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Journal

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DEPARTMENTS

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FEATURES

OF THE CALIFORNIA DENTAL ASSOCIATION

Journal

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CDA JOURNAL, VOL 39, Nº8

Earthquake Country

RUCHI K. SAHOTA, DDS

Pythagoras said that our destinies hinge on the choices that we make. So if the Big One were to hit tomorrow, would we be prepared?

My family takes full advantage of our city's lake. My brother and I grew up playing soccer in the surrounding park. My 3-year-old nephew sails down the slide at Lake Elizabeth. Moms and dads find time to push their kids on the swings. Red, blue, and yellow paddleboats float along the water. Two dozen or so seniors practice tai chi on the lawn. And my grandmother, mother, and I walk around the lake reviewing three generations of stories, advice, and happenings.

We enjoy these rituals happily but perhaps a bit innocently. According to a report published by the Working Group on California Earthquake Probabilities, the Uniform California Earthquake Rupture Forecast (UCERF), "the most likely source of [a major earthquake in Northern California] is the Hayward-Rodgers Creek fault."[1] The Hayward Fault runs directly underneath my beloved Lake Elizabeth.

I was young when the earthquake in Loma Prieta hit. I remember my bedroom floor felt like it was going to drop from underneath me. I remember the roar of my bookshelf crashing. I remember my heart fluttering, my mind racing, and my limbs going numb. It was here and then gone within a minute or two.

When a fault starts to crack, the plates slip. This sudden movement causes the radiation of seismic waves. The waves spread out across the surrounding area "like ripples from a pebble thrown across a pond." As the waves pass along the damage, the ground shakes and we have ourselves an earthquake.

Events like the tsunami in South Asia and the recent earthquake in Japan remind us to look up the geography of our nearby California fault lines. Such research may be worthwhile. The UCERF predicts that there is a 99.7 percent chance of a "6.7 or larger earthquake during the next 30 years."[2] It gets better. The report goes on to warn us of a 46 percent chance of a 7.5 or greater earthquake in the next 30 years. Either possibility is more likely to occur in Southern California versus Northern California.

But we are Californians. We know what we signed up for. We choose to trade in the 2 percent chance per year of a major earthquake in California for the amazing weather.[2] We choose to live in "earthquake country."

Pythagoras said that our destinies hinge on the choices that we make. So if the Big One were to hit tomorrow, would we be prepared? Experts report that very few Americans have chosen to do so. They do not have emergency kits. They do not have emergency plans. They are not informed about what to do in the case of a disaster of any kind. In 2007, the American Red Cross calculated that only 7 percent of Americans were prepared.[3] Having an emergency kit, emergency plan, and preparation information are simple, inexpensive but necessary steps.

The Red Cross also recommends having an evacuation plan in place, learning how to shut off gas valves, and maintaining an emergency supplies kit in an easy-to-access location amongst other action items for a preparation to-do list. A free tutorial is available at www.redcross.org/BeRedCrossReady. Practical advice regarding preparing your home, business, and/or children is also available on www.ready.gov. As doctors we pledge to "remember [to] remain a member of society, with special obligations to all my fellow human beings." This segment of the Hippocratic Oath directs dentists to be leaders in our community to all, especially when our fellow human beings are in the most distress. If the Big One were to hit tomorrow, wouldn't we also want to help our communities in the aftermath?

The ADA helped to introduce a bill into the House of Representatives in 2009 that would incorporate dentists into the national "emergency response provider" network. Dentists are traditionally limited to contributing their forensic knowledge to victim identification. George S. Patton, a U.S. army general during World War II, advised, "Prepare for the unknown by studying how others in the past have coped with the unforeseeable and the unpredictable." The ADA reports that "in some cases, dentists have not been allowed to take patient medical histories despite their qualifications."[4] In the chaos and frenzy during a mass disaster, do officials forget that dentists triage patients, administer anesthetics, and take medical histories every day?

CONTINUES ON 536

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EDITOR, CONTINUED FROM 533

Military dentists have a different experience. They are categorically called to action in the case of an emergency, perhaps because the military acknowledges that dentists have fundamental medical knowledge. They triage victims. They can suture simple injuries. They decontaminate patients in the case of a biological, chemical, or nuclear exposure. A *Journal of the California Dental Association* article published in 2004 cited a study that reported, "military dentists came in second, only to general medical doctors, in their ability to correctly triage and treat injured individuals in a mass casualty situation."[5]

With supplementary disaster response education, a dentist can serve as additions to the public health care force in the case of a mass emergency. The ADA agrees, "Our nation's capacity to respond to emergencies depends a great deal on mobilizing health professionals at a moment's notice to triage and treat victims. This means utilizing all qualified health care personnel."[4] The bill passed the House in 2010 and is now in the Senate. Illinois addressed this issue in 2005 and now lists dentists and dental hygienists as "dental emergency responders." CDA helped to introduce and advocated for the passage of AB 2210 in 2008. California dentists can now provide voluntary emergency medical care consistent with their training, with immunity from liability.

Though not specifically just for dentists, there are opportunities available for supplemental education. The Community Emergency Response Team (CERT) trainings are easily accessible in most parts of California. Trainings are specific to each geographical area's potential disaster whether it be an earthquake, fire, or tsunami. Dentists would learn essential emergency response skills: fire safety, light search and rescue, team organization, and disaster medical operations. With this training, we cannot only take a role in disaster response, but we can also feel comfortable taking more of a leadership role within their communities.

"Military dentists came in second, only to general medical doctors, in their ability to correctly triage and treat injured individuals in a mass casualty situation."

Forecasts predict we will experience another major earthquake in California during our lifetimes. But of course, my family's trip to Lake Elizabeth will not stop. We probably will not tippy toe around the fault either. We will hope that the Hayward Fault will not shift or give way to seismic earthquake waves but not trust our safety to that hope. We will update our kits, ensure our plans are intact, and continue to gather more information on being prepared for any emergency. Because as Anderson Cooper reflected once, "Hope is not a plan." ■■■■

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CDA JOURNAL, VOL 39, Nº8

Matt Mullin

Fools

BY DAVID W. CHAMBERS, PHD

Arguing with a fool is a sure way of multiplying the number of fools in the world. A fool cannot be ethical. Arguing with a fool about ethics is surely a way to make lots of fools.

It is foolish to think insurance companies lack means for discovering fraud. Only fools think that the profession will magically govern itself and enhance its capacity to serve the public without leadership for volunteer dentists. We cannot fix these problems by expounding ethical theory. A fool who has been lectured to is still a fool.

There is more to being a fool than "lacking wisdom," "being easily duped or a person of weak mind." I know many brilliant fools. How else could they be elected to public office, earn enough money to invest in Ponzi schemes, or support substance habits?

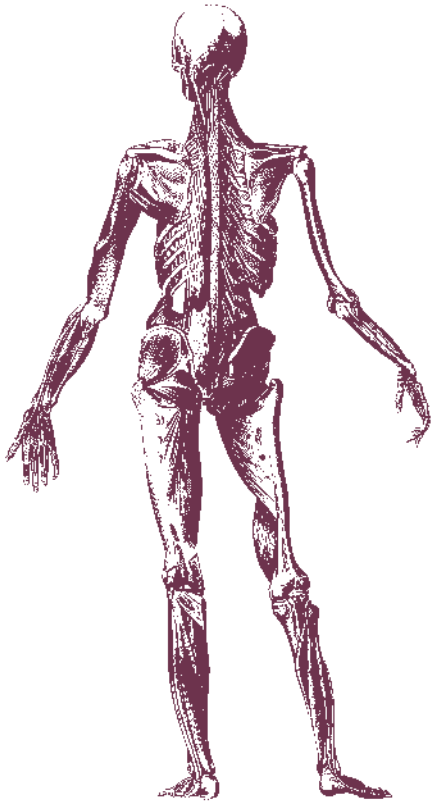
CONTINUES ON 540

Dental Codes App for Mobile Devices Now Available

The American Dental Association recently debuted a new app, CDT Code Check, for the iOS (iPhone and iPad) and Android-powered mobile devices (phones and tablets).

The app makes it easier to find dental billing codes. The CDT Code Check, which contains every code on dental procedures and nomenclature, is a portable resource designed to assist dental professionals who use procedure codes for developing treatment plans, managing patient medical charts and submitting insurance claims, according to a news release. Because the app is portable, it's the perfect tool for dentists and dental staff who travel between offices.

The app includes new and revised codes with marked changes, a complete listing of each CDT Code, including category of service, subcategory, procedure code, nomenclature and descriptor. Users also can search by keyword or code number. The cost of the app is $19.99, and it is available in the Apple iTunes Store and in the Android Market by searching for the phrase "CDT Code Check."



OSHA Temporarily Withdraws Proposal for Musculoskeletal Reporting

The Occupational Safety and Health Administration (OSHA) has temporarily withdrawn a proposed rule that would require small businesses to report work-related musculoskeletal disorders on employer injury and illness logs, a rule many have characterized as the "back door" to a new ergonomics standard. OSHA abandoned the proposal to obtain more input from the small business community, a procedure federal agencies must follow whenever a proposed rule would have a significant economic impact on a substantial number of small entities.

Dental offices are exempt from having to comply with the recordkeeping requirement, unless a workplace incident causes the hospitalization or death of three or more employees. Nevertheless, the ADA has been working through a business coalition – the National Coalition on Ergonomics (NCE), led by the U.S. Chamber of Commerce – to formulate and advance an appropriate employer community response to any specific legislative or regulatory ergonomics proposals.

The Washington, D.C.-based NCE has long opposed OSHA's efforts to regulate ergonomics in the workplace. The NCE is endorsed by a number of organizations including the Academy of General Dentistry, the American Hospital Association, American Small Business Association, American Trucking Associations, International Mass Retail Association, and the United States Chamber of Commerce.

If sound reasoning is based on a flawed picture of the world, one will act foolishly.

FOOLS, CONTINUED FROM 539

Fools are people who bet their lives on mistaken interpretations of the world. The fool says, "I will perform serial endodontics on this patient to stop her complaints of facial pain because I heard a theory at a hotel course. It would be a bad bet on the future to believe because I am smarter than my patients or because I can work faster and serve more patients that way I need not present all treatment options."

If sound reasoning is based on a flawed picture of the world, one will act foolishly. Ethical foolishness is self-duping that harms others. As the philosopher Simon Blackburn observed with regard to morality: few people are bad, but many are blind.

Even people who have good intentions can be moral cripples. Charlatans are out to take advantage of the public, but quacks truly believe in laetrile, delegation of duties to (legally) unqualified auxiliaries, or cosmetic work piled on top of boggy gums.

Consider a bright dental student studying for national boards. A friend shows her a stack of study questions, saying they are "released" in the sense that a group of students from across the country has collaborated in pooling items they memorized when taking the computerized versions of the test. Our hypothetical student is offered the "study material" at no cost because it is something that students have agreed to do to help each other out, and she is reminded that all applicants to the highly competitive ortho programs will be using this material. There are several ways this student could become a fool. The system already stands convicted of foolishness.

Dentistry is not a profession where one wants to fool around.

The nub:

1. Moral behavior requires an accurate understanding of the facts of the situation.
2. Alarm bells should be ringing if the only reason for behavior is that "others are doing it" or "it is expected of me."
3. Don't criticize colleagues you disagree with: sit down with them and try to understand the way they see the world. If their world view is indefensible, show them a better one.

David W. Chambers, PhD, is professor of dental education, Arthur A. Dugoni School of Dentistry, San Francisco, and editor of the Journal of the American College of Dentists.

Are 'Amalgam-Free' Dental Practices Ethical?

Are dental practices that call themselves "amalgam-free" ethical? It was a question tackled in a recent issue of the *Journal of the Michigan Dental Association.*

"Both the ADA and the MDA constantly remind members that they have an ethical obligation to discuss all treatment options, including restorative material options, with patients, always being mindful to base those discussions on valid scientific evidence and standards of care," said Michael Maihofer, DDS, chairman of the MDA Committee on Peer Review/Ethics, adding that there is nothing wrong with a dentist choosing not to use dental amalgam as a restorative material for his or her patients. The ethical obligation, however, is to fully discuss with patients their options, including, if applicable, amalgam. Additionally, a dentist must be satisfied that alternative materials are clinically acceptable for the restorative job.

A dentist, Maihofer said, cannot state or suggest that dental amalgam is somehow toxic or unsafe as a proper restorative option. Amalgam's mercury content may be disturbing to some patients and dentists alike. Nevertheless, ongoing studies continue to show the safety and efficacy of dental amalgam. To suggest otherwise is not true and a violation of the ADA's *Principles of Ethics and Code of Professional Conduct*.

Campaign Launched to Reduce Noncommunicable Diseases

A statement by health professions from around the globe has cautioned that the outbreak of noncommunicable diseases (NCDs) has resulted in a major threat to "human health and development and unless urgently addressed, the burden of NCDs would continue its dramatic increase," according to a news release.

The World Health Professions Alliance (WHPA) announced that NCDs should be viewed in a holistic way as a combined threat to global health.

