.”

If someone comes in and they are 15 minutes late, and I only have 15 minutes before my next patient, and I don’t want to be running behind, that’s when I’ll reach for my MDP. A couple quick lateral views, a couple occlusal views, an anterior view, and it’s just done.”
Taking quick, efficient digital scans

How the QuickScan iOS is enabling clinicians to acquire highly detailed digital impressions for chairside printing or milling. [by Allison Halco Dranuski]

QuickScan iOS

QuickScan iOS is said to be a state-of-the-art 3D intraoral scanner that allows for a full, radiation-free diagnostic scan of the inside of a mouth. This extremely accurate piece of scanning hardware is designed to highlight potential health issues by taking highly detailed digital images. Eliminate the need for impression goop with high-end 3,000 FPS video, and generate digital images more quickly than with a traditional impression.

Denterprise International Inc.
877-509-3180 | denterpriseintl.com

CIRcle RS #45

QuickScan iOS is Denterprise International Inc.’s new offering in the realm of intraoral scanners. It utilizes the latest technology to offer accurate digital scans in an efficient, timely manner, generating digital images much more quickly than with traditional impressions.

“It’s incredibly fast,” says Danny Domingue, DDS, who practices in Lafayette, Louisiana. He noted how user-friendly he has found the QuickScan iOS software to be.

The QuickScan iOS’s high-quality 3,000 FPS laser imaging highlights potential health issues with pinpoint precision. It offers full-color digital 3D scans and powderless diagnostic scanning, allowing for full, radiation-free diagnostic scans of the inside of patients’ mouths.

Dr. Domingue has found the size of QuickScan iOS appealing. “QuickScan has a smaller handle and tip. It’s also lighter in weight [than comparable products],” he says.

QuickScan iOS helps offices to keep accurate dental records on file for use in ongoing and future dental work, making recordkeeping much more efficient.

QuickScan iOS doesn’t just help professionals though; it makes going to the dentist more comfortable for patients too. The product eliminates the need for impression material, not only saving time but also allowing patients to avoid the uncomfortableness usually associated with getting impressions taken.

“The QuickScan uses an external heating element to heat up the mirror to prevent it from fogging,” Dr. Domingue says. He predicts some patients will like this feature when compared to other systems that use blowing hot air to prevent fogging in the mirror.

Scans from QuickScan iOS can be viewed in leading software such as 3Shape, exocad and Blue Sky Bio. It’s also compatible with Windows products.

The accuracy and performance of QuickScan iOS is equal to that of other leading scanners, as proven by testing completed by independent labs. However, what sets QuickScan iOS apart from its competitors is its affordable price.

“The biggest questions dentists have when purchasing these products are No. 1 cost and No. 2 ease of use,” Dr. Domingue says. He notes that the QuickScan iOS delivers on both fronts.

Cost and usability are just the tip of the iceberg in terms of all that the QuickScan iOS has to offer, as some of its more attractive characteristics aren’t evident until a dentist has had a chance to really delve into using the scanner and spend some time with it.

“What dentists don’t factor in initially is software and hardware speed. This comes later once they start to play with their newly purchased machine,” Dr. Domingue says.

Dr. Dominigue notes that while other intraoral scanners available might be faster — even markedly so — they’re also prohibitively expensive, with some requiring subscription fees. The QuickScan iOS is still a fast scanner, and Dr. Domingue hopes that the affordable price point will help to drive down the cost of scanners in general.

Offering usability and speed in an affordable package, the QuickScan iOS isn’t just an attractive new product for dentists; Dr. Domingue says it might just prove to be a game-changer in the field of intraoral scanners.
DentiMax offers a complete practice management and imaging system both on the cloud or a client/server environment. Completely integrated with cutting-edge, digital X-ray sensors, DentiMax provides benefits that only a complete system can offer. But if you’re already using a practice management or digital sensor system, then DentiMax can make your partial system complete by allowing you to use just the component you need.

DentiMax practice management software is a state-of-the-art, clinical and financial software system that provides an all-in-one solution that will streamline the way you practice dentistry.

Designed for ease of integration, implementation and navigation, DentiMax practice management software eliminates the need for a third-party bridge between imaging and charting systems. From checking in a new patient to viewing X-rays while treatment planning, the software mirrors a practice’s actual workflow.

DentiMax imaging software is an open platform that integrates with virtually all imaging hardware and bridges with major practice management systems.

“The DentiMax sensor system I selected has an open platform that works well with most practice management programs and links nicely with my cordless intraoral camera,” says Kent W. Stapley, DMD.

DentiMax Dream Sensors
Offering the latest technology in digital radiography, the DentiMax Dream Sensors reduce exposure while providing crystal-clear images for clinical evaluation and diagnosis. Built with rounded corners and beveled edges for patient comfort, it’s the thinnest CMOS intraoral sensor on the market and readily slips between the teeth and tongue for easy placement.

High-quality images are delivered in high-resolution directly via a USB port. The “plug and play” simplicity of the USB connection offers efficiency with a minimal number of clicks and setup required. The X-rays can be viewed in as little as three seconds.

“Sensors are more sensitive than film and require less exposure and radiation,” Dr. Stapley says. “The resulting images are clear with very good contrast and sharpness for diagnosis.”

With Kevlar®-reinforced cables and a waterproof, tightly sealed housing with corners that absorb shock, these sensors are extremely durable.

“Even with repeated use, I have not seen a drop in the quality of the images,” Dr. Stapley says.

Charting
DentiMax practice management software is unique in its ability to completely integrate clinical charting with the patient ledger and scheduler as well as other areas of the program.

“The charting screen is very intuitive. By simply clicking on a tooth during treatment, the system updates the procedure throughout the entire process. The ability to make quick changes reduces both the length of the procedure and chair time for the patient,” Dr. Stapley says.

With its completely paperless functionality, the front office staff can benefit from integrated patient texting, appointment reminders and e-prescribing capabilities. Additionally, the charting interface provides quick access to patient data from any location.

DentiMax practice management software is comprehensive, powerful and easy to learn.

“How one dentist improves his workflow by integrating DentiMax practice management software and DentiMax Dream Sensors. [by Jo Donofrio]
Evaluating the Cranberry Smart Dam

Why Contemporary Product Solutions gave these premium rubber dams a 5-Diamond rating. [by Shannon Pace Brinker, CDA]

In the early days of dentistry, practitioners had few ways of controlling the oral environment during restorative work. The instruments and materials available to the dentist of the 1860s to 1930s were used for lengthy procedures during which a completely dry and clearly visible field was needed. The rubber dam was developed for this purpose.

Contemporary Product Solutions recently conducted an evaluation soliciting the opinions of 12 dental practices for more than 62 uses after using the Smart Dam from Cranberry.

Smart Dam premium dental dams
Smart Dam (Cranberry) are premium dental rubber dams that demonstrate unparalleled tensile strength for uncompromising tear resistance. With low modulus elasticity and uncompromising tear resistance, studies have proven that the Cranberry Smart Dam has a 950 percent elongation at break, with 98 percent less latex protein and 80 percent less powder.

Available in a non-latex spearmint-scented purple color, a latex spearmint-scented green color, and an unscented latex blue color with medium gauge thickness, the high contrasting colors offer optimal visual acuity.

Evaluation results
When asked, most dental assistants who conducted the evaluation said they only place rubber dams about 8 percent of the time in their practices. While conducting the study, we found that after reintroducing the technique, it allowed the assistants to place the dam properly, which allowed more practices to help with the evaluation. All evaluators commented the refresher in steps allowed them to utilize the Smart Dam for other clinical applications in the practice.

The Smart Dam was used for the following procedures: 54 percent used it for direct composite placement, 6 percent for endodontic procedures, 22 percent for delivery of restorations, and 18 percent for recorded miscellaneous procedures.

Seventy-two percent of the evaluators said the Smart Dam, due to its elasticity and tear strength, tooth-arch size, rotation and size of the tooth in harder areas to isolate, would now be the dam of choice for their practice. Sixty-two percent of the evaluators said their biggest complaint was getting the dam completely set up and finding there are holes or punctures in the dam itself. Ninety-nine percent of evaluators commented that they loved the colors of the dam and that it was easy on the eye for contrast. Eight-four percent said their patients complimented on the experience applying the dam and after placement were very comfortable.

Conclusion
All the dental assistants surveyed stated that the most common reasons for not using a rubber dam were “inconvenience” and that “it was unnecessary.”

Time and cost are very important to all dental practices. The time saved by operating in a clean field with good visibility compensates for the time spent applying the rubber dam. The Cranberry Smart Dam received a perfect 5 Diamond rating from the CPS team of assistant evaluators.

ABOUT THE REVIEW
With the combination of the world’s leaders in their field, Contemporary Product Solutions’ dexterous, knowledgeable and experienced leadership team maintains a sharp eye for emerging products in the field of general and restorative dentistry by providing a “Total Office” perspective of clinical information and application, incorporating photographs and videos to assist chairside procedures for better patient results. CPS (cpsmagazine.com) will continue to evaluate one product at a time with professionalism, integrity and a commitment to excellence.

Smart Dam
Smart Dam premium dental dams offer high color contrast for optimal visual acuity. The rubber dams are available in both latex and non-latex versions with medium gauge thickness.

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To refer or not to refer? The question every general dentist must answer about oral surgery.  [by Terri Lively]
DENTAL IMPLANTS AND OTHER SURGICAL PROCEDURES ARE A PART OF MANY GENERAL DENTAL PRACTICES, BUT NOT EVERY CASE SHOULD BE HANDLED IN-HOUSE. WE SPOKE WITH LEADING CLINICIANS ABOUT THE CASES GPS SHOULD TREAT AND WHICH REQUIRE THE EXPERTISE OF A SPECIALIST.

Continued from cover... “The industry’s broken, and people are trying to offer more one-stop shopping to keep more in-house to help with the bottom line,” says Tim Bizga, DDS, FAGD, a private practice general dentist in Cleveland.

Mark E. Hyman, DDS, MAGD, an adjunct full professor at the University of North Carolina School of Dentistry and an international lecturer, explains that a generation ago, the traditional private practice had the benefit of dental insurance that was a decent reimbursement, but it hasn’t kept up.

“A thousand dollars in dental insurance in 1970 is still a thousand dollars in 2019, but the costs a dentist has increased five times,” Dr. Hyman says.

Dr. Bizga agrees, adding that insurance companies should raise the maximum for the patient from $1,300-$2,000 to $6,000-$8,000. Because reimbursements haven’t kept up with the pace of inflation, Dr. Bizga says sometimes OHCPs have to ask patients to choose between treatments they need.

“Do you want to do the crown or the root canal this year? That’s a tough thing because now you are not treating what’s best for the patient. You are treating what they can afford right now,” Dr. Bizga says.

Jason Goodchild, DMD, director of clinical affairs for Premier Dental Products Company and an associate clinical professor at Creighton University School of Dentistry, says general dentists can either see and treat more patients or they can integrate procedures they might have otherwise referred to increase revenue. For those who opt to incorporate new areas of surgery, Dr. Goodchild encourages them to invest in training.

“I would always caution dentists who want to do implants and want to do more oral surgery to continue with education to become more proficient in those things. It damages everybody, and most specifically the patient, when we don’t upscale ourselves to deliver the best possible care,” Dr. Goodchild says.

Sarah Jebreil, DDS, AAACD, has a private practice in Newport Beach, California. The patient relationship is sometimes the driving factor for her decision whether or not to refer out. When the oral surgery needed is a straightforward extraction or implant case, she likes to keep those in-house because the patients prefer it.

“You come out the hero because you didn’t have to refer the patient out,” Dr. Jebreil says. “They stay in your office. They didn’t have to go somewhere new. It just makes their life so much easier. So, in those instances the patients value it.”

However, Dr. Jebreil says there’s a flip side to that strategy. With complicated oral surgery cases, things don’t always go according to plan, which can be stressful. The stress is compounded because of the sensitivity of the oral cavity and the emotional environment surrounding surgery in general. In those cases, if you refer it out, you get to be the good guy and avoid the association with unpleasantries the specialist was handling.

“So, I see both sides of it,” Dr. Jebreil says. “I like to refer it out because I want to be the good guy all the time.”

Dr. Jebreil adds that part of the decision to refer or not is the patient relationship you have. People with whom you have an excellent connection could be the place to start if you’re venturing into new areas of treatment.

“You know they already love you,” Dr. Jebreil says. “With new patients, they are still formulating their opinion of you, and you want them to trust you. You want to have that good rapport before you get started because you want them to come back to you for other things besides oral surgery.”

Patient satisfaction is a primary concern for all dentists, says Jennifer Sanders, DMD, a private practice dentist serving families in rural Montana. People don’t like driving to the other side of town to see an OHCP they don’t know. They would rather have their GP do the oral surgery.

In Dr. Sanders’ case, it’s more than a drive to the other side of town. Her practice is just outside of Missoula, Montana. The specialist is often another 20 miles away, so people sometimes won’t go.

“I have patients who live in very rural areas, and they come to see me, but they don’t want to drive into the city,” Dr. Sanders says. “If it’s a choice between the specialist does the root canal or I pull the tooth if they don’t want to go see somebody else, sometimes the tooth ends up getting pulled.”

Edward Kusek, DDS, is a private practice general dentist in Sioux Falls, South Dakota, with 34 years of experience. He keeps most of his oral surgery in-house. Dr. Kusek says it’s about the comfort level for the patient; they know their dentist but not the specialist.

“Patients don’t like getting bounced around,” Dr. Kusek says. “They like to go to one place and have the treatment done. A specialist they might see once, and it adds a lot of stress for the patient.”

Dr. Bizga says he keeps most of his oral surgery cases in-house too. He loves doing it and even considered at one time specializing in it. He took extra hours in oral surgery training and says he never feels
more like a doctor than when he’s suturing a patient.

“For me, it’s a passion area. I feel comfortable. I enjoy doing it. I don’t claim to be an oral surgeon; they have a lot of knowledge and experience with pharmacology, sedation and all sorts of the exotic. However, taking out teeth, I feel very comfortable with that,” Dr. Bizga says.

If a doctor is comfortable doing the case, Dr. Bizga thinks he or she should keep it in his or her operatory. However, he advises doctors to consider their case selection, especially as they’re starting out.

“I believe students get a fair amount of training on taking teeth out in dental school, and if it’s something you enjoy doing, there’s a lot of value for your patients in performing in-house simple extractions and procedures that you feel are within your comfort zone,” Dr. Bizga says.

However, not all general dentists want to do more oral surgery. Dr. Kusek believes the opposite to be true. He says because dental schools train general dentists in so many areas, some of the younger dentists don’t get the training they used to in oral surgery.

“There are a select group of students that are always willing to learn and increase their knowledge, but some of the ones that I’ve worked with or talked to about the major surgery I do as a general dentist are scared to do it,” Dr. Kusek says.

Technology can help general dentists provide specialty care

Dr. Bizga says technology helps general dentists feel more confident about a procedure they’re considering keeping in their operatory because it takes out the guesswork. Investing in technology could mean more straightforward oral surgery cases can stay in your practice.

“You are going to know what you are getting into before you start,” Dr. Bizga explains. “It demystifies. With our advancement in diagnostic tools and having CT scanning available in your office, it simplifies things. It takes the fear out.”