In 1999, the global organizations representing the world's nurses, pharmacists and physicians joined forces, creating a unique alliance to address global health issues. The WHPA represents 23 million health care professionals worldwide. Its members are the International Council of Nurses, the International Pharmaceutical Federation, the FDI World Dental Federation, and the World Medical Association. Alliance partners are committed to taking an unprecedented proactive role to deliver improved health care to global populations.

Leaders including dentists, nurses, pharmacists, physical therapists and physicians said a single strategy is needed to prevent and manage NCDs ranging from oral disease, some forms of cancers, cardiovascular disease, diabetes, mental disorders, and chronic respiratory diseases that accounted for the deaths of 36 million people (60 percent globally) in 2008, many of those individuals prematurely. Almost 80 percent of the deaths occurred in low- and middle-income countries.

Oral diseases such as cancer, caries, and periodontal problems are sometimes neglected but are a considerable factor in one's overall health, as are mental disorders such as depression.

The recently issued WHPA statement said the four main risk factors are tobacco use, unhealthy diet, physical inactivity, and harmful use of alcohol. To make a meaningful reduction in NCDs it is necessary to take action on the broader factors influencing health behaviors, the conditions in which people are born, grow, live, work and age, and the influence of society. It is crucial to tackle the social determinants of health.

What you get by achieving your goals is not as important as what you become by achieving your goals.

HENRY DAVID THOREAU

UPCOMING MEETINGS

2011	
Sept. 12–17	American Association of Oral and Maxillofacial Surgeons, Philadelphia, aaoms.org
Sept. 14–17	FDI Annual World Dental Congress, Mexico City, www.fdicongress.org. Please also view this related video: youtube.com/watch?v=3N4okaVMYhs
Sept. 22–24	*CDA Presents the Art and Science of Dentistry*, San Francisco, 800-CDA-SMILE (232-7645), cdapresents.com
Oct. 10–13	ADA 152nd Annual Session, Las Vegas, ada.org
Oct. 23–26	National Primary Oral Health Conference, National Harbor, Md., nnoha.org/conference/npohc.html
Nov. 6–12	United States Dental Tennis Association, Palm Desert, Calif., dentaltennis.org
Dec. 16–17	First Dental Conference, Scientific Dental Committee at the Palestinian Dental Association in Lebanon, Beirut, Lebanon, 916-780-1955
2012	
March 29–April 1	CSPD/WSPD Annual Meeting, Portland, Ore., drrstewart@aol.com
April 26–28	World Federation for Laser Dentistry, 13th Annual World Congress, Barcelona, Spain, wfldbcn2012.com
May 3–5	*CDA Presents the Art and Science of Dentistry*, Anaheim, 800-CDA-SMILE (232-7645), cdapresents.com
Oct. 18–23	ADA 153rd Annual Session, San Francisco, ada.org

To have an event included on this list of nonprofit association continuing education meetings, please send the information to Upcoming Meetings, CDA Journal, 1201 K St., 16th Floor, Sacramento, CA 95814 or fax the information to 916-554-5962.

Parents Who Smoke Increase Their Kids' Risk of Behavioral, Health Problems

Researchers at the University of Bristol in England have found that the offspring of women who smoked during their pregnancy were likelier to have behavioral problems by the time they reached age 4. Additionally, children whose fathers smoked tended to become obese, according to researchers in Hong Kong in their own study.

Researchers have long-known that pregnant women who smoke increase the chances their children may be born prematurely, have low birth weight, reduced lung function, and developmental delays. Moms who continue to smoke after giving birth also bump up their children's risk for asthma, ear infections, pneumonia, and sudden infant death syndrome. The new information also suggests these children are at increased risk of obesity, a key risk factor for heart disease and diabetes, as well as maternal smoking.

In the British study, scientists determined children of mothers who smoked during pregnancy were more aggressive and defiant. Researchers speculated this was due to exposure by the mother during prenatal development.

Data also emerged of a possible link between environmental toxins and behavioral problems such that youngsters exposed to organophosphate pesticides used in vegetables and fruits were more likely to have attention deficit hyperactivity disorder, according to an article in *U.S. News & World Report*.

Scientists in Hong Kong and England viewed data on thousands of children for these studies and both papers were published in a recent issue of *Pediatrics*.

Periscope offers synopses of current findings in dental research, technology, and related fields.

IMPLANTS

RICHARD T. KAO, DDS, PHD, AND DAVID W. RICHARDS, DDS, PHD

The Predictability of Esthetic Outcomes

Buser D, Halbritter S, et al, Early implant placement with simultaneous guided-bone regeneration following single-tooth extraction in the esthetic zone: 12-month results of a prospective study with 20 consecutive patients. *J Periodontol* 80(1):152-62, January 2009.

PURPOSE: The aims of this study were twofold: one, to assess the esthetic treatment outcomes of early implant placement in single-edentulous sites located in the esthetic zone; and second, to provide detailed information about the predictability of esthetic outcomes using objective esthetic parameters.

METHOD: The study included 20 partially edentulous patients presenting for a single-tooth replacement in the anterior maxilla. Extractions without flaps were allowed to heal for four to eight weeks. Implants were placed with a simultaneous contour augmentation on the facial aspect using the guided-bone regeneration (GBR). Patients were prospectively followed for 12 months. Clinical, radiologic, and esthetic parameters were recorded.

RESULTS: At the 12-month examination, all 20 implants were successfully integrated. The esthetic outcomes assessed by a pink esthetic score (PES) and a white esthetic score (WES) demonstrated pleasing results overall. The periapical radiographs showed minimal crestal bone loss around the used bone level implants, with mean bone loss of 0.18 mm at 12 months. Only one implant showed >0.5 mm bone loss, combined with minor mucosal recession of 0.5 to 1.0 mm.

CONCLUSIONS: Early implant placement demonstrated successful tissue integration for all 20 implants. The short-term follow-up of 12 months revealed pleasing esthetic outcomes overall, as assessed by objective parameters. The risk for mucosal recession was low. These results need to be confirmed with three- and five-year follow-up examinations.

CLINICAL RELEVANCE: This study is prospective and extremely well-documented. It represents one side in a controversy regarding the best way to replace teeth in the esthetic zone. The objective parameters used to evaluate the esthetic outcomes are of special interest.

IMAGING

SANJAY M. MALLYA, BDS, MDS, PHD, AND SOTIRIOS TETRADIS, DDS, PHD

CBCT Imaging and Orthodontic Management

Haney E, Gansky SA, et al, Comparative analysis of traditional radiographs and cone beam computed tomography volumetric images in the diagnosis and treatment planning of maxillary impacted canines. *Am J Orthod Dentofacial Orthop* 137(5):590-7, May 2010.

THE CLINICAL PROBLEM: Orthodontic management of impacted maxillary canines requires precise localization. This information allows the clinicians to determine suitable surgical access and plan the direction of orthodontic recovery forces. Cone beam computed tomography (CBCT) is frequently used to assess the location of these impacted teeth. Whether CBCT imaging contributes to alteration of the treatment plan is not known.

AIM: To determine the impact of cone beam computed tomography (CBCT) on diagnosis and management decisions for impacted maxillary canines, relative to traditional 2-D imaging.

METHOD: Eighteen patients, with a total of 25 impacted maxillary canines, were included in this study. Each patient was imaged using periapical, occlusal and panoramic radiographs (2-D images) and CBCT scans.The 2-D and CBCT images were examined independently. Observers noted location of teeth, the presence of root resorption, and treatment plans.

RESULTS: In 37 percent of the cases there was a difference between the two modalities in identifying the presence of resorption of the adjacent teeth. Importantly, in 27 percent of the cases planned with 2-D images, CBCT information resulted in different treatment plans. The clinicians' confidence in the accuracy of diagnosis and treatment plan was significantly higher for CBCT images ($p \leq 0.001$).

CONCLUSIONS: Localization and orthodontic management of impacted maxillary canines is strongly influenced by the use of CBCT imaging.

BOTTOM LINE: This imaging modality could improve treatment planning and treatment outcomes.

PERIODONTICS

GERALD I. DRURY, DDS

Systemic Administration of Antibiotics and Full-Mouth Debridement

Ribeiro Edel P, Bittencourt S, et al, Full-mouth ultrasonic debridement associated with amoxicillin and metronidazole in the treatment of severe chronic periodontitis. *J Periodontol* 80(8):1254-64, August 2009.

BACKGROUND: The purpose of this randomized, double-masked, and controlled clinical study was to evaluate the adjunctive clinical, microbiologic, and immunologic effects of the systemic administration of amoxicillin and metronidazole in the full-mouth ultrasonic debridement of patients with severe CP.

METHODS: Twenty-five patients were randomized into two groups. Patients were subjected to one of two treatments: one session of full-mouth ultrasonic debridement, associated with the administration of placebo (control group) or with the administration of amoxicillin, 375 mg, and metronidazole, 250 mg, three times a day for seven days (test group). The parameters assessed at baseline and at three and six months after therapy were visible plaque index, gingival bleeding index (GBI), and BOP.

RESULTS: With regard to GBI, nsd was observed between the groups at any experimental period, and both groups had a significant reduction at three to six months compared with baseline. BOP decreased during the study in both groups. Both groups showed an increase in PGM, a reduction in PD, and a gain in RAL. A difference between the groups was found with regard to the proportion of sites with PD ≥ 5 mm at all periods of evaluation. At three months, 21.30 percent of the sites in the control group still had PD ≥ 5 mm, whereas only 8.93 percent of sites in the test group did. The percentage of sites that needed retreatment at three months was 10.18 percent in the control group and 2.68 percent in the test group. At six months, the values were 9.26 percent and 0 percent, respectively.

CONCLUSIONS: The authors concluded that both treatments resulted in significant clinical improvements. Nsd were observed in the microbiologic and immunologic outcomes with the adjunctive use of systemic amoxicillin and metronidazole.

BOTTOM LINE: Adding systemic antibiotics to full-mouth ultrasonic debridement yields improved short-term clinical benefit, but no significant microbial or immunologic change.

SURGERY

D.D.R. YAMASHITA, DDS

Impacted Maxillary Canines

Bedoya MM, Park JH, Review of the diagnosis and management of impacted maxillary canines. *J Am Dent Assoc* 140(12):1485-93, December 2009.

AIM: To review and compare the radiographic diagnoses of impacted maxillary canines, as well as the interceptive treatment currently used to prevent or treat impacted canines.

METHODS: A literature review from 1959-2009 using clinical and radiographic studies involving prevalence, etiology, and diagnosis of impacted maxillary canines as well as the available literature reviews and case reports from the past 10 years that addressed the surgical and orthodontic techniques used for management of impacted maxillary canines.

RESULTS: Various clinical signs of impacted canines were documented including delayed eruption of permanent canine, retained primary canine, absence of a labial bulge, presence of a palatal bulge, and distal crown tipping of the lateral incisor. Radiographic techniques varied from intraoral methods to extraoral techniques, but the most practical method was found to be an occlusal with X-ray tube placed 60 degrees to the occlusal plane. Interceptive treatment proved to be ideal when the primary canine was extracted before 11 years of age. The success was found to decrease to 64 percent if the permanent canine crown was mesial to the midline of the lateral incisor. The most common method for treating palatally impacted canines and bringing them into occlusion are surgical exposure and using orthodontic forces. Labially impacted canines were generally treated by gingivectomy, an apically positioned flap, or a closed eruption technique.

CONCLUSIONS: With proper evaluation and treatment the frequency of impacted canines can be significantly reduced with the simplest form of preventive treatment being timely extraction of the primary canines. Careful selection of surgical and orthodontic techniques is essential for successful treatment.