Dr. Hyman says the two game-changers in technology were first the intraoral camera and then the CBCT scan. Intraoral cameras on the front end help to diagnose and show patients the problem, so they understand why you recommend the treatment and they accept your plan. CBCT dentistry gives the dentist a 3D image.

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bleeding isn’t a problem, and things often heal faster.

**Successful specialty-level care requires continuing education**

Dr. Hyman describes continuing education as “paying your dues.” When he’s lecturing, Dr. Hyman encourages his audiences to join dental societies and to set a goal of doing 100 hours of education per year. He says it makes for a fruitful career. Plus, you meet other dentists who are excited about dentistry.

“I don’t think it’s appropriate and fair to the general public to do a specialty procedure if you haven’t had extra training,” Dr. Hyman says. “In today’s world, there’s so much exquisite continuing education available. If you’ve committed to becoming an exceptional general dentist, then it makes it a different discussion.”

Dr. Hyman advises the OHCP not to take on the complicated specialty procedure because he or she has open chair time. He asks OHCPs to imagine if it was their loved one in the chair and the doctor was trying something for the first time without sufficient training. Would they still want that doctor to do the procedure?

“If you are attempting a molar root canal, complicated dental implants, or a full-mouth rehabilitation without proper training, you are cheating the patients, the team and yourself,” he says. “It’s frustrating the entire way around.”

Dr. Hyman says dentistry is “a whole lot of fun” when the doctor and the team are well-trained and on the same page and the patients are highly informed and educated. Patients will accept treatment, pay with appreciation and everybody wins.

“I’m all for professional growth. We all have to learn. We all have a first time for everything. With good CE and trusted mentors, good things happen,” Dr. Hyman says.

Our experts agree that hands-on training has the most benefits over online training. Dr. Hyman says the after-class engagement with the other OHCPs talking about dentistry and their practices was invaluable from the in-person courses he took.

“Online training misses two things: the one-on-one attention from the instructor and the tremendous opportunity to learn from your classmates,” Dr. Hyman says. “I think online education cheats young dentists having the richness of quality education that in-person, hands-on education provides.”

Dr. Sanders says online training is a useful place to get ideas but agrees that it’s not enough on its own. Online training only presents the perfect scenario, she says, and it rarely teaches you what to do if things go wrong. Hands-on training or a good working relationship with a local surgeon who you can look over your shoulder and see that they are getting to the next level of training, Dr. Kusek says.

There are numerous ways to get this mix of training. For lasers, the Academy of Laser Dentistry has multiple courses, and some of the laser companies require certification to use them in practice and offer hands-on courses to help dentists learn. For implants, the American Academy of Implant Dentistry has MaxiCourses™ where clinicians can receive didactic training and then have somebody watch them work to ensure they do the procedures correctly. There are all kinds of educational opportunities that you can find to integrate into your practice. Take advantage of the educational opportunities from continuums to symposiums to residency programs.

“There are all kinds of educational opportunities where you can go and you might take one day a month for six months or one weekend a month for six months, or longer educational opportunities in terms of hours that can benefit you and get you ready to start doing these things,” Dr. Goodchild says.

Dr. Goodchild also recommends mentoring through formal and informal venues. Some of the specialties have formal programs where you watch an expert work, and then the expert observes your work to ensure you perform the way they would. An informal relationship with the specialist also can help you to have a plan for when things go wrong. When Dr. Goodchild wanted to start doing Invisalign in his practice, he worked with an orthodontist with whom he had a great relationship who would step in when he was uncomfortable with the case. He had a similar relationship with an oral surgeon.

“I would cherry-pick the surgeries I wanted to do, and if I felt out of my depth, I would send it to him or go
Dr. Sanders says. "Of the simple stuff off their hands," interesting stuff and I can take some still going to send them the really good relationship. They know I am spectrum but the simpler end of for me to take on a few more of the problem.

Dr. Bizga says, "There’s a special place for all providers that spent many more years training for all those bad ones stay in the general office. So, if I ever stubbed my toe, I could turn to them with confidence and say, ‘I need you to jump in here and bail me out.’"

Dr. Kusek says that even though surgical skills are learned, some people have better tactile feel with their hands than others. “You need to know your limits on surgery,” Dr. Kusek says.

The decision to refer is yours, but patient care is paramount When a general dentist earns his or her DDS or DMD, passes the dental board exam and receives his or her license to practice in the state, he or she can do any procedure he or she is comfortable doing, including oral surgery. In some cases, general dentists are choosing to do quite a bit of it.

Dr. Goodchild says it all comes down to delivering the best possible patient care. Any decision to take on a case or refer it must have the patient’s best interests at heart.

“There’s just no two ways about it in this day and age. The stakes are too high, and you’ve worked too long. It’s too expensive and too many people are depending on you for you to get anything less than excellent patient experience and excellent patient outcomes,” Dr. Goodchild says.

Dr. Hyman believes that just because someone is a general dentist doesn’t mean he or she can’t do an excellent job with an oral surgery case. However, he or she should also be able to deliver the same level of care as a specialist in a similar amount of time and be able to handle post-operative complications, or, in his mind, the dentist shouldn’t do it.

“The Dale Carnegie organization says there are three magic words: Success leaves clues,” Dr. Hyman says. “What do highly successful men and women in dentistry do? They take a lot of pictures, they take a lot of education, they hire a magnificent team and pay them well, they hire great consultants, and they don’t take themselves quite so seriously. The combination makes for a rich career.”

Specialists don’t get the easy cases; they get all the hard ones. The easy ones stay in the general office.

“There’s a special place for all those providers that spent many more years training for all those bad cases,” Dr. Goodchild says.

Dr. Goodchild says careful case selection is crucial to the general dentist when choosing whether to refer or not. Self-awareness will help doctors know when to refer a difficult case to a specialist who can handle it successfully.

“It’s perfectly reasonable to do specialty care within the generalist’s office, but knowing your strengths and weaknesses and knowing when to punt benefits everybody,” he says.
WHEN THE ‘PATIENT IS ALWAYS RIGHT’ GOES WRONG

How to treatment plan when your patient has his or her own ideas. [by Terri Lively]

You have a diagnosis. You have a treatment plan. You have a referral to an oral surgery specialist who can help make it happen. You have everything you need to treat your patient—except for his or her treatment acceptance. It turns out, your patient has his or her own ideas. Here’s what to do when your policy of “the patient is always right” goes wrong.

Find another dentist

“In my seminars, I say, ‘Your patient is always right; they just don’t have to be your patient.’ I didn’t invent that, but I think it’s a fabulous statement,” says Mark E. Hyman, DDS, MAGD, an adjunct full professor at the University of North Carolina School of Dentistry and an international lecturer. Hyman teaches his young doctors to get out of debt as soon as possible. “It’s tough to treatment plan with integrity if you’re thinking, ‘I’ve got to pay for $400,000 of dental school,’” Dr. Hyman says. “If a patient asks you to do something that is not in your skill set or not in their best interest, it’s okay to say, ‘Let me help you find somebody that will do that for you.’”

Young dentists have a harder time turning patients away, however, particularly when they’ve invested hundreds of thousands of dollars in complicated, high-tech equipment. Dr. Hyman teaches his young doctors to get out of debt as soon as possible. “It’s tough to treatment plan with integrity if you’re thinking, ‘I’ve got to pay for $400,000 of dental school,’” Dr. Hyman says. “If a patient asks you to do something that is not in your skill set or not in their best interest, it’s okay to say, ‘Let me help you find somebody that will do that for you.’”

Jason Goodchild, DMD, director of clinical affairs for Premier Dental Products Company, says the rapport that you’ve built up with these patients can help you to reassure them about your plan to refer. He tells his patients that the treatment they need is something the specialist does all day, every day. “I would say things like, “Well I could probably do this, but it might take me an hour, and it will take the other guy 15 minutes,’” Dr. Goodchild says.