CLINICAL RELEVANCE: Since maxillary canines play such a vital role in arch development and occlusion, as well as facial and dental esthetics, it is important that interdisciplinary care, including general practitioners along with various specialists (pedo, OS, perio, ortho) provide early detection and timely interception. However, while improvement in prevention is elemental to improved outcomes, late-stage impactions must be treated with well-managed surgical and orthodontic treatment, in order to provide optimal results for those patients with maxillary impacted canines.

cda PRESENTS

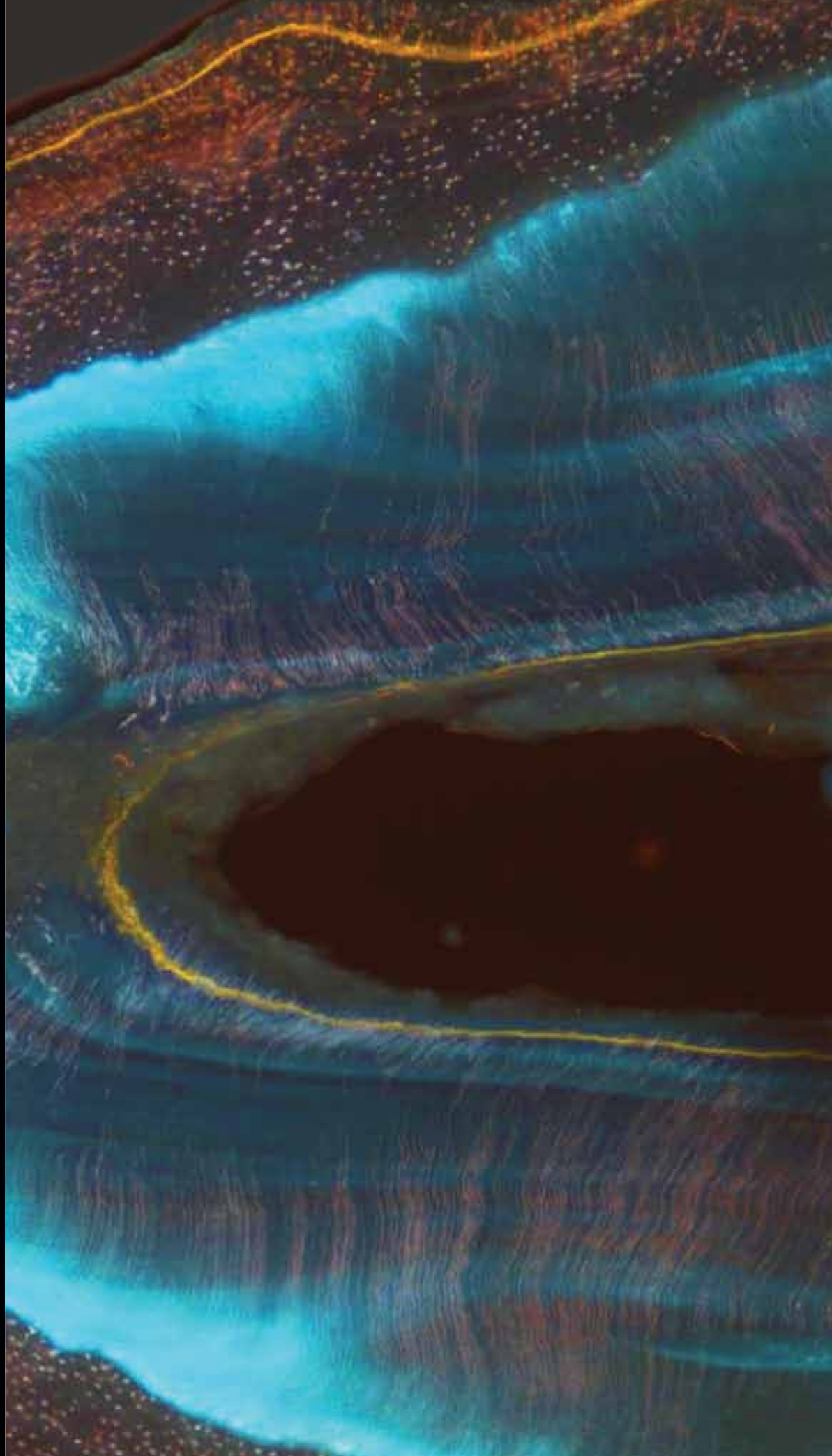
The Art and Science of Dentistry

Save the Date

San Francisco
California

Thursday — Saturday
Sept. 22—24
2011

cdapresents.com



Headlining Speakers

Stephen Buchanan, DDS, FICD, FACD

Endodontics

The New Art of Endodontics: Everything's Changed Except the Anatomy.....Friday morning lecture

The New Art of Endodontics: Gaining Procedural Mastery With New Tools.....Friday afternoon lecture

The New Art of Endodontics: The Workshop .....Saturday workshop

John O. Burgess, DDS, MS

Restorative Dentistry

The Directly Placed Adhesive Restoration.....Friday lecture

Bleaching Discolored Teeth and Restoring Endodontically Treated Teeth .....Saturday morning lecture

Dental Materials

Preventive Materials — Using Them to Build an Effective Practice .....Saturday afternoon lecture

Joe H. Camp, DDS, MSD

Endodontics

Pulpal Management of Young Permanent Teeth, Traumatic Injuries and MTA Uses.....Thursday morning lecture

Mechanical Instrumentation and Obturation of Root Canals .....Thursday afternoon lecture

Pulpal Management of Young Permanent Teeth, Traumatic Injuries and MTA Uses..... Friday morning workshop

Mechanical Instrumentation and Obturation of Root Canals ..... Friday afternoon workshop

John A. Kanca, DMD

Esthetic Dentistry

Adhesive Dentistry 2K11 .....Friday lecture

Gerard Kugel, DMD, MS, PhD

Cosmetic Dentistry

Esthetic Dentistry: Keys to Success ..... Saturday lecture

Karen Davis, RDH, BSDH

Dental Hygiene

America's Sweet Tooth Obsession and Its Impact on Oral and Systemic Health.....Thursday morning lecture

It's Not What You Say, or Is It? Effective Communication and Enrollment Skills for the Dental Team.....Thursday afternoon lecture

Howard S. Glazer, DDS, FAGD

Product Review

What's Hot and What's Getting Hotter!.....Friday lecture

First Impressions Do Count! Impressions and Provisional — No Fuss, No Muss ..... Saturday morning workshop

Composites Can Be Beautiful: Hands-on Composite Layering and Class II Restorations..... Saturday afternoon workshop

Mark E. Hyman, DDS

Practice Management

A 360 Slam Dunk Guide for Successful Teams .....Friday lecture

Ask and Ye Shall Receive! The Art of Getting to "Yes"..... Saturday lecture

Ronald Jackson, DDS, FAACD, DABAD

Operative Dentistry

Anterior Composite Artistry: Conservative, Versatile, Underused.....Friday lecture

Composite Artistry Workshop.....Saturday workshop

Corky Willhite, DDS

Esthetic Dentistry

Freehand Composite Bonding: The "Ultimate Esthetics" Course .....Thursday morning lecture

Transitional Bonding: Nontraditional Composite Restorations for Major Occlusal and Esthetic Changes.....Thursday afternoon lecture

Transitional Bonding: Adding Incisal Length for Function and Esthetics ..... Friday morning workshop

Making a Dark Tooth Bright ..... Friday afternoon workshop

Thursday, Sept. 22, 2011

Moscone South · Marriott Marquis · * Repeated Course
InterContinental · Dugoni School · > Continued Course

Thursday Exhibit Hall Hours
9:30 a.m.—5:30 p.m.

Required Courses — Ticket Required

7 AM | 8 AM | 9 AM | 10 AM | 11 AM | Noon | 1 PM | 2 PM | 3 PM | 4 PM | 5 PM | 6 PM

- **CDPA** *Robin*, MM Golden Gate A/B
- **Infection Control** *Morgan-Arns*, MM Golden Gate A/B

The Spot — Debuting the Smart Dentist Series, Free Lectures in the Educational Theater

- **Office Policy Handbook** *Thomason*
- **Insurance Refund** *Cheese-brough*
- **Dental Materials Q & A** *Burgess*

Workshops — Ticket Required

- **Embezzlement** *Gunn*, MS 202–210
- **Periodontics*** *Low*, MS 236/238
- **Lasers*** *Roshkind*, MS 250
- **Practice Management** *Beck/Jacobsen/Inman/Hoover/Noble/Oromchian/Salivar*, IC Ballroom A (5th Fl)
- **Implants*** *Sadowsky*, MS 232/234
- **Dental Team** *Wallace*, MS 252–260 >
- **Risk Management*** *Iwata/Watkins*, MM Golden Gate C
- **QuickBooks** *Gunn*, MS 202–210
- **Periodontics*** *Low*, MS 236/238
- **Lasers*** *Roshkind*, MS 250
- **Implants*** *Sadowsky*, MS 232/234
- > *Wallace*, continued
- **Risk Management*** *Iwata/Watkins*, MM Golden Gate C

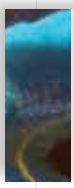
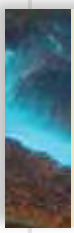


Exhibit Hall Grand Opening
Thursday, 9:30 a.m.

Express Lectures — Speakers New to the Podium

- **Financial Planning** *Keator*, MS 105
- **Photography** *Braunston*, MS 309
- **Treatment Planning** *Lim*, MS 105
- **Dental Team** *Perry*, MS 105
- **Prosthodontics** *Wallace*, MS 105



The Spot
Educational Theater Hours, 11 a.m.–2 p.m.
C.E. Pavilion
Free Internet Café
Wi- Fi Access

cda PRESENTS **Download the new app**

Lectures

- **Emergencies** *DiAngelis*, MS 300 >
- **Orthodontics** *Boyd*, MS 270–276
- **Anesthesia** *Budenz*, MS 307 >
- **Radiology*** *Miles*, MS 301
- > *DiAngelis*, continued
- **Orthodontics** *Boyd*, MS 270–276
- > *Budenz*, continued
- **Radiology*** *Miles*, MS 300

7 AM | 8 AM | 9 AM | 10 AM | 11 AM | Noon | 1 PM | 2 PM | 3 PM | 4 PM | 5 PM | 6 PM

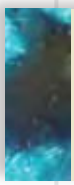
Lectures (continued)

7 AM | 8 AM | 9 AM | 10 AM | 11 AM | Noon | 1 PM | 2 PM | 3 PM | 4 PM | 5 PM | 6 PM

- **Esthetic Dentistry** *Wilhite*, MS 303/305
- **Practice Management** *Eitel*, MS 308
- **Sleep Apnea** *Spencer*, MS 220–226
- **Hygiene** *Davis*, MS 304/306
- **Risk Management** *Ray*, MS 302
- **Operative Dentistry** *McManama*, MS 100
- **Esthetics** *Miyasaki*, MS 310
- **Endodontics** *Camp*, MS 101
- **Practice Management** *Crosby*, IC Sutter (5th Fl)
- **Oral Pathology*** *Thomsen*, MS 309
- **BioFilms** *Webster*, MS 301 >
- **General Topic** *Christopher*, MS 307
- **Insurance** *Ingalls/ Salivar* IC Sutter (5th Fl)

- **Esthetic Dentistry** *Wilhite*, MS 303/305
- **Practice Management** *Eitel*, MS 308
- **Sleep Apnea** *Spencer*, MS 220–226
- **Hygiene** *Davis*, MS 304/306
- **Risk Management** *Ray*, MS 302
- **Operative Dentistry** *McManama*, MS 100
- **Esthetics** *Miyasaki*, MS 310
- **Endodontics** *Camp*, MS 101
- **Oral Pathology*** *Thomsen*, MS 309
- > *Webster*, continued
- **General Topic** *Christopher*, MS 303/305

For detailed information, see the **On-Site Guide.**



Family Hours on the Exhibit Floor

Daily, 9:30 a.m.–noon

Big changes often start small.

In an effort to do our part for the environment and save our members money, *CDA Presents* will no longer print course handouts for classes in Anaheim and San Francisco. A small effort that will save over 1.3 million pieces of paper each year. Plus, by investing the savings, we can continue to enhance the benefits of *CDA Presents* for members and their teams.

Attendees can access most course handouts at cdapresents.com and are welcome to print them out if they wish. In addition, each show's On-Site Guide will now provide space for note taking. And as always, audio recordings of many classes will be available for purchase at the conclusion of each show. By working together, we can do great things.

Friday, Sept. 23, 2011

Moscone South · InterContinental · Marriott Marquis · Dugoni School · * Repeated Course · > Continued Course

Friday Exhibit Hall Hours
9:30 a.m.—6 p.m.

Required Courses — Ticket Required

7 AM | 8 AM | 9 AM | 10 AM | 11 AM | Noon | 1 PM | 2 PM | 3 PM | 4 PM | 5 PM | 6 PM

- **Infection Control** *Morgan-Arns*, MM Golden Gate A/B
- **CDPA** *Curley*, MM Golden Gate A/B

The Spot — Debuting the Smart Dentist Series, Free Lectures in the Educational Theater

- **Practice Management** *Fornelli*
- **Peer Review** *Kozak*
- **Perio-dontics Q & A** *Low*

For detailed information, see the **On-Site Guide.**

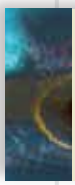
Workshops — Ticket Required

- **Esthetics** *Miyasaki*, MS 228/230
- **Esthetics** *Wilhite*, MS 236/238
- **Restorative** *Hooper*, MS 250
- **Radiology*** *Miles*, MS 252–260
- **Endodontics*** *Camp*, MS 232/234
- **Risk Management*** *Iwata/Watkins*, MM Golden Gate C
- **Esthetics** *Miyasaki*, MS 228/230
- **Esthetics** *Wilhite*, MS 236/238
- **Restorative** *Hooper*, MS 250
- **Radiology*** *Miles*, MS 252–260
- **Endodontics*** *Camp*, MS 232/234
- **Risk Management*** *Iwata/Watkins*, MM Golden Gate C

The Spot
Educational Theater
Hours, 11 a.m.–2 p.m.
C.E. Pavilion
Free Internet Café
Wi-Fi Access

Lectures

- **Implants*** *Sadowsky*, MS 301
- **Endodontics** *Buchanan*, MS 303/305
- **Lasers** *Roshkind/Coluzzi*, MS 202–210 >
- **Operative Dentistry** *Jackson*, MS 307 >
- **Insurance** *Nelle/Trehub*, IC Sutter (5th Fl)
- **Dental Products** *Osuna*, MS 308
- **Esthetics** *Kanca*, MS 304/306 >
- **Practice Management** *Hyman*, MS 100 >
- **Peer Review** *Thomas*, IC Ballroom B (5th Fl)
- **Assistant Program** *Wallace*, MS 105
- **CAMBRA** *Young*, MS 300
- **Oral Surgery** *Borris*, MS 101
- **Endodontics** *Buchanan*, MS 303/305
- > *Roshkind/Coluzzi*, continued
- **Ergonomics** *Osuna*, MS 308
- > *Kanca*, continued
- **Implants*** *Sadowsky*, MS 301
- > *Jackson*, continued
- > *Hyman*, continued MS 303/305
- **Assistant Program** *Wallace*, MS 105
- **CAMBRA** *Young*, MS 300
- **Oral Surgery** *Borris*, MS 101



Family Hours on the Exhibit Floor
Daily, 9:30 a.m.–noon

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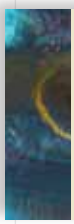
7 AM | 8 AM | 9 AM | 10 AM | 11 AM | Noon | 1 PM | 2 PM | 3 PM | 4 PM | 5 PM | 6 PM

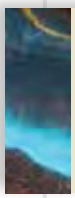
Lectures (continued)

7 AM | 8 AM | 9 AM | 10 AM | 11 AM | Noon | 1 PM | 2 PM | 3 PM | 4 PM | 5 PM | 6 PM

- **Preventative** *Creasey/Weinstein*, MS 270–276
- **Product Review** *Glazer*, MS 302 >
- > *Glazer*, continued
- **Health Care Reform** *Barnett*, MS 220–226
- **Restorative** *Burgess*, MM Golden Gate A/B >
- > *Burgess*, continued MS 304/306
- **Hygiene** *Menage Bernie*, MS 309 >
- > *Menage Bernie*, continued
- **Pediatric** *Ignelzi*, MS 310
- **Pediatric** *Ignelzi*, MS 310
- **Dental Care Access** *Robinson*, MS 220–226
- **Practice Management** *Mausolf*, MS 307
- **Practice Management** *Mausolf*, MS 308
- **General Topic** *Christopher*, MS 100
- **General Topic** *Christopher*, MS 100
- **Waste Management** *Hughes/Pichay*, MS 270–276
- **CORPORATE FORUM Technology** *Gane*, MS 220–226
- **Social Media** *Barry*, MS 270–276



Wine Seminar and Reception
Friday, 4–5:30 p.m.
$25
The Spot



CDA Party
Friday, 7–10 p.m.
$65 per person
Exploratorium

Saturday, Sept. 24, 2011

Moscone South | Marriott Marquis | * Repeated Course
InterContinental | Dugoni School | > Continued Course

Saturday Exhibit Hall Hours
9:30 a.m.—4:30 p.m.

Required Courses — Ticket Required

7 AM | 8 AM | 9 AM | 10 AM | 11 AM | Noon | 1 PM | 2 PM | 3 PM | 4 PM | 5 PM | 6 PM

- **CDPA** *Curley*, MS 304/306
- **Infection Control** *Cuny*, MS 304/306

The Spot — Debuting the Smart Dentist Series, Free Lectures in the Educational Theater

For detailed information, see the **On-Site Guide.**

- **Ergo-nomics** *Kagan*
- **Practice Manage-ment** *Van Dyk*
- **Ergo-nomics** *Kagan*
- **Ergo-nomics** *Kagan*

Workshops — Ticket Required

- **CORPORATE FORUM Invisalign Clear Essentials I** *Gates*, IC Ballroom C (5th Fl)
- **CORPORATE FORUM Invisalign Clear Essentials II** *Goodman*, IC Ballroom B (5th Fl)

7 AM | 8 AM | 9 AM | 10 AM | 11 AM | Noon | 1 PM | 2 PM | 3 PM | 4 PM | 5 PM | 6 PM

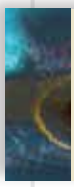
Workshops — Ticket Required (continued)

7 AM | 8 AM | 9 AM | 10 AM | 11 AM | Noon | 1 PM | 2 PM | 3 PM | 4 PM | 5 PM | 6 PM

- **Implants** *La Barre*, Dugoni School >
- **Lasers** *Roshkind/Coluzzi*, MS 236/238 >
- **Overdentures** *Schnell/Roberts*, Dugoni School >
- **Anterior Composites*** *Jackson*, MS 228/230
- **Temporaries** *Glazer*, MS 250
- **Endodontics*** *Buchanan*, MS 232/234
- **Practice Management** *Castagna/Moore*, MS 252–260
- > *La Barre*, continued
- > *Roshkind/Coluzzi*, continued
- > *Schnell/Roberts*, continued
- **Anterior Composites*** *Jackson*, MS 228/230
- **Composites** *Glazer*, MS 250
- **Endodontics*** *Buchanan*, MS 232/234
- **Practice Management** *Castagna/Moore*, MS 252–260

Lectures

- **Practice Transition** *Giroux*, MS 202–210
- **Cosmetic Dentistry** *Kugel*, MS 303/305 >
- **Dental Benefits** *Perry*, MS 300
- **Restorative** *Burgess*, MS 100
- **Assistant** *Miles*, MS 308
- **Geriatric** *Thomas*, MS 301
- **Ergonomics*** *Menage Bernie*, MS 220–226
- **Practice Management** *Mausolf*, MS 307
- **Ergonomics** *Osuna*, MS 105
- **Periodontics** *Low*, MS 310
- **General Topic** *Scappatura*, MS 101
- **Prosthodontics** *Daher*, MS 302 >
- **Pharmacology** *Johnson*, MS 309
- **Esthetics** *Hooper*, MS 270–276 >
- **Practice Management** *Hyman*, MS 304/306 >
- **Practice Transition** *Giroux*, MS 202–210
- > *Kugel*, continued
- **Dental Benefits** *Alterton/Cheesebrough/Dougan/Stewart*, MS 300
- **Materials** *Burgess*, MS 100
- **Assistant** *Miles*, MS 308
- **Geriatric** *Thomas*, MS 301
- **Ergonomics*** *Menage Bernie*, MS 220–226
- **Practice Management** *Mausolf*, MS 307
- **Dental Products** *Osuna*, MS 105
- **Periodontics** *Low*, MS 310
- **General Topic** *Scappatura*, MS 101
- > *Daher*, continued
- **Pharmacology** *Johnson*, MS 309
- > *Hooper*, continued
- > *Hyman*, continued



Family Hours on the Exhibit Floor

Daily, 9:30 a.m.–noon

The Spot

Educational Theater Hours, 11 a.m.–2 p.m.
C.E. Pavilion
Free Internet Café
Wi-Fi Access

cda PRESENTS
New app

Join the conversation

Want to plan the perfect meeting experience? There's an app for that! From their mobile devices, Blackberry and Windows Mobile users can download the app from cdapresents.com. IPhone and Android users can search for CDA Presents in their respective app stores. Available in September.

facebook.com/cdafan

#cdaSF

CDA Party at the exploratorium®

It was created by a physicist and houses a geometry playground, microscope imaging station and a calculator powered by the force of gravity. It's the Exploratorium, the destination of this year's CDA Party. Join us for a bountiful buffet, fascinating exhibits and live music from '80s cover band Tainted Love.

Friday, Sept. 23
7–10 p.m. (please arrive by 8 p.m.)

Exploratorium
3601 Lyon St.
(Transportation available from the Moscone Center)

$65 per person/Event # 044
Two complimentary beverages will be provided, and a cash bar will be available throughout the evening.

Party where art and science collide.

The meeting place to learn, engage and recharge!

the spot

Featuring:

- An educational theater providing C.E. credits
- Cool and new products
- Internet Café and Wi-Fi lounge
- C.E. Pavilion

Experience it.

San Francisco | Moscone South

Frequently Asked Questions

Is there an advantage to registering online?

Yes! When you register on cdapresents.com, you will be able to secure an immediate spot in any available ticketed course. You will also receive a confirmation number upon completion. Registrations received via mail or fax must be processed in the order they are received, and they do not secure an immediate spot in courses.

When will I receive my badges?

You will receive your advance registration materials at least two weeks prior to the meeting if you register by the Aug. 17 preregistration deadline. (Note: Badge mailings will begin mid-July.) This includes registrations completed via the Internet, fax or mail. **If you are a CDA member, membership dues must be paid for the current year to complete your registration.**

How do I correct a misspelled badge?

Fax a copy of the badge to 877.714.3184 with the correction by **Aug. 23, 2011**. You can also go to Badge Correction on-site at the Moscone South Convention Center.

What if I lose my badge?

There is a $10 on-site badge replacement fee. Replacement badges can be acquired at the Badge Correction Booth in the on-site registration area.

What if I have questions or concerns regarding registration?

Call CDA's Contact Center toll-free at 800.232.7645 or visit **cdapresents.com**.

What is CDA's cancellation policy?

Cancellations must be made in writing and postmarked no later than **Aug. 23, 2011**. All requests should be mailed to the address on the registration form and include any badges or tickets. After **Aug. 23, 2011**, refunds will not be given.

What do I need to bring to register on-site?

A photo I.D. and, if applicable, your ADA card, student I.D. or Dental Board auxiliary license. See the Preliminary Program for the appropriate on-site registration fee.

Can allied dental health professionals register without a dentist?

Yes, CDA welcomes ADHPs. Registration fees will apply, as listed in the Preliminary Program.

How do I receive C.E. credit for attending a course?

Visit cdapresents.com or refer to the Preliminary Program for details on obtaining C.E. credit.

How can I contact someone attending the show?

CDA will have an electronic message center available in the Internet Café or The Spot for attendees to retrieve email, check phone messages, and send and retrieve electronic messages to and from attendees.

How can I get restaurant information or make reservations?

There will be a restaurant desk in the Moscone South Convention Center lobby to answer your questions and assist you with making reservations.

Will there be a coat/baggage check available?

A coat/baggage/stroller check will be available near the registration area for $2 per item. **Please note: Strollers are not allowed on the exhibit floor.**

Are children permitted in the exhibit hall and lectures?

For the safety and convenience of all attendees, children 10 or younger will only be permitted in the exhibit hall from 9:30 a.m. until noon. CDA provides a wonderful child-care program at the Marriott Marquis. Children are not permitted in the lectures or workshops, and **strollers are not permitted on the exhibit floor.**

I need special assistance to be able to attend the show. How do I request help?

If you or someone in your group requires special assistance to fully particiapte in *CDA Presents*, please call CDA at 916.554.4949.

CDA Presents will feature more than 400 exhibiting companies showcasing the latest in dental technology, products and services. Stay ahead of the curve by exploring the innovative new products being launched in the exhibit hall.

Thursday–Saturday
Sept. 22–24, 2011

Visit cdapresents.com to maximize your tradeshow experience.

Grand Opening
Thursday, 9:30 a.m.

Exhibit Hall Days and Hours
Thursday, 9:30 a.m.–5:30 p.m.
Friday, 9:30 a.m.–6 p.m.
Saturday, 9:30 a.m.–4:30 p.m.

Family Hours
Daily, 9:30 a.m.–noon

Registration Hours
Thursday, 6:30 a.m.–5:30 p.m.
Friday, 6:30 a.m.–6 p.m.
Saturday, 6:30 a.m.–4:30 p.m.

Exhibitor Listing


Extract... ⌥⌘X
Filter Gallery...
Liquify... ⇧⌘X
Pattern Maker... ⌥⇧⌘X
Vanishing Point... ⌥⌘V
Artistic
Brush Strokes
MODE
ZOOM
PILOT
ON
OFF
OFF
SLAVE
MENU
JUMP
INFO.
ON
OFF
Curves
Channel: RGB
OK
Cancel
Load...
Save...
Smooth
Auto
Options...
Input: 177
Output: 163
Preview
Levels
Channel: RGB
Output Levels: 0 1.00 255
Load...
Save...
Auto
Options...
Preview
Output Levels 0 255
Screen Mode
Extras
Show
Snap
Snap To
Lock Guides
Clear Guides
New Guide...
Lock Slices

CDA JOURNAL, VOL 39, Nº8

Dentist-Technician Collaboration in the Digital Age: Enhancing Outcomes Through Photography, Teamwork, and Technology

TODD R. SCHOENBAUM, DDS, FAGD, AND YI-YUAN CHANG, MDC

ABSTRACT The cornerstone of a strong and successful dentist-technician relationship is communication. High-level collaboration across distances requires modern technology to communicate expectations, potential outcomes, and limitations. Carefully calibrated digital photography is an essential element in this inherently artistic process. This ensures a system of checks and balances to minimize the potential for miscommunication and remakes. Forthcoming technologies will allow dentist-technician teams to reach ever-greater levels of collaboration.