Stay within your comfort zone

Dr. Goodchild’s advice for dentists is that through self-reflection, if you feel like you can do what the patient wants, then that’s one thing, but don’t be badgered into doing something. “I don’t care if it’s like, “Oh doc, I know this tooth is broken down, but can’t you put a filling in it to make it look like a tooth?,”” Dr. Goodchild says. “You’re trying to please the patient. At the end of the day, all that ever does is go badly. So, you do the right thing, and you’ll never have to explain why it didn’t meet patients’ expectations.”

Edward Kusek, DDS, is a private practice dentist in Sioux Falls, South Dakota, with 34 years of experience. He tells dentists they have to stand their ground when the patient wants something that will be detrimental.

“You have got to be able to stick up for yourself,” Dr. Kusek says. “It’s hard for the younger dentist to understand because they have to keep the production up. Sometimes they may force themselves to do things that they’re not ready to do right away.”

Knowing what feels comfortable to you is vital so you can keep your practice within your comfort zone. When doctors get outside their comfort zone, Dr. Goodchild says, in his experience, that’s when the bad stuff happens.

Manage expectations

Sometimes the patient-is-always-right policy goes wrong after the treatment is done. Instead of focusing on how far the case has come and the level of improvement the treatment has provided, the patient is concentrating on other details and feeling unhappy. Sarah Jebreil, DDS, AAACD, a private practice dentist in Newport Beach, California, who specializes in cosmetic dentistry, says having a physical record of where the patient started can be helpful in these situations. “Documentation is huge,” Dr. Jebreil says. “A lot of patients forget what they came in looking like or what their chief concern was. The photo brings them back to reality.” The visual record is often sufficient to manage the patient’s expectations. However, some patients are never going to be satisfied. Dr. Jebreil says you should make your peace with that. She also recommends talking to the patient’s previous dentist to get an idea of his or her personality type.

“Any redo case, there’s already so much baggage that comes along with it, and there are just some people that are never going to be happy,” Dr. Jebreil says. “You have to be okay with that.”
USE MAGNETIC MAX IN CONSERVATIVE IMPLANT SURGERY

How the Magnetic Max provides essential surgical advantages as well as greater patient satisfaction.

[ by Dr. Roberto Crespi, clinical professor of dentistry at San Raffaele University, Milan, Italy ]

Information provided by Surgical Solutions USA.

THE MAGNETIC MAX is a magneto-dynamical instrument assembled into a handpiece energized by a power control device, delivering forces by timing of application. The osteotomes are attached to the handpiece that push a shock wave on their tip. This gear is useful for root extraction and bone volume expansion to avoid distress symptoms claimed by patients when a hand mallet is used.

Magnetic Max exploits an electro-magnetic, electronically-operated collision between two masses, allowing a high-intensity impact to be applied in a very short timing; all that permits you to get an elastic wave, followed by a quantity of motion, which expresses itself in an inelastic shock wave on the bone. This lets you obtain the plastic deformation of the bone. The Magnetic Max (Figs. 1-2) is useful for conservative root extraction.

Maximum preservation of the alveolar housing and related gingival structures may be achieved following assisted atraumatic tooth extraction by an electrical mallet (Fig. 3). Different thin metallic blades may be connected to the Magnetic Max handpiece, sending a magnetic wave on the tip. The Magnetic Max imparted to blade a longitudinal movement along the central axis, moving up and down between root surface and lamina dura of the alveolus in a repetitive circumferential fashion, providing a driving mechanism of longitudinal movements. This movement also allows the maintenance of lamina dura for wisdom teeth (Figs. 4a-4c).

The aim of conservative implant surgery is to create a surgical site for implants by displacing a portion of native residual bone using blades and osteotomes pushed by Magnetic Max (Figs. 5a-5e).

In osteotome-assisted surgery for a sinus lift procedure, the use of Magnetic Max provides some essential advantages during the surgical procedure in comparison with a hand mallet. Magnetic Max supplies a more precise control of osteotome of the entry direction (or directionaliry) of the tip into the bone. This is an important concept because bone is generally formed of parts with different density, and the expander tends to be deflected when it moves from a bone part with a specific density to another bone part with a different density.

Furthermore, the handling of the magnetic device is very simple because the mechanical oscillations generated by the actuator, which are transmitted via the hydraulic linkage to the osteotome, are transmitted without difficulties to the workpiece.

In cases with few residual bones in the posterior maxilla, osteotome with Magnetic Max are useful for transcrestal maxillary sinus floor elevation. Its aim is to create a surgical site for implants by displacing a portion of native residual below bone within the cavity of the maxillary sinus. This particular type of bone is usually found below the sinus floor and, through this technique, is displaced vertically in order to create a new implant alveolar portion.

In the final configuration of the surgically created alveolus, the coronal portion of the crest must give primary implant stability. This will be completed by the coronal bone portion pushed laterally and internally of the sinus cavity, from which a sort of closed “tent” formed by the sinus membrane will keep the cavity closed.
The osteotomy is gradually expanded in 0.5 mm increments using osteotomes inserted to the working depth. The final diameter of the osteotomy is 1.2 mm less than the anticipated implant diameter, depending on local bone density.

Such mechanical sequence of osteotomes progressively condensed internal bone wall of initial hole radially outward with respect to central axis to create high-density bone tissue along a substantial portion of the length of the implant site preparation. The platform of the implants is inserted at the level of the alveolar crest. A minimum insertion torque of 30 Ncm is considered.

Subsequently, the soft tissues are sutured. The buccal flap is apically repositioned and stabilized with sutures tied to the margin of the palatal flap and anchored buccally with a loose loop to the periosteum at the level of the alveolar mucosa. This suture design avoids tissue traction in the repositioned buccal flap. The gap between the superficial margin of the buccally repositioned tissue and lower part of the palatal tissue, healed by secondary intention in order to increase the size of keratinized mucosa.

The goal is to change the height of available bone by creating an osteotomy tunnel starting from the crestal position and extending, initially transversally and medially, in a direction parallel to the palatine vault.

Ridge split with Magnetic Max represents a predictable surgical procedure, doesn’t lead to bone injury and doesn’t lead to bone overheating. This surgical technique is rendered safe, less technique sensitive, comfortable and without risk of any form of vertigo (Figs 6a-6e).

The Magnetic Max device had a better bone condensing efficiency, especially in softer bone, because of the magnetic wave and the subsequent shock wave; induced axial and radial movements applied on the tip of the osteotome with a fast energy prevents patient distress. However, further clinical trials are mandatory to evaluate the efficiency of this new device for osteotome procedure, but these results encourage the development and continuation of this technique.

REFERENCES


A dental practice in the United States is largely comprised of private practitioners whose attention given to mastering clinical skills often outweighs attention to mastering business skills.

The in-roads being made in dentistry by corporate entities place a strong spotlight on the differences of approach in dental practice when the business of dentistry is given equal weight to clinical skills. Practices that place equal emphasis on business strength have a strong advantage in all areas of the dental marketplace—especially with respect to delivering higher levels of patient care.

The long-time president, chairman and CEO of General Motors Corporation Alfred P. Sloan in his book *My Years with General Motors* wrote, “The big work behind business judgment is in finding and acknowledging the facts and circumstances concerning technology, the market and the like in their continuously changing forms. The rapidity of modern technological change makes the search for facts a permanently necessary feature.”

In 1999, Microsoft founder and CEO Bill Gates wrote his revolutionary book *Business @ The Speed of Thought*. In it he stated, “I have a simple but strong belief. The most meaningful way to differentiate your company from your competition, the best way to put distance between you and the crowd, is to do an outstanding job with information. How you gather, manage and use information will determine whether you win or lose.”