AUTHORS

Todd R. Schoenbaum, DDS, FAGD, is assistant clinical professor at the University of California, Los Angeles, Division of Restorative Dentistry, and assistant director of UCLA's Continuing Education. He is on faculty in the UCLA Center for Esthetic Dentistry and maintains a private practice within the UCLA faculty group dental practice.

Yi-Yuan Chang, MDC, is a 2001 graduate from Louisiana State University School of Dentistry in New Orleans with a bachelor's degree in dental technology and from the University of California, Los Angeles' master dental ceramist program in 2003. He currently serves as assistant director and teaches various porcelain layering hands-on course.

At the core of all strong dentist-technician relationships lies a foundation of mutually shared goals. Both parties involved must possess the same desire for excellence and the willingness to make it happen. It has long been acknowledged that restorative dentistry inherently involves teamwork between the dentist and technician, and, as our profession continues to evolve, communication via digital mediums is fast becoming the go-to method.[1] Treatment decisions can be made or changed with both parties reviewing the same set of data at different locations (**FIGURE 1**). With the right attitude, skill, and training, digital technology can greatly enhance the outcomes of the dentist-technician team.[2]

Too often the extent of communication between dentists and technicians is the weak link in the restorative process. Dentists are often guilty of quickly jotting down a few notes about the case, a shade, and everything gets thrown in a box to be shipped to the laboratory. Technicians are then pushed to make do with what they get. In the end, nobody is satisfied by the result and the patient ends up with an inferior restoration.

This scenario is all too common, and though many of us have adapted ways to make it work, it does not deliver the best quality of which we are capable. We have managed with this system because it is what we are taught, and it is all we have known. Though it

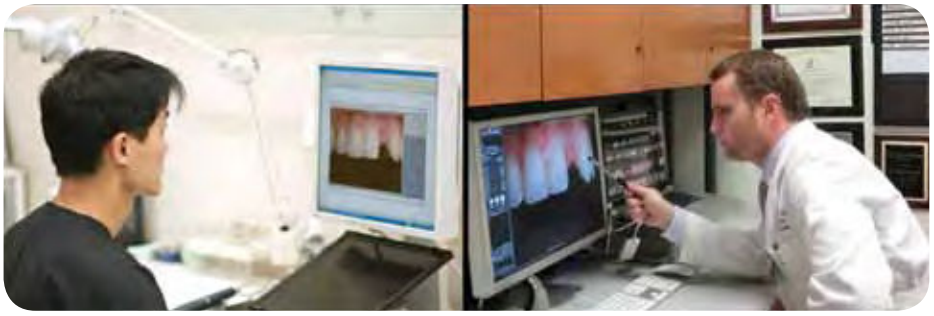


FIGURE 1. Even when separated by significant distances, high-level communication is possible between the dentist and technician through dedicated implementation of photography, video, and software. Here, the ceramist and the dentist discuss the soft-tissue esthetics of a case while viewing identical images.

FIGURE 2. A portable digital dental office consists of a digital SLR with macro lens and dual-point flash, photo printer, and a laptop computer with imaging software.

FIGURE 3. When possible, it is advisable for the ceramist to take the photo survey themselves, within their laboratory. This ensures full control over the lighting and a familiar environment in which the ceramics will be fabricated. When the patient is unable to visit the laboratory, the dentist or auxiliary must take the appropriate photo survey and email it to the technician or upload it to a secure collaboration website.

FIGURE 4. A modern dSLR camera equipped with a macro lens, dual-point macro flash, and bracket. This camera (Canon 7D) is also capable of recording HD video when needed.

may work for straightforward posterior single units, something much better is needed as the treatment complexities and esthetic demands increase.

The keystone of stronger dentist-technician relationships is communication.[3] An open and honest, two-way line of communication will result in better information, better preparations, and better restorations. The dentist should utilize the expertise and experience of their technicians to their advantage, but be open to hearing what is needed to improve the result going forward. Ultimately, the highest quality results require clear information, honest communication, skill, and a mutual respect between the dentist and the technician.

Digital technology (**FIGURE 2**) (i.e., photography, email, digital models, digital prescriptions, and collaboration software) empowers dentists and technicians to create the work that is the best of their capability, within a process that is more enjoyable to both parties. Digital communication allows dentists and technicians the opportunity to make decisions quickly and concisely before, during, and after treatment. The increased potential will greatly benefit dental practices and laboratories of all styles and sizes.

FIGURE 5. The LinearGuide 3-D shade guide is well-suited to dental shade photography due to its use of cards that allow multiple shade tabs to be held in alignment simultaneously.

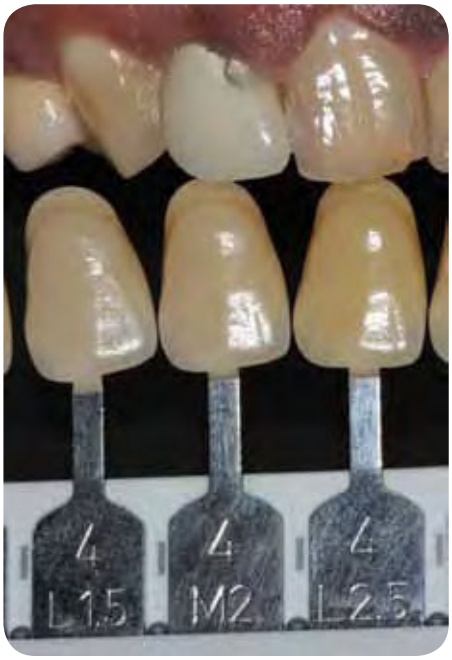


FIGURE 6. It is imperative that the shade tabs be placed parallel to, and in the same A-P plane as, the teeth being matched. It is the preference of the authors to have the shade tabs aligned cervical to incisal as shown.

Digital Photography

Digital photography is the fastest and most effective way to start using digital technology to increase communication.[4-6] In practice, the dentist, assistant or ceramist takes a baseline or comprehensive images survey and uploads these to the technician (**FIGURE 3**). Most email systems, as of 2011, will easily allow emails up to 10MB at a time. Multiple emails can be sent if all the images do not fit within 10MB. Images can also be uploaded via a secure FTP server or through an online collaboration website. The technician can then bring their expertise and experience to the dentist to make suggestions and comments about the course of treatment. This is extremely valuable for esthetic cases, where the preparation designs, teeth involved, and material selection can make all the difference between success and failure. The technician can also help the dentist determine if the patient desires are in fact possible. This can be very useful in determining how to treat a case, which cases not to treat, and which cases may require additional procedures (i.e., surgery, orthodontics, endodontics) to complete satisfactorily.

When developing an image series, it is important for the dentist and technician to communicate with each other to find a balance between the images needed for the diagnosis and treatment planning and the time required to take them. To ensure consistency, it is important to determine a stringent calibration protocol for the images.

The following points are the authors' standard operating procedures for diagnostic images:

- Photographs are to be taken with a dSLR camera with a 100 mm macro lens and dual point flash (**FIGURE 4**).
- The teeth are to be dry and free of debris, saliva, blood, etc. While being careful not to desiccate the teeth, it is important to remove any saliva that may mask critical information.
- All mirrored images are to be flipped to proper L-R orientation. Consistency here helps to avoid any confusion on which teeth are which.
- The VITA 3-D shade system (Master or LinearGuide) (**FIGURE 5**) is to be used. This shade guide was selected because it matches the shade system of the ceramic being used by the author and because of its clinical efficiency. Ceramists using a non-Vita ceramic system should advise their doctors on the appropriate shade guide to use.
- The shade tabs are to be aligned cervical to incisal in the same plane as the teeth being matched (**FIGURE 6**).
- The shade images are to be shot in RAW format. This allows for consistency across cameras even with small variations in lighting and settings.
- JPEG format is acceptable for all nonshade images. RAW is unnecessarily cumbersome for most nonshade images when calibrated JPEG setting are used consistently. Full-size JPEGs retain all the resolution of the RAW image, though they don't allow for as accurate color corrections.
- A dual-point flash system (**FIGURE 7**) is to be used for all anterior images. Dual-point flashes positioned out from the lens horizontally reveal line angles, translucency, and surface texture better than any current alternative. An adjustable bracket is helpful to properly place the flash heads depending on the image being taken.
- A ring flash (**FIGURE 8**) is acceptable for the baseline posterior image survey and occlusal images. Though easier to use, the ring flash is best reserved for posterior, mirror, and surgical photos. The light source is positioned too close to the lens axis to fully capture esthetic details.
- The specular highlights should be limited to the middle and gingival third of the teeth (**FIGURE 9**). If these

FIGURE 7. A dual-point macro flash system allows each flash head to be positioned further away from the axis of the lens which enhances the fidelity of the image. This is essential in photographing anterior teeth to capture the subtleties of chroma, surface anatomy and translucency. The flash heads can also be moved in close to the lens axis, useful for posterior mirror images.

FIGURE 8. Though easier to use for posterior and mirror images, the ring flash is not well-suited to the demands of matching anterior teeth. The reason for this deficiency is due to the flash proximity to the central lens axis.

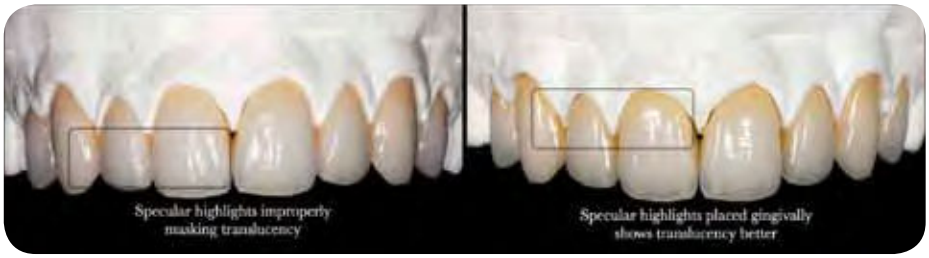


FIGURE 9. When utilizing photography for the purposes of matching anterior teeth, it is important that the specular highlights (white reflection areas) cover as little of the incisal half of the tooth as possible. The specular highlights should be kept in the gingival portion of the tooth to avoid masking the characterization of the incisal edge. This can be accomplished by placing the flash heads slightly above the lens axis.

FIGURE 10. CS baseline posterior image survey. The authors use a small but concise image survey for isolated posterior units consisting of shade image that includes relevant shade tabs from the LinearGuide 3-D, preop occlusal image to convey staining and characterization, and prep image.

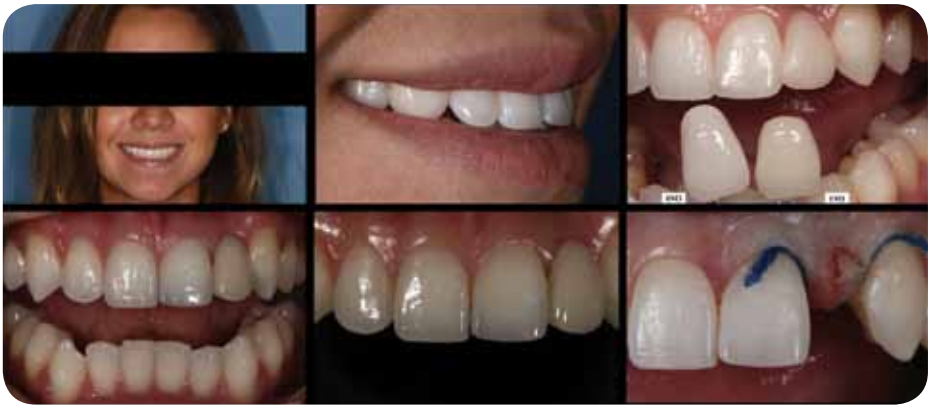


FIGURE 11. CS baseline anterior image survey. The authors have determined that these six images are required for anterior cases with limited change to form and function. These are the minimum images required to convey the needed information to the ceramist when the patient cannot be physically present in the laboratory.

bright white reflections fall on the incisal third of the tooth, it is impossible for the ceramist to see the very information the shade photo was attempting to capture. The position of the highlights is affected by the camera position, the flash head position, and the anatomy of the teeth. The specular highlights can be moved gingivally by shooting from a slight superior angle or by repositioning the flash heads slightly above the lens.

- All JPEGs are to be taken with calibrated white balance setting. Most SLR cameras have a function to set a custom white balance. This is done by taking a photo of a photographic gray card under the exact same setting and flash setup in which the camera will be used. The custom white balance is then set to that image.
- The magnification and aperture settings can be adjusted slightly as needed. Not all mouths are the same size, and occasionally the magnification setting needs to be slightly altered. The aperture can also be varied depending on preferences (i.e., f/22-f/45 is acceptable when f/32 is indicated).
- The magnification settings are based on the 1.5-1.6x crop sensors found on most digital SLR cameras. SLR cameras labeled as full frame (i.e., Canon 5D, Nikon D700) would use the settings below divided by 1.6 or 1.5, respectively.
- The macro lens needs to have a focal length of 85 mm-105 mm. Lenses shorter than 85 mm will tend to produce barrel distortion of the image and require the camera to be so close to the mouth that much of the flash lands on the cheeks.

The authors' image survey criteria:

The CS Baseline Posterior Image Survey (**FIGURE 10**)

(For posterior units in a nonesthetic area)

- Retracted shade image (RAW, 1:3 magnification, f/32)
- Occlusal quadrant image (JPEG, 1:3 magnification, f/32)
- Prep image (JPEG, 1:3 magnification, f/32, for all ceramic materials)

The CS Baseline Anterior Image Survey (**FIGURE 11**)

(For anterior units with minimal change of form and function)

- Full face (JPEG, 1:15 magnification, f/8)
- Retracted center position (JPEG, 1:3 magnification, f/32)
- Fricative ("F") position in profile (JPEG, 1:3 magnification, f/32)
- Retracted close-up with contraster (JPEG, 1:1.5 magnification, f/32)
- Retracted shade image (RAW, 1:3 magnification, f/32)
- Prep image (JPEG, 1:3 magnification, f/32, for all ceramic materials)

The CS Comprehensive Image Survey (**FIGURE 12**)

(For all cases expected to include significant changes to form, function or overall esthetics)

- Full face (JPEG, 1:15 magnification, f/8)
- Lips in repose ("M") position (JPEG, 1:3 magnification, f/32)
- Maximum smile ("E") position (JPEG, 1:3 magnification, f/32)
- Fricative ("F") position in profile (JPEG, 1:3 magnification, f/32)
- Retracted shade image (RAW, 1:3 magnification, f/32)
- Smiling center (JPEG, 1:3 magnification, f/32)
- Smiling left lateral (JPEG, 1:3 magnification, f/32)
- Smiling right lateral (JPEG, 1:3 magnification, f/32)
- Retracted center (JPEG, 1:3 magnification, f/32)
- Retracted left lateral (JPEG, 1:3 magnification, f/32)
- Retracted right lateral (JPEG, 1:3 magnification, f/32)
- Retracted center with contraster (JPEG, 1:1.5 magnification, f/32)
- Retracted left lateral with contraster (JPEG, 1:1.5 magnification, f/32)
- Retracted right lateral with contraster (JPEG, 1:1.5 magnification, f/32)

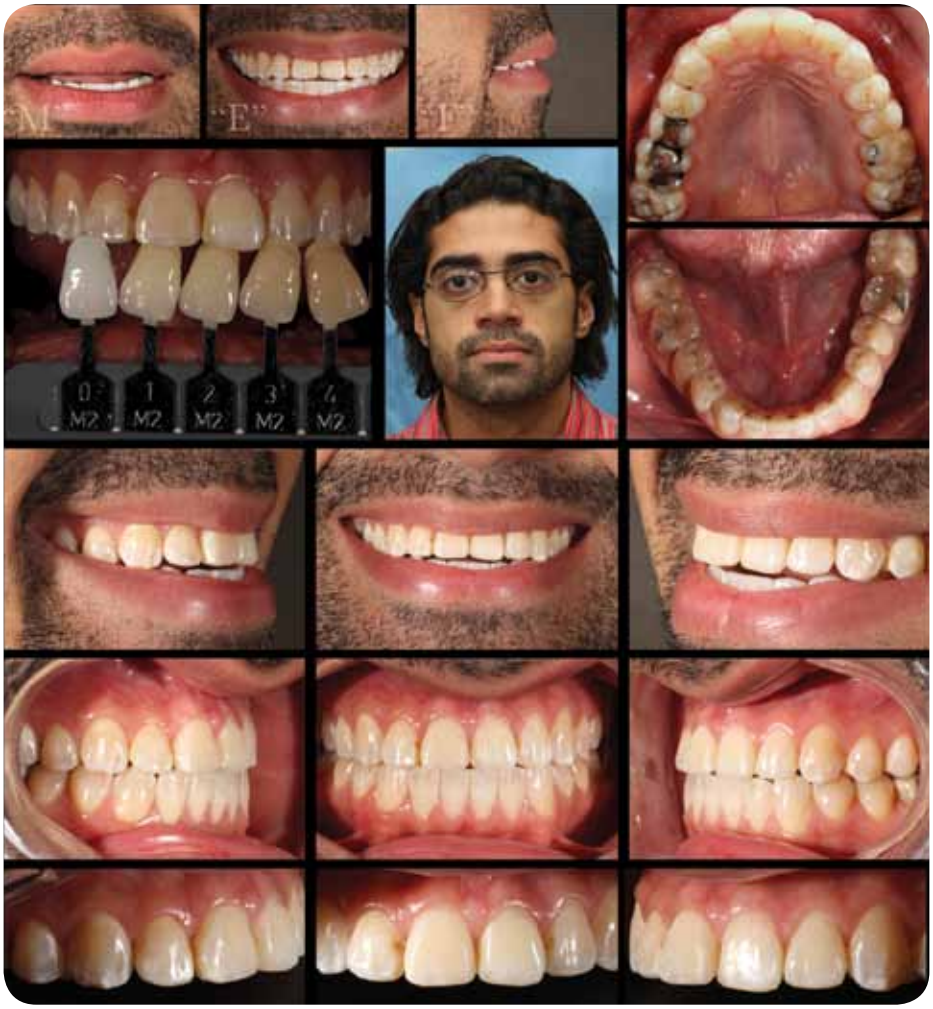


FIGURE 12. The CS comprehensive image survey is a standardized preoperative diagnostic series that provides all needed photographic information to properly diagnose and treatment plan complex cases based on the esthetics and function of the teeth and soft tissues. The phonetic (M, E, and F) images at the top can be supplemented with video.

- Maxillary occlusal (JPEG, 1:3 magnification, f/32)
- Mandibular occlusal (JPEG, 1:3 magnification, f/32)
- Prep image (JPEG, 1:3 magnification, f/32, for all ceramic materials)

Most of the newer SLR cameras are also equipped with a video feature (**FIGURE 13**). Video provides the technician with even more data than the photographs and can generally be taken in the same amount of time as the photographs.[7] The authors have found this to be particularly helpful with the dynamic images of the soft tissue (M, E, and F positions). Video fully captures the movement of the soft tissue in relation to the teeth. Video capture of the M, E, and F positions prevents the common error of taking the picture at the incorrect time, resulting in incorrect diagnosis of display at rest, maximum display, and A-P position of the incisal edge. Some technicians also appreciate a full-face video of the patient saying their name and a few brief ideas about what they are expecting in the final result. This helps the technician get a "feel" for the personality and desires of that particular patient. A short video series will also provide a deeper understanding of the preoperative condition.

The settings on the camera need to be changed to record video under the ambient office lighting (there are LED light panels well-suited to video work if supplemental light is desired). The authors have found the following settings to work well for video: AWB, ISO 800, f/8, Image Stabilization on. It is also helpful to use a stabilized zoom lens with a moderate focal length (i.e., 17-55 mm) to minimize camera shake and provide more flexibility in smaller offices.

Other Photographic Calibration Issues

Shade guide: It is important for the dentist and technician to discuss which shade guide to use. Though many dentists are most comfortable with the Vita Classic shade system, some porcelains are coded to the newer Vita 3-D shade system. Although there are cross-over tables available, it is advisable that the dentist use the shade guide matched to the ceramic that the ceramist will be using on the case. The dentist and ceramist may also find it useful to create a custom shade guide made of the actual porcelain if it is determined that the appropriate shade guide fails to adequately match the porcelain system. In such cases the ceramist would fabricate custom wedge-shaped tabs from the porcelain.

Shade images: Generally speaking, most esthetic cases will require more than one shade image. The authors have found it useful to take the following shade images:

- VITA LinearGuide 3-D value card aligned with the tooth to be matched; and
- VITA LinearGuide 3D chroma/hue card aligned with the tooth to be matched.

Photography all but eliminates one of the most confounding variables in shade matching, ambient light.[8] With proper calibration, the light produced by flash units is very consistent in color temperature thus minimizing the effects of ambient light temperature fluctuations. For cases where the tooth to be matched

FIGURE 13. Many of the newer dSLR cameras are equipped with the ability to shoot HD video. This is especially useful when alterations to form and function of the anterior teeth are anticipated, as it gives a more elaborate understanding of where the teeth are positioned and the way they function with relation to the lips and perioral musculature.

FIGURE 14. Even when properly exposed, the full complexity of the anterior dentition can be difficult to convey. These images illustrate just how important it is to precisely follow imaging protocol. The image on the left clearly lacks the detail of the image on the right (same patient). The primary reason for this difference is the slight under exposure of the image on the right. Other factors include proximity of the tongue and the position of the specular highlights.

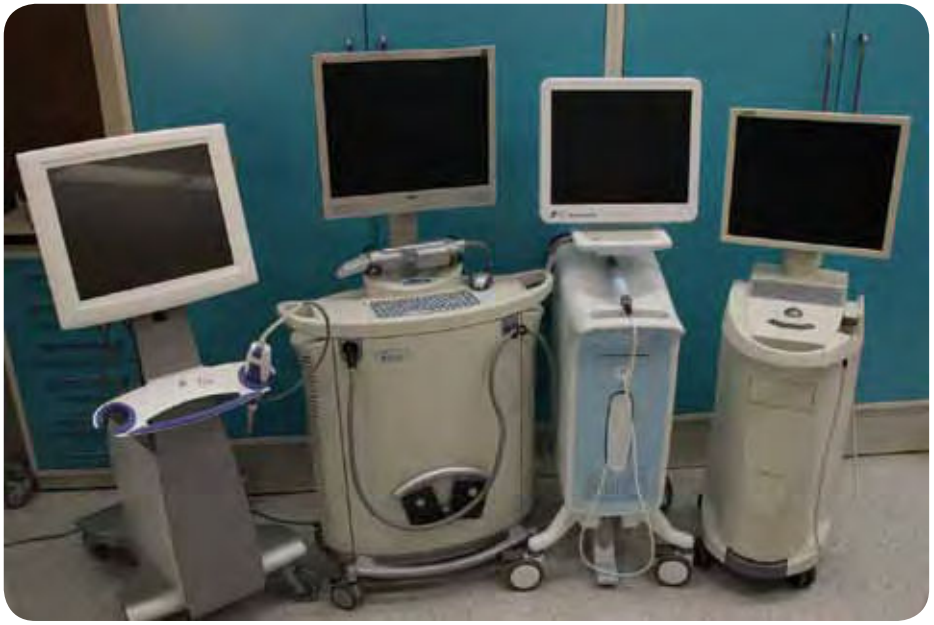


FIGURE 15. Digital Impression Units and CAD/CAM devices at the University of California, Los Angeles, Center for Esthetic Dentistry: LAVA COS, iTero, E4D, Cerec.

contains a significant amount of translucency and characterization, it is also quite useful to take additional images underexposed by 1/2 to 1 stop. The underexposed image reveals many details not seen in the properly exposed shade images (**FIGURE 14**). To increase clinical efficiency, this can be done by engaging the automatic flash bracketing (AFB) option on the flash control unit. It is also critically important to check the images to ensure that the specular reflections (overexposed white areas) do not mask critical areas of the teeth to be matched and that the tongue is not placed against the backside of the teeth. The ceramist should also indicate to the dentist whether they like the tabs aligned edge to edge or cervical to edge.

Monitor Calibration: There are devices/software that will properly calibrate the color reproduction on monitors. This can be quite valuable if the dentist and technician are seeing dramatically different results on shade photos. It is advisable that the same brand of device be used on both computers.

Digital Models

As digital impression units (i.e., E4D, LAVA COS, iTero, and CEREC AC) (**FIGURE 15**) become more commonplace, we will see a greatly expanded ability of the dentist and technician to collaborate on everything from margin position to implant placement for full-mouth reconstruction.[9] Currently it is possible for the technician to review digital models (**FIGURE 16**) with the dentist even before the model is made and the dies are digitally ditched. Both the dentist and the technician can review the case while viewing identical digital models that can be manipulated 3-dimensionally. Some systems even allow the users to view the models stereoscopically using 3-D glasses. Even on relatively simple cases this can save a significant amount of time and energy, while improving the quality of the work being produced.

Digital modeling can also be used in the treatment planning and design of custom implant abutments, bars, and substructures. The technician can create the digital abutment and send the 3-D model to the dentist for verification or alteration before the milling even starts. Though not readily available at this time, future systems will be able to integrate the data from the CBCT. The preoperative treatment planning can then start with the

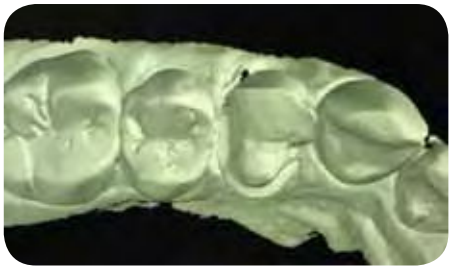


FIGURE 16. Dentists and technicians can now discuss case details utilizing identical virtual models in real-time. Such models can be annotated and marked.

desired position of the final restorations, but account for the necessary design of the abutments and screw access, all while being based on where the bone actually is and where the implants should be placed. The profound effect of such technology will radically alter the way complex implant cases are treatment planned and greatly enhance the potential outcomes.