If the words of these two giants in American business are true—that the continual search for advanced technology is key, and that the implementation of that technology is necessary to maintain competitive advantage — then it’s reasonable to assume that it would be important to understand the state of advanced technology in dentistry today by seeing what is not only possible but routine in technologically advanced dental practices.

Patients routinely come to the office for consultations regarding the placement of dental implants for missing teeth. An ultra-low dose dental cone beam computed tomography image (ULD CBCT) is the only image taken during the consultation. The image shows all of the required information for answering the patient’s questions, for determining whether the patient is a candidate for implant placement and for virtually planning the implant.

A 39-year-old female presented as a new patient for an implant consultation to replace missing tooth #30. A ULD CBCT (Figs. 1-2) was taken, and it was determined the patient was a candidate for implant placement.

A review of the scan revealed no pathology. The bone appeared to be dense with adequate width. The mandibular nerve was drawn, showing the nerve and the foramen were safely inferior to any position the implant would be placed.

Using Planmeca Romexis® software, the appropriate implant library was selected, and a Camlog iSY 4.4x13-mm implant was placed virtually, along with an abutment and library crown to help visualization of proper implant angulation.

From this consultation, the patient agreed to treatment and became a patient of the practice. She scheduled a new patient examination and hygiene appointment and scheduled surgery for the implant placement.

A surgical guide was printed from the implant scan. The Romexis cone beam study is transferred within Romexis to the Romexis Surgical Guide Module, where a surgical guide is designed for implant placement (Figs. 3-6). The stereolithography file (STL) for the design guide was then downloaded to 3D printer software to print the surgical guide in-house on the practice’s 3D printer.

A day in the life of a digital dentist doesn’t pass without digital impressions utilizing a scanner and milled fabrication of restorations. Fabrication may be accomplished in-house in a single appointment or by a laboratory from the digital scan impression.

A day in the life of a digital dentist doesn’t pass without digital impressions utilizing a scanner and milled fabrication of restorations. Fabrication may be accomplished in-house in a single appointment or by a laboratory from the digital scan impression.

The implant in the tooth #12 area on the 50-year-old female patient is ready for restoration. In this instance, a stock abutment was
selected and prepared extraorally. The abutment was placed to 2.5 ncm torque.

The PlanmecaFit with the Planmeca Emerald™ scanner (Figs. 7-8) was used to take a set of digital impressions, and the restoration was milled in the PlanMill® 40 S using an Ivoclar Vivadent IPS e.max block shade A1. The milled restoration (Fig. 9) was crystallized and glazed in an Ivoclar Vivadent Programat CS2 oven.

The restoration was seated (Figs. 10-11), contacts and occlusion checked, and luted into place with Ivoclar Vivadent SpeedCem composite luting cement.

Finally, a day in the life of a digital dentist isn’t complete without a same-day restorative case. Digitally scanned impressions allow for the consistent, accurate, comfortable and cost-effective production of restorations.

A 46-year-old male patient presents with pain on tooth #6. He stated he was traveling overseas in four days for an extended period of time and would like treatment to be completed.

A digital periapical X-ray (PA) (Fig. 12) was taken using Air Techniques ScanX phosphor plates. The PA revealed caries into the pulp. The tooth would require endodontic therapy, a post core and a crown. Root canal therapy was completed (Fig. 13).

A carbon fiber post and composite core buildup was completed (Fig. 14), and a soft tissue crown lengthening was performed with a diode laser at a setting of 2W continuous pulse mode.

A digital scan (Fig. 15) was taken using the Planmeca Emerald. The total scan time of the preparation, the upper arch and the lower arch was less than two minutes.

An IPS e.max CAD block low translucency shade A2 was milled in the PlanMill 40 (Fig. 16). Milling time was 14 minutes.

The milled crown was tried in the patient’s mouth and contacts and occlusion were adjusted. The crown was cleansed and dried and prepared with e.max stains and glaze prior to an approximately 20-minute cycle in the Ivoclar Oven (Fig. 17).

The final crown (Fig. 18) was seated and cemented with Ivoclar Vivadent SpeedCem cement. The total treatment time for this case was three-and-a-half hours from start to completion.

A day in the life of a digital dentist is a fulfilling and satisfying day in terms of the high level, sophistication and variety of care that can be accomplished, not to mention the high degree of profitability afforded.

The search for optimal advanced technology is a never-ending quest; however, it’s an essential ingredient that’s required for success in today’s economic and practice environment.

To paraphrase Bill Gates, the most meaningful way to differentiate your practice from others in the eyes of your patients, and the best way to put distance between you and the crowd, is to do an outstanding job with advanced dental technology. How you use advanced technology to gather and manage information and to provide care will determine your level of success in this profession.

ABOUT THE AUTHOR
Dr. Eugene Antenucci’s expertise in the clinical integration and utilization of advanced dental technologies has helped practicing dentists make sound decisions in working with and profiting from technology. As an international lecturer, his programs have provided attendees with concrete and usable information on the practical applications of technologies. Dr. Antenucci maintains a full-time restorative, implant and cosmetic private practice in Bay Shore, N.Y. He has served numerous academic appointments—most recently as a clinical assistant professor at NYU College of Dentistry teaching implant surgical and prosthetic dentistry. He is a Diplomate of the International Congress of Oral Implantologists.

1. CBCT implant consult #30.
2. CBCT implant consult #30.
3. Printed surgical guide.
4. Digital PA radiograph implant placed #30.
5. Implant healed.
6. Implant abutment.
7. Planmeca Emerald™ scanner.
8. PlanMill® 40 S.
12. PA revealed caries into the pulp.
13. Completed root canal therapy.
15. Digital scan using Planmeca Emerald.
16. IPS e.max CAD blocks and PlanMill 40.
17. Milled IPS e.max CAD block and Ivoclar oven.
18. Final crown seated and cemented.
IS YOUR CURING LIGHT ‘BRIGHT’ ENOUGH?

Why your curing light could lead to restoration failure.

[ by John Kringel with Chris Felix ]

But the oral environment is far from ideal laboratory conditions. To make our data more clinically relevant, we designed tests to simulate how light curing was done on a patient in a dental office. The first “aha moment” came from testing dental students and practicing clinicians under these clinical simulations to see how good they were at getting that light where it needed to go in the oral cavity. Some of them did really well, some did really poorly, but it was all left to chance.

We uncovered a real gap in the dental training that existed because light curing was considered such a simple skill.

So, how frequently is poor curing light performance a potential culprit in restoration failure?

In the process of studying the interaction between various models of curing lights and light-cured dental materials, we amassed a huge database of more than 80,000 unique curing light tests. We were pretty astonished to find that at least one in five curing lights was significantly outside of the manufacturer’s specification. We define “significantly outside” as plus or minus 20 percent deviation from the stated irradiance, at which point there’s not much question as to whether the performance variation will have an impact on proper curing.

What determines whether a curing light is going to deliver the appropriate amount of energy to the materials?

Let’s presume the dentist is aware of and follows the manufacturer’s recommended settings and optimal curing times for each of the resins used in the practice. These recommended curing times assume the light is working to a specified output, or irradiance. Our data shows about 75 percent of the time that assumption is wrong.

One reason for this can be attributed to low-quality lights that are showing up in increasing numbers
on the internet. We recently devised an automated test that cycles fully charged lights on and off until the batteries die and measures how the output varies over the charge cycle. While quality lights maintain nearly consistent output, we found some of these low-end lights were losing 50 to 60 percent over a single cycle—the worst one we tested lost 96 percent of its output. Based on this testing, I would advise dentists that reducing practice costs by purchasing cheap curing lights can be the single most expensive decision you make.

Even quality lights do degrade with normal wear and tear. Let’s say a light that had an original output of over 1,000 mW/cm² drops to 800 mW/cm² over two years of normal use. For some materials, a change of that magnitude might require doubling the curing time to achieve full polymerization.

Maintenance issues also can compromise curing light performance. Autoclaving tips have been shown to reduce throughput. If lights aren’t cleaned thoroughly, cured material can adhere to the tips, reducing the light delivered to restorations. Of course, the fiber optic tips can fracture or crack, so lights that are dropped should be tested before being returned to service.

Please talk about new technology on the horizon that will help dentists detect these curing light problems before they impact patients

The simple dental radiometers available today are affordable but have reliability issues and limitations. Many radiometers only provide a simple pass/fail readout and don’t assist dentists with the interaction between their specific light with their specific materials. In our lab testing, we use highly accurate spectrometers. While spectrometers don’t have these limitations, they’re too fragile and expensive to be practical for dental practice.

As a solution, BlueLight Analytics has incorporated a cost-effective sensor technology driven by an advanced machine learning algorithm and a large database of spectral measurements to train this sensor to work as a virtual spectrometer. The database includes test results from a wide array of curing light makes and models as well as the recommended curing times from composite manufacturers.

Via a smartphone app, the user gets the irradiance output of his or her light, recommendations in the case of malfunction and adjusted curing times for the specific materials used in that practice. The system, called checkUP, is currently in beta testing and should be commercially available in late spring.

“Recommended curing times assume that the light is working to a specified output, or irradiance. Our data shows that about 75 percent of the time that assumption is wrong."

“Reducing practice costs by purchasing cheap curing lights can be the single most expensive decision you make.”

Newer testing technologies can provide at-a-glance, light-specific curing times for all materials used in the practice.

ABOUT CHRIS FELIX

As a materials scientist, Chris Felix continues to support research in the field of light-cured restorative dentistry globally. He has co-authored over 40 publications and holds numerous patents. He is co-founder and chief science officer of BlueLight Analytics (bluelightanalytics.com), which develops light measurement technologies to improve dental patient outcomes.

ABOUT JOHN KRINGEL

John Kringel is chief operating officer at Cellerant Consulting Group, dentistry’s leading corporate incubator and accelerator. Prior to joining Cellerant, he served in various executive roles with leading medical device and dental industry manufacturers.
Using technology for better esthetic outcomes

Technology is embedded into everything we do and is now paving the way for better dental esthetics.

Technology is so embedded into everything we do now. The seamlessness of the experience frequently allows us to forget how things “used to be” even just a few years ago.

In the hour prior to starting on this article I’ve emailed multiple people, had a Twitter DM conversation with someone on Oahu, read a story in a Pakistani newspaper, updated some contacts (where those updates immediately appeared on all my devices), and used AirDrop to send a photo from my laptop to my phone. Oh, and not once did I think about how difficult any of those things might be. They just happened with hardly any effort on my part.

We could sure use a bit more of that in dentistry right now. Moving data around is a whole lot easier than it used to be, but with the security concerns we have regarding patient data and HIPAA compliance, reliable encryption by some program that was something of an “industry standard” could certainly help.

Often in dentistry we see tremendous advantages in our practices from technology, but the idea of cross-platform compatibility from one company to another would certainly help things. It would also be tremendous if the data was device agnostic for things such as CBCT scans. I’d love to be able to open them on my Mac without having to use a program from a completely different vendor than what I use on the Windows computers in my office.

However, there are times when we can actually coordinate a “symphony of technology” in our offices. By that term, I mean that we can coordinate different technologies so they blend together in a harmony that works better together for a better overall result. One of the best procedures for this type of “many technologies, one goal” scenario is cosmetics.

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Impressions are done digitally with the iTero® Element scanner, which offers tools for both restorative and Invisalign workflows.

The education

There are always things we can do to improve. In my book, that’s a lot of what technology is all about, and, personally, I think one of the principal ways we can improve in dentistry is through communication.

Often in the world of cosmetics the patient has an idea of what he or she wants, but he or she really doesn’t know how to get there. Sometimes patients’ expectations can be greater than what can be delivered. Sometimes those results are “possible” but require things like orthodontics or soft tissue surgery. The secret to having an acceptable outcome is often directly related to communication.

I say this all of the time, but that’s because it’s so important. Experts state human beings receive more than 85 percent of their information through their eyes. Translated, that basically means you can talk until you’re blue in the face, but people won’t remember much of it and they probably won’t comprehend much of it either.

What they’ll remember is what they see. So, it’s critically important to use visual tools when you communicate with patients. We have lots of educational models in the office that we can quickly access to show a patient the difference between implants, bridges, crowns, veneers, etc. Many patients know they want a great smile, but most don’t understand how to get one.

The plan

I’m a big fan of the expression “Failing to plan is planning to fail.” When you’re performing large cases, it’s so much easier to accomplish the end if you start with a solid plan. Once we’ve educated the patient on the options, we then enter the planning phase. I’m an “info hound,” and by that I mean I’d much rather have too much information than too little.

Normally the process of a big case starts in hygiene; however, that’s only the first step. Hygiene helps determine the patient’s wants and needs. Then comes the visual education. At that point the patient is advised to set up a data gathering appointment, which allows us to collect the extensive secondary dataset that we need for the full treatment plan. Hygiene is continually collecting primary data, which is used for routine diagnosis and treatment planning. Secondary data is what we need to provide superior extensive or elective treatment.

At the secondary appointment, we’ll get a cone beam scan and also scan the full mouth with our iTero® Element unit (itero.com/en-us). We’ll have the iTero scans converted into study models. I like this process for two reasons:

1. The models are made of a polyurethane material (similar to a bowling ball) that’s incredibly durable. That means they’re almost impossible to break, chip, or abrade. Unlike stone models, once the scan is complete, pretty much all errors are eliminated. There are no concerns about bubbles, fracturing teeth when separating the model from the impression, etc.

2. The digital models just flat out look pretty with absolutely no effort on my part.

If your office has a 3D printer, this can easily be done in-house with less time and less expense.

Digital photos are then taken with a digital SLR camera. We take several extraoral full-face photos, including profiles from both sides. Then we take as many close-up photos of the dentition as we feel we need with a zoom lens. If necessary, we’ll take some intraoral photos with a MouthWatch camera as well (mymouthwatch.com).

This data, along with all of the relevant multifactorial clinical data that we collect at every hygiene visit, is then ready for me to consume as I review and plan the treatment.

The final step in the case workup is a diagnostic waxup of the end result. You can either use the original study models or have a separate set created, which is what I prefer. I want the patient to be able to see exactly what the end result will be, while the other model gives me the perspective of what things are like preoperatively.

The presentation

Once I’ve reviewed all of the data and created a treatment plan, it’s time to get the patient back and do the treatment plan presentation.

At this point we bring all of the info together and show the patient exactly what we can do. Depending on the amount of info the patient needs, I will show the CBCT, digital photos and go over the treatment plan. My main focus is to make sure the patient has a good understanding of what we’re going to accomplish and that he or she has an understanding of the end result and what we need to do to achieve it.

The diagnostic waxup is intrinsically important to this process, as we’ll use it to fabricate the temporaries and also use it as a guide for the lab in creating the final restorations. I want to make sure the patient understands that this will be what the final result will look like. Once he or she approves, we’re ready to get the case started.

Prepping

I love my electric handpieces. Prepping with my Bien-Air iOptima system (bienair.com) makes things easy and very low stress. Finishing the margins is really simple when you can simply tell the handpiece how many RPMs you’d like.