Digital Prescriptions

One common complaint from laboratories (after bad impressions and lack of photographs) is that the prescription is often lacking important information and/or is unreadable. Digital prescription systems will help to mitigate both of these problems by providing a checklist type of form that will help to ensure that all important decisions have been discussed and decided upon, while completely eliminating the problems associated with legibility. Digital prescriptions have already been shown to significantly reduce errors in hospital settings.[10] Digital prescriptions are already in use with the digital impression units and are being implemented into many office and laboratory management software programs as well.

Case Collaboration Software

One of the newest and most promising developments in the world of digital dental technology is the creation of collaboration software (i.e., Brightsquid). Such website-based software allows multiple treatment providers to review, comment, and annotate multiple types of diagnostic data (i.e., CBCT scans, radiographs, photographs, videos, and 3-D models). The beauty of such

systems is that the collaboration effort can include all providers involved with the case, and unlike email it provides a centralized, HIPAA-compliant area for the discourse to occur. For example, preoperative diagnostic images, videos, and radiographs are posted by the restorative dentist. The surgeon and technician for the case are given access to the file and can make comments and recommendations about the treatment during the planning stages and upload the CBCT dicom file. A finalized treatment plan is developed by all three team members before the case is presented to the patient. When the treatment begins, all involved providers have already contributed their expertise to the case resulting in better treatment with fewer surprises.

Conclusion

The ability to consistently deliver esthetic restorations at the highest level demands that the communication between the dentist and the ceramist be accurate, efficient, and precise. Digital technology has completely reshaped the abilities of the dental team to communicate across distances at a level that was previously only possible when all members of the team practiced within the same physical location. Clear communication through digital media helps to create teams that are productive, satisfied, and performing to the absolute best of their abilities. Digital technologies will continue to evolve at a rapid pace resulting in previously unimaginable results and efficiencies of the entire dental treatment. The most successful dental teams of the future will undoubtedly be built upon a strong sense of collaboration making full utilization of these digital technologies. ■■■■

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The Relationship Between Dentists and Dental Laboratories — Predictions for the Future

BENNETT NAPIER, CAE

ABSTRACT This article provides an overview of the key market changes that are impacting the day-to-day relationship between dentists and dental laboratories and technicians. There are a variety of factors that facilitate the need for broader communication between dentists and dental technicians.

AUTHOR

Bennett Napier, CAE, has served as coexecutive director, National Association of Dental Laboratories and its affiliate, National Board for Certification in Dental Laboratory Technology. He also has served as executive director of the Florida Dental Laboratory Association and the Florida Dental Hygiene Association and is a past president of the Tallahassee Society of Association Executives and the Florida Society of Association Executives.

According to the U.S. Department of Labor, Bureau of Labor Statistics, there are more than 10,000 dental laboratories in the United States and 33,600 dental technicians.[1] These numbers represent a 20 percent consolidation of both categories in the last two years. The market changes are a result of a number of factors: the economic downturn, competition from offshore dental laboratories, increased capital costs to operate a dental laboratory and natural attrition due to an aging technician workforce. Over the next 10 years, it's predicted that the number of U.S. dental laboratories could plateau at 7,000.

This shift in the domestic dental laboratory market is happening at a time when according to the U.S. Centers for Medicare and Medicaid, the demand for dental services is predicted to increase in the United States from $87 billion in 2005 to $167 billion by 2015.[2] The ability of dentists to work with qualified dental laboratories domestically is paramount to good patient care.

The rapid change taking place in the dental laboratory industry has resulted in different skills for a dental technician. Recruitment of individuals into the profession now includes graduates of computer-imaging schools, computer-aided design/computer-aided manufacturing (CAD/CAM) light manufacturing vocational schools, and medical device technicians. There remains a need to recruit professionals with a strong artistic flair. These new skill sets are vastly different, even from just 10 years ago. With the increasing demand for dental services, the U.S. Department of Labor predicts the domestic technician workforce will begin to go up from current levels at 5-7 percent per year through 2015.[3]

It's important to note some of the key factors that are impacting the dentist/dental laboratory relationship:

- The U.S. Food and Drug Administration import trade data from 2010 for

the dental laboratory industry classification code indicates that $1.32 billion in dental laboratory-related sales was fulfilled by foreign dental laboratories. That represents 20 percent of U.S. sales and nearly 40 percent of actual restorations. Keep in mind that a portion of that work is shipped direct by large dental group practices and some U.S. dental schools.[4]

- Opening a dental laboratory in today's market can require a minimum capital investment of $200,000. In the early 1990s, one could open a dental laboratory for less than $20,000.
- The number of active ADA-accredited dental laboratory technology programs at community colleges and universities has declined 62 percent since 1992.[5]
- Dental implants and digital impression systems, although a small piece of the restorative market, are growing at 15-17 percent annually. The complexity of implants and the communication bridge that digital impressions provide require an enhanced service level interface between dentists and dental technicians.[6]

Technical Training and Competency

Since the 1970s, more than 27,000 dental technicians have graduated from formal dental laboratory technology schools. The number of ADA-accredited programs in the United States can now produce a graduate class of only around 300 students annually.[5]

Reversing the trend of school closures is extremely important as in order to be successful in the dental relationship, a comprehensive foundation of knowledge is necessary, now more than ever. This is especially true when one considers that dental schools teach almost no clock hours in dental laboratory technology. This divide is exacerbated by the fact that in many states, more laboratory-related duties in the clinical setting are delegated/relegated to dental assistants or hygienists that also rarely have training in laboratory technology.[7]

The proliferation of technology, both in terms of dental materials and equipment in dentistry and even more on the laboratory side, makes it crucial that there is open and consistent communication between the dentist and dental technician. Dental technicians by and large work closely with dental manufacturers on the development of new restorative materials, as well as the capital equipment that allows manufacturing of the substructure or the full restoration to meet the dentist's need for the patient. Due to this dynamic, technicians are poised to offer dentists expert guidance on material selection and help filter through the sales pitch on which brand is best to meet the patient need.

THE NUMBER OF ADA-accredited programs in the United States can now produce a graduate class of only around 300 students annually.

The advent of digital impression systems has markedly improved the restorative outcome. In study after study, the detail of the digital file has facilitated both a better restoration and turnaround time.[8] Remake percentages typically go down significantly both for the dentist and dental technician. This saves chairtime and improves patient satisfaction. As this technology becomes commonplace, the working relationship between dentists and dental technicians will allow for increased production capacity. This is opinion based on the fact that when dentists use digital impression systems the remake percentage drops by 2-3 percent. This reinforces the premise that the dentist will have less repeat patient visits for the same restoration and allow the practice to see different patients.

Regulation of Laboratories/Technicians

In a July 2008 American Dental Association survey of its members on dental laboratory issues, more than one-third of dentists believe that dental technicians and laboratories are regulated or licensed. In fact, there are no states in the United States where technicians are required to be licensed.[9]

Only three states mandate any baseline technical competency for technicians. Those states are Florida, South Carolina, and Texas. In these states, the baseline competency or continuing education requirements for dental technicians are based on the certified dental technician (CDT) designation administered by the National Board for Certification in Dental Laboratory Technology. This is the only recognized certifying body for dental technicians by the ADA.

This lack of state regulatory requirements has facilitated the closure of dental laboratory technology schools due to the lack of a mandated minimum competency to operate as a dental technician.

There is a move afoot in more than 12 states to seek similar regulations in state dental practice acts. It is believed that a baseline requirement for registration of laboratories and a tie to certification or competency standards for technicians is imperative for dentists. This will preserve a consistent foundation of technical training regardless of what laboratory the dentist chooses.

Dentists can and should seek to work with dental laboratories and technicians who have voluntarily chosen to verify their skills and knowledge against a national standard as a CDT or have verified their facility operating standards as a certified dental laboratory or FDA compliant, DAMAS, or ISO laboratory.

Technology Advances

The advent and development of CAD/CAM products from companies like Sirona, 3M ESPE, Cadent, KaVo, Nobel Biocare, D4D, and others that support digital technologies for both the doctor's office and dental laboratory will help dentistry meet increasing consumer demands. These advances will also change how doctors and dental technicians communicate with each other.

With any technology, there is a length of time before the "masses" fully utilize what becomes available. With that in mind, it will likely be another five to seven years before this new technology realizes its full potential in relation to the number of possible users. It is the author's opinion that once that happens, the general dentist and the everyday dental technician will be in a new era of dental care. Much like the medical field, dentistry, and those within it, will be fully transformed into a high-tech health care profession.

The National Association of Dental Laboratories believes that to preserve the ability of dentists to work with a qualified domestic laboratory industry that several public policy recommendations should be considered:[10]

1. Support a minimum level of competency for practicing dental technicians. This can be achieved through state dental practice acts that would require "each dental laboratory in the United States to employ at least one certified dental technician" or require comparable continuing education.

2. Require U.S. dentists and dental schools that outsource their dental laboratory work directly to foreign dental laboratories to comply with the same Food and Drug Administration quality system/good manufacturing practice requirements with which a U.S. dental laboratory must comply. This not only ensures transparency but more importantly provides that all links in the supply chain are covered in case of raw material product recalls.

3. Support state dental practice act provisions that the dental patient has the right to know where his or her restoration was manufactured and also have access to a list of patient contact materials used in their restoration. Such information would become a part of a patient's record.

For more information on the laboratory industry and seeking out a qualified partner, the author recommends the following websites: nadl.org; nbccert.org; and dentallabfoundation.org. ■■■■

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Mucogingival Surgery: Where We Stand Today

VIVEK K. BAINS, MDS; VIVEK GUPTA, MDS; G.P. SINGH, MDS; AND RHYTHM BAINS, MDS

ABSTRACT Mucogingival problems are developmental and acquired aberrations in the morphology, position, and/or the amount of gingiva surrounding teeth. According to an academic report by American Academy of Periodontology, mucogingival therapy should be advocated for gingival augmentation and to create adequate vestibular depth in areas with insufficient attached gingiva. This paper provides an overview on mucogingival surgical procedures from its inception to the current time.

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Mucogingival problems include an array of clinical findings such as gingival recession, shallow vestibular depth, inadequate width of attached gingiva and aberrant frenulum.[1] The term "mucogingival surgery" introduced by Friedman includes surgical procedures designed to preserve attached gingiva, to correct aberrant frena or muscle attachments, and to increase the depth of vestibule. The term now is replaced by "mucogingival therapy," which is a broader term that includes both nonsurgical and periodontal plastic surgical procedures for correction of defects in morphology, position, and/or the amount of soft tissue and underlying bone support for teeth and implants.[2-6]

Method

The dental literature was searched with Medline/PubMed/Google search for the years 1966 to 2009 with an emphasis on peer-reviewed dental journals. MeSH terms used were "mucogingival therapy," "mucogingival surgery," "attached gingiva," "shallow vestibule," and "aberrant frenum attachment." Common textbooks on periodontology and periodontal plastic surgery, bibliographies of papers, and review articles together with relevant journals were scrutinized for additional information.

Morphology of Mucogingival Problems

Mucogingival problems are developmental and acquired aberrations in the morphology, position, and /or the amount of gingiva surrounding teeth, and identified as early as 1924 when Kazanjian introduced techniques to deepen vestibule in edentulous patients.[7,8] Gottlieb, Hirschfeld, and Gottsegen showed the frenum, a sickle-shaped fold normally found in the maxillary and mandibular alveolar mucosa, in the canine premolar area, and between the central incisors, as an etiologic factor for poor oral hygiene, food impaction, recession, and pocket formation if present aberrantly.[9-13]

Placek et al. described a morphologic-functional classification of labial frenum attachment as: mucosal, gingival, papil-

lary, and a papilla-penetrating attachment.[14] An aberrant or high frenum is a problem of inadequate attached gingiva and a mandibular frenum is of no clinical significance if an adequate zone of attached gingiva is present coronal to frenum.[14-16] But a maxillary frenum may present esthetic problems or compromised orthodontic results.[16]

Orban was the first to define attached gingiva as stippled and firmly attached to the tooth and underlying bone.[17] Later on, Bowers, Ainamo and Loe, Lang and Loe, Rose and App, and Maynard and Ochsenbein defined, studied, and discussed variations among attached gingiva in health and disease.[18-22] For clinical purposes, an attached gingiva is defined as gingiva that extends from the free margin of the gingiva to the mucogingival line, minus the pocket or sulcus depth measured with a thin probe in the absence of inflammation.[16,23,24] It should have minimum width to prevent marginal retraction during facial movements, support the gingival fibers, and restorations.[15,24-28] Adequate or inadequate attached gingiva in an individual, is a clinical decision, not mathematical but can be detected by tension test.[24,25] For an errorless detection of a mucogingival junction, a probe is placed horizontally, flat against the mucosal surface, and slid coronally, resulting in blanching of the gingiva when the mucogingival junction is reached.[15]

As the alveolar mucosa has high glycogen content that gives an iodine-positive reaction, the mucogingival junction also can be visualized using Lugol's iodine solution.[29] Pure mucogingival problems are a result from a tooth's eruption in prominence at or near the mucogingival junction so that little or no attached gingiva is present over the prominence of a fully erupted tooth, whereas mucogingival osseous problems are caused by periodontitis, resulting in periodontal pockets extending beyond the mucogingival junction.[15,30] Thus, the term "pure mucogingival problem," coined in 1977 at the World Workshop in Periodontology, defines problems relating to the presence of "inadequate attached gingiva" and their treatment referred to as "pure mucogingival surgery," which may be prophylactic (to prevent recession) or therapeutic (to stop further recession or to gain attachment).[15]

Along with functional demand, oral esthetics represents an inseparable part of periodontal therapy. Gingival recession, defined as exposure of root surface due to an apical shift in the position of the gingiva, has been classified by Sullivan and Atkins as shallow-narrow, shallow-wide, deep-narrow and deep-wide, whereas by Miller into four classes (class I to class IV).[31,32] Miller further advocated achievement of complete root coverage in class I and class II recession defects however, only partial coverage is obtained in class III, and class IV cases.[32]

ADEQUATE
or inadequate attached gingiva in an individual, is a clinical decision, not mathematical but can be detected by tension test.

The thickness of periodontium can affect mucogingival problems and it was found that gingival units lacking attached gingiva were thinner in buccolingual dimension with a thinner keratin layer covering the oral epithelium.[33] Furthermore, periodontium thickness may have different possibilities. Type 1 consists of normal or an ideal dimension of keratinized tissue and a normal or ideal labiolingual width of alveolar process. Clinically, the width of keratinized tissue is 3-5 mm, and palpation reveals a relatively thick periodontium. A sufficient dimension of attached gingiva that separates the "retractable" free gingival margin from the mobile alveolar mucosa. Type 2 has thinner keratinized tissue and normal labiolingual width of the alveolar process. Clinically, there is a minimal amount (less than 2 mm) of keratinized tissue over the facial aspect of the teeth. The subjacent bone, when palpated, seems reasonably thick. Type 3 has normal or ideal dimension of keratinized tissue and thin labiolingual width of the alveolar process. This is observed clinically as normal keratinized tissue width, but the bone is thin and the roots can be palpated. Type 4 has thin keratinized tissue (less than 2 mm) and thin labiolingual dimension of the underlying bone. With this tissue situation, there is potential for recession in the presence of poor plaque control and local trauma as the patient matures. The gingiva also tends to be thin labiolingually, favoring its through-and-through loss with inflammation.[33]

Cervical root defects are another common biologic indication for root coverage procedures. A shallow root defect (<1 mm), easily treated in Miller's class 1 and class 2 cases, completely covers the root surface. A moderate root defect (1-2 mm) is more difficult to treat because of the extensive amount of root reshaping that must be performed before grafting; however, excellent results can be achieved. A deep, cervical root defect (>2 mm) is the most difficult to treat as the remaining tooth is significantly weakened because of too much of the tooth structure is missing.[34]

Mucogingival Surgical Procedures

A high frenum attachment, creating a pull on marginal gingiva, is a contributing factor for recession in the presence of inflammation. A frenectomy or frenotomy is usually performed in conjunction with other periodontal treatment procedures, but occasionally are done as separate operations either conventionally using a blade and hemostat, or more recently, electrocautery or a laser. Vestibular extension operations or vestibular deepening procedures were designed mainly with the objective of extending the depth of vestibular sulcus. The earliest of the techniques used were denudation techniques, periosteal retention procedure, and an apically repositioned procedure.[35-41] In recent years, however, pedicle and free soft-tissue graft have become the most commonly used techniques in the management of insufficient gingival dimensions because of the higher predictability of the healing result.

Partial or complete removal of frenum alone, or in combination with a free gingival autograft, is usually performed to create a zone of attached gingiva through relocation of the frenum, thus producing a condition conducive to plaque control and proper toothbrushing.[25,42-45] Nabers was among the first to recognize the need for the retention of attached gingiva and advocated the repositioning of gingiva.[46,47] Ariaudo and Tyell modified his technique by introducing two vertical incisions for easy manipulation, and Friedman proposed apically repositioning the gingiva for the same result.[2,41,48,49]

Various procedures for increasing the width of attached gingiva and vestibular deepening with varying results have been described. These include (a) vestibular extension procedures using complete denudation, partial-thickness flap, mucosal stripping, or a combination of full- and partial-thickness flap; (b) Edlan-Mejchar operation; (c) fenestration procedure; (d) periosteal retention or split-flap procedure; (e) apically positioned partial- and full-thickness flap; (f) modified apically repositioned flap; (g) use of free autogenous graft techniques; and (h) acellular dermal matrix allografts.[1,2,8,30,41,46-48,50-82]

Depending on the direction of transfer, pedicle graft procedures can be classified as rotational flaps (that includes laterally sliding, double papilla, and oblique-rotated flap) and advanced flap procedures (that include a coronally positioned or semilunar coronally repositioned flap).[3,83,84] With predictable root coverage and a color blend, a lateral sliding flap or a lateral-positioned pedicle graft involving a full-thickness flap was introduced by Grupe and Warren.[85] It was later modified by Grupe, wherein he proposed not to involve the marginal gingiva.[86] Other modifications of the procedure include the use of a split-thickness flap to minimize the risk of dehiscence, a double papilla flap using the interproximal papillae, oblique (90-degree) rotational flap, and a transposition flap.[87-92] Rotational flap studies affirmed 34 percent and 74 percent root coverage, 40 to 50 percent of complete root coverage after a laterally positioned flap when combined with various forms of root surface treatment and 2.2 to 4.0 mm increase in gingival height.[82,92-95] Others reported 60-72 percent of average root coverage with a lateral positioned flap technique.[96-100] However, inadequate dimensions of gingiva lateral to recession site, a shallow vestibule, wide isolated recessions or multiple gingival recession, and high frenum attachment preclude its use.[84,100,101] It also requires an adequate thickness of at least 3 mm of gingiva in an apico-coronal direction at the donor site and a pedicle dimension of about three times wider the width of uncovered root area.[101,102] Anilkumar et al. reported the use of a laterally positioned flap with platelet-rich-fibrin membrane, a concentrated suspension of the growth factors found in platelets for root coverage on labial surfaces of the mandibular anterior teeth.[103]

PEDICLE AND FREE soft-tissue graft have become the most commonly used techniques in the management of insufficient gingival dimensions because of the higher predictability of the healing result.

A coronally positioned pedicle graft or flap is a historical technique, consists of covering denuded roots of maxillary anterior teeth by sliding pedicle flaps from an adjacent uninvolved gingiva and alveolar mucosa (**FIGURE 1**).[25] After resection of the periodontal pockets, a mucoperiosteal flap as wide as the exposed root surface and outlined by a horizontal incision across the anterior maxilla, is elevated from the bone and divided in two by a midline V-shaped incision at the frenum so that the two flaps can move onto roots and be sutured (**FIGURE 1**). However, it is found to be successfully reattached to exposed roots in experimental animals only.[25,104] A coronally positioned flap was developed with the purpose to eliminate periodontal pockets and to obtain the reattachment of gingiva to root surface previously denuded by disease, which may include partial- or full-thickness flap, as an alternative to lateral transposition pedicle graft.[17,106-112] This technique can

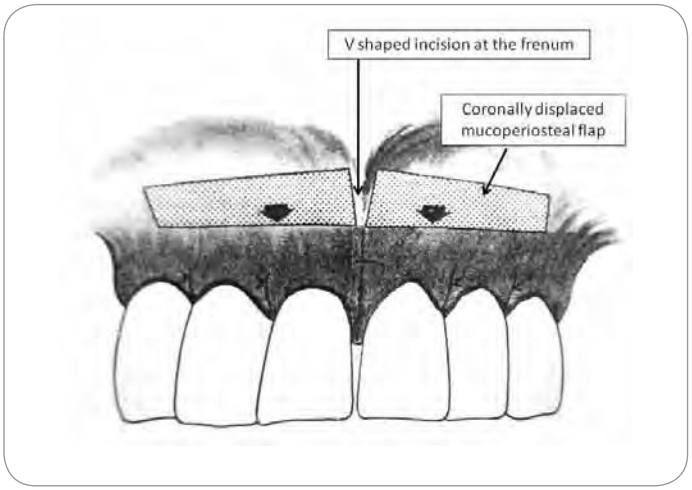

FIGURE 1. Historical technique of coronally positioned flap (Adapted from *Clinical Periodontology*, Glickman I, ed., fourth ed., W. B. Saunders Co.)

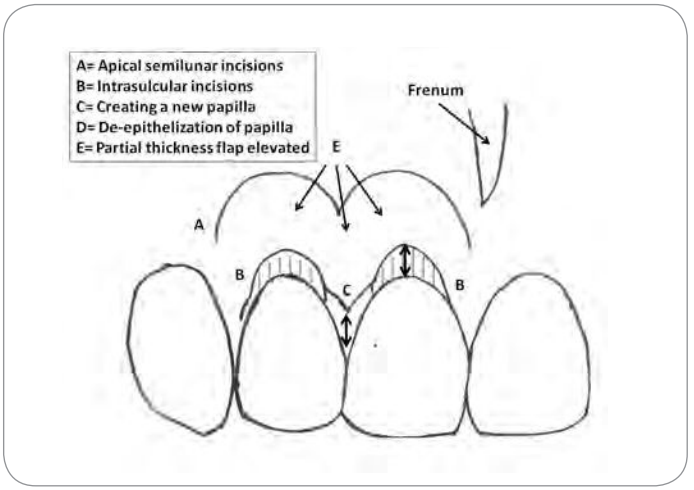

FIGURE 2. Modified semilunar flap (Adapted from Haghighat K. Modified semilunar coronally advanced flap. (*J Periodontol* 77:1274-9, 2006).

be employed to create a split-thickness flap in the area apical to the denuded root and position it coronally to cover the root either by coronal movement of the existent mucogingival complex or by the initial creation of gingival width by gingival graft, followed by a secondary procedure moving the complex coronally as a second-stage procedure.[4,107,108,110-116] A coronally positioned flap, plus a resin-modified glass ionomer restoration for the treatment of gingival recession associated with noncarious cervical lesions, revealed greater reduction in dentine sensitivity along with soft-tissue coverage.[117]

Reports suggest that on an average, 70-99 percent root coverage, complete coverage between 24 percent and 95 percent can be achieved with a coronally advanced flap procedure.[82] A semilunar coronally positioned flap described by Tarnow, originally presented in 1907 by Harlan, and include a one-stage, no-suture coronally repositioned flap aiming at correcting shallow recession defects.[113,118,119] It was further modified using citric acid root conditioning in combination.[102] Haghighat introduced modified semilunar coronally advanced flap for the correction of gingival recession present on adjacent teeth by creating a new papilla[119] (**FIGURE 2**).

Margraff in 1985 devised a double lateral bridging flap technique, which includes the combination of a coronally repositioned flap and a modified vestibulum plastic procedure, according to Edlan and Mejchar, with the goal to cover gingival recessions without increasing the zone of keratinized gingiva.[57,120] Though reports suggest 72 percent of root coverage, the literature was limited (**FIGURE 3**). The authors did find that Romanos et al. performed a five-to-eight-year longitudinal study and showed root denudation reduction of 75 percent or more.[121] Vijayalakshmi et al., while presenting case report of two cases, showed adequate gain in attached gingiva and root coverage after six months.[122]

Functional results obtained using "free gingival grafts" from epithelialized palatal tissue for the purpose of increasing the zone of attached gingiva was reported as early as 1963 by Bjorn and later on by others.[68,70-73,123-126] Several modifications of the classic technique have been proposed. These include mesh or accordion technique, strip technique, two-step technique, vertical strip technique, and one-step technique with or without root conditioning.[32,105,127-138] The mean percent root coverage with these techniques varied between 11-87 percent. Additionally, complete root coverage predictability ranged from 0 to 90 percent (average 57 percent) and a clinical attachment gain of 1.6 to 5.3 mm have also been reported.[82] Along with significant gain in gingival dimensions (both in thickness as well as in apico-coronal direction), free gingival graft can also be used over an extraction socket or osseous graft.[139,140]

Shallow vestibule and multiple recessions do not pose any problem for the result outcome, but a shallow palatal vault, rough texture of the graft, discrepancy in color of the tissues after healing, and donor site morbidity is important consideration.[16,125,129,141] Also, the classical free gingival grafting procedure cannot offer a solution for root coverage of an area larger than three teeth.[129]

Langer and Calanga described a subepithelial connective tissue graft technique to correct ridge concavities.[142] Langer and Langer were the first to report subepithelial connective tissue graft technique for root coverage of isolated or multiple recessions.[143] The graft is harvested from the palate or retromolar pad area by the use of a "trap door" approach.[3] This technique has the advantage of closer color blend of the graft with the adjacent tissue, avoidance of the keloid healing, and less postoperative discomfort at the donor site.[144-146] Additionally, this proce-

FIGURE 3: Clinical photographs showing bridge