Final margin finishing is done by using a Perfect Margin® kit (available from ACTEON, acteongroup.com/us/) and the Ultrawave® Piezo unit from Ultradent (ultradent.com). The margin kit consists of diamond-coated tips designed to

“There are times when we can actually coordinate a ‘symphony of technology’ in our offices.”
remove any unsupported enamel rods and smooth the margin so the final restorations fit like a proverbial glove. These tips, combined with the incredible power of the Ultrawave, create the smoothest margins I’ve ever seen.

Troughing of the gingiva is done with the Ultradent Gemini® dual-wavelength laser. Judicious use of the power settings allows you to basically “melt” the tissue to expose the margin. The laser tips are 400 microns, which allow you to create a 400-micron gap between margin and tissue. Using the dual-wavelength feature also eliminates tissue tags that can create marginal discrepancies during the digital scan.

During this appointment, all treatment is done at either 5.0x or 5.5x with either my Orascoptic Eye-Zoom™ or OmniOptic™ surgical telescopes. The lighting is via either an Orascoptic Zeon™ Discovery™ or Endeavour™ XL headlight (orascoptic.com). Both systems have an output of about 85 lumens, which is incredibly bright.

The impression is done digitally with the iTero Element™ scanner. The scan is checked and temps are fabricated.

The moment of truth
There are several things that make digital impressions incredible. One of the best things in my opinion is the fact that the models are so incredibly accurate. Not only from a marginal standpoint but also the way the dies fit. There’s absolutely NO movement between the dies and the model. This allows for spot-on contacts and spot-on occlusion on nearly every case.

Often when cementing/bonding an anterior case, there’s some stress due to contacts and everything lining up correctly as the restorations are permanently placed. Digital models eliminate those concerns.

The way the case looks on the model is the way the case looks in the mouth. Trust me on this one. I’ve done digital cases for about eight years now and my clinical experience has been nothing short of amazing.

What they’ll remember is what they see. So, it’s critically important to use visual tools when you communicate with patients.

One very effective tool I’ve discovered over the years is in setting up the operatory prior to patient arrival. On the patient monitor we always have one of the pre-op close-up photos.

Often in the process of giving a patient a perfect smile, the patient forgets where he or she was when we started. By having him or her see a close-up of his or her smile from before greatly increases how happy he or she is when he or she sees the after smile.

The temps are removed and the case is tried in. Once the restorations are in place but before cementation, I leave the room while the dental assistant and the patient discuss. I’ve found patients are much more willing to tell the assistant if they have a concern than me. If there are no concerns, the assistant lets me know and we proceed with bonding.

The case is light-cured using an Ultradent VALO® Grand LED with a tacking tip, allowing us to clean up the excess material prior to completely bonding in the restorations.

We then take another series of digital photos that duplicate the pre-op photos.

Wrapping up
This situation is an example of using technology to considerably improve the outcome. While cosmetic cases can be incredibly rewarding for everyone involved in the process, they can also be fraught with potential pitfalls along the way.

I hope that the scenario outlined here helps you to avoid some of those pitfalls during the cosmetic cases in your practice. Technology is a Swiss Army knife of benefits in the dental office. From helping your patient understand the treatment to decreasing your stress during try-in, there are myriad reasons to upgrade your practice in new and exciting ways.

Hopefully you’ve come away from this article with some new insights and some ideas on how to improve your cosmetic treatment protocol. See you next month.

ABOUT THE AUTHOR
John Flucke, DDS, is Technology Editor for Dental Products Report and dentistry’s “Technology Evangelist.” He practices in Lee’s Summit, Mo., and has followed his passions for both dentistry and technology to become a respected speaker and clinical tester of the latest in dental technology, with a focus on things that provide better care and better experiences for patients. He blogs about technology and life at blog.denticle.com.

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Benefits of strength and endurance training

To prevent dental workplace injury, focus on endurance training and slowly introduce strength training.

[ by Dr. Bethany Valachi, PT, DPT, MS, CEAS ]

You wouldn’t put just any old forcep on any old tooth for an extraction. You need to match the appropriate instrument to the specific treatment needed. For example, if you try to use an anterior forcep on a posterior tooth, it probably won’t work well — in fact, someone could get hurt!

Likewise, when it comes to exercise, you need to match the type of exercise to support the job you’re asking of your muscles every day in the operatory. For example, if you perform strengthening/power (anaerobic) exercise on your upper trapezius, you may likely develop painful trapezius myalgia because studies show the upper traps easily become oxygen-deprived and ischemic in the dental operatory. Therefore, performing an anaerobic exercise on these oxygen-starved muscles worsens the condition and can lead to pain. I’ve seen the wrong type of exercises lead to pain problems countless times among dental professionals.

There are two general ways to condition muscles.

Muscular endurance training (aerobic)
This exercise targets Type I muscle fibers, which have a high capacity for aerobic energy supply and are fatigue-resistant. This type of training produces muscles that contract for a long duration at a low level. Postural stabilizing muscles, located closer to the spine, are largely made of Type 1 fibers; when properly trained, they enable an upright posture for prolonged periods of time without pain or fatigue. One example of an excellent muscular endurance training exercise for the lower trapezius involves an exercise band pulling down at a 45-degree angle.

Warning: I did a Google search for “best muscular endurance training exercises” and two of the top five exercises are contraindicated for dental professionals! Sit-ups and push-ups can both worsen the painful imbalances to which dental professionals are prone to by targeting the pectoralis, scalenes, sternocleidomastoid and psoas. All four muscles are prone to tightness, ischemia and painful trigger points in dental professionals due to their seated postural demands. This is why it’s imperative that you know which muscles to target in your exercise program and how to exercise them without simultaneously activating the wrong muscles.

Muscular strength/hypertrophy training (anaerobic)
This targets Type II muscle fibers, which have a high capacity for rapid force production and fatigue quickly. This type of training produces muscles that contract powerfully but only for a short duration. Power muscles — such as the quadriceps — are made of a mixture of Type I and Type II fibers to enable both aerobic (i.e., jogging) and anaerobic (i.e., sprinting) activities. Injury prevention exercise programs should be customized to the occupation — a construction worker will have different muscular demands.
than a dentist. A well-designed injury prevention exercise program for a dental professional should focus mostly on muscular endurance training, which will enable the dental operator to maintain an optimal posture for prolonged periods of time without pain or fatigue. It also will allow the operator to periodically go into nonneutral, challenging postures for difficult tooth surfaces (i.e., distobuccal of #15) with less discomfort.

Why is muscular endurance important?
Once a good baseline program of muscular endurance is established by dental professionals, strength training can then be slowly introduced as long as the muscular endurance training continues.

A central tenet of human movement is that stabilization must occur in the proximal muscles and joints before the distal joint can move safely. This is the reason physical therapists are inundated with patients injured while participating in P90X and CrossFit exercises. It’s not that the exercises themselves are bad, but in order to perform most of them safely requires a great deal of stabilization in the trunk, shoulder girdle and hips. These stabilization exercises are often not present in sufficient quantity in these programs, and as such, injury often occurs.

How is the training different?
Muscular endurance training involves high repetitions, low resistance and mostly targets the postural stabilizing muscles. Strength/bodybuilding training is just the opposite, focusing on low repetitions and high resistance and primarily targeting the “mover” muscles.

This year, make it a priority to do the right type of exercise that will keep your body pain-free and enable you to have the long and healthy career you deserve!

ABOUT THE AUTHOR
Dr. Bethany Valachi, PT, DPT, MS, CEAS, is author of the evidence-based CE video package “Home Exercise for Dental Professionals.” Team members can earn two CEUs with this video training that helps correct painful muscle imbalances and prevent injury. Dr. Valachi is recognized internationally as an expert in dental ergonomics and has provided over 700 lectures worldwide. She has published more than 70 articles in peer-reviewed dental journals and offers additional dental ergonomic resources on her website at www.posturedontics.com.

“A well-designed injury prevention exercise program for a dental professional should focus mostly on muscular endurance training, which will enable the dental operator to maintain an optimal posture for prolonged periods of time.”

(Figs. 1-3) Example of a beneficial muscular endurance training exercise for the lower trapezius (Fig. 1). Example of a poor muscular endurance training exercise for dental professionals, the full sit-up (Fig 2). Example of a strength training exercise (Fig 3).
Endpoint detection and response (EDR) tools are built to supplement endpoint security with increased detection, investigation and response capabilities. However, the hype surrounding EDR tools can make it difficult to understand how exactly they can be used and why they’re needed.

To make matters worse, today’s EDR solutions often struggle to provide value for many dental practices, as they can be difficult to use, lack sufficient protection capabilities and are resource-intensive.

Here are some additional reasons to consider an EDR solution.

1. **Confidently report on your security posture at any given moment**
   IT and security teams are often motivated by attack and defense metrics, yet the hardest question for most teams to answer is “Are we secure right now?” This is because most networks have sizable blind spots that make IT and security teams struggle to see what’s going on inside their environments. Lack of visibility is the primary reason why organizations struggle to understand the scope and impact of attacks. This often manifests itself when an incident occurs and the team assumes it’s safe because that incident was detected.

2. **Detect attacks that have gone unnoticed**
   When it comes to cybersecurity, even the most advanced tools can be defeated given enough time and resources, making it difficult to truly understand when attacks are happening. Offices often rely solely on prevention to stay protected, and while prevention is critical, EDR offers another layer of detection capabilities to potentially find incidents that have gone unnoticed.

   Organizations can leverage EDR to detect attacks by searching for indicators of compromise (IOCs). This is a quick and straightforward...
way to hunt for attacks that may have been missed. Threat searches are frequently kicked off after a notification from third-party threat intelligence: for example, a government agency (such as US-CERT) might inform an organization that there’s suspicious activity in their network. The notification may be accompanied by a list of IOCs, which can be used as a starting point to determine what’s happening.

3 Respond faster to potential incidents
Once incidents are detected, IT and security teams usually scramble to remediate them as fast as possible to reduce the risk of attacks spreading and to limit any potential damage.

Naturally, the most pertinent question to ask is how to get rid of each respective threat. On average, security and IT teams spend more than three hours trying to remediate each incident. EDR can speed this up significantly.

The first step an analyst might take during the incident response process would be to stop an attack from spreading. The investigation process can be a slow and painful one. This of course assumes an investigation occurs at all.

Incident response traditionally relies heavily on highly skilled human analysts. Most EDR tools also rely heavily on analysts to know which questions to ask and how to interpret the answers.

4 Add expertise without adding headcount
By a large margin, dental practices looking to add endpoint detection and response capabilities cite “staff knowledge” as the top impediment to EDR adoption. This shouldn’t come as a great surprise, as a full-time cybersecurity expert on the payroll isn’t an option for the vast majority of dental practices.

EDR replicates the capabilities associated with hard-to-find analysts. It leverages machine learning to integrate deep security insight and is enhanced with threat intelligence, so you can add expertise without having to add staff. The intelligent EDR capabilities help fill the gaps caused by a lack of staff knowledge, reproducing the functions of several types of analysts.

5 Understand how an attack happened and how to stop it from happening again
Security analysts have recurring nightmares where they’ve suffered an attack. A dentist exclaims, “How did this happen?” and all they can do is shrug their shoulders.

Identifying and removing malicious files solves the immediate problem, but it doesn’t shed light upon how it got there in the first place or what the attacker did before the attack was shut down.

Threat cases, included with EDR, spotlight all the events that led up to a detection, making it easy to understand which files, processes and registry keys were touched by the malware to determine the impact of an attack. It provides a visual representation of the entire attack chain, ensuring confident reporting about how the attack started and where the attacker went. More importantly, by understanding the root cause of an attack, the IT team will be much more likely to prevent it from ever happening again.

While many dental offices may be unaware of EDR, it’s worth discussing with your IT provider or other dental IT experts.

EDR offers another layer of detection capabilities to potentially find incidents that have gone unnoticed.

Key takeaways
- Know your security measures
- Find attacks that may have been missed
- Speed up response time
- Understand capabilities of several analysts
- Develop a representation of entire attack chain

ABOUT THE AUTHOR
Dr. Lorne Lavine, founder and president of The Digital Dentist, has more than 30 years invested in the dental and dental technology fields. A graduate of USC, he earned his DMD from Boston University and completed his residency at the Eastman Dental Center in Rochester, N.Y. He received his specialty training at the University of Washington and went into private practice in Vermont until moving to California in 2002 to establish TDD, a company that focuses on the specialized technological and HIPAA needs of the dental community. Dr. Lavine has vast experience with dental technology systems. He is a CompTia Certified A+ Computer Repair Technician and CompTia Network+ certified. As a consultant and integrator, he has extensive hands-on experience with most practice management software, image management software, digital cameras, intraoral cameras, computers, networks and digital radiography systems.

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If you want to serve your patients and help them afford the treatments they need, it’s time to start using ICD-10-CM diagnostic coding in your dental office. Proper coding means medical insurers may pay for your patients’ treatments. If you’re used to CDT codes and have never dealt with medical insurers before, then using ICD-10-CM may seem like an intimidating change for you and your staff. Here are a few simple steps you can take to jumpstart diagnostic coding in your dental office.

01. Get training for a least one member of your billing team
Changing from the CDT to the ICD-10-CM is a major shift in terms of thinking, and your billing staff is the group most affected by the transformation. Schedule training for the people most likely to be dealing with medical insurers. While some practices do try to self-teach, you’ll have a smoother transition and more effective billing if you begin the process with training for your team.

02. Explain coding to the rest of your staff
Diagnostic coding is the language of medical insurers and medical doctors. By adopting it, your staff makes it possible to explain their work to a larger audience. This, in turn, will help your patients receive better care.

03. Emphasize the oral-systemic health link
The reason medical insurance pays for some dental procedures is because there’s a link between oral health and whole-body health. If you teach your staff about this link, they’ll be more willing to take on the new tasks associated with medical diagnostic coding.

04. Revamp your intake appointments
If patients have medical conditions like pregnancy, diabetes, high blood pressure, heart disease, or cancer, then their dental health can have an outsized impact on their whole-body health. Take time at intake to get a complete medical history, because these conditions affect how you use diagnostic codes.

05. Talk to your patients about their health and listen to them
Diagnostic coding is a way to tell a story to insurers. To bill medical insurers, you need to be able to show a condition has real, negative effects on your patient’s life and health.
For instance, if a patient’s dental problems are making it difficult or impossible to eat appropriately, that’s an important piece of the story. If a dental infection is also causing pain, or if there seem to be related sinus issues, those parts of a patient’s experience are important. Part of documenting medical necessity is documenting the suffering caused by a condition, and the only way you can get a sense of suffering is to ask questions and listen to what your patients have to say.

06. Train your hygiene team to spot and flag possible medical issues
Your hygienists can be valuable partners in using diagnostic coding in your practice. Certain infections, bleeding gums and sensitivities may be signs that a patient might be better served by ICD-10-CM coding than by CDT codes, especially if the patient has other medical conditions. A good hygienist will spot these issues and draw your attention to them so you can address them during your portion of the exam.

07. Use ICD-10-CM codes whenever possible
Learn the ICD-10-CM codes most likely to show up in your practice and post a list in each patient bay. When you’re making notes during examination, write in any codes that might apply. That will help your billing staff apply the codes and bill medical insurance.
With these seven quick steps, you can quickly make the shift to ICD-10-CM coding and medical billing in your dental practice.
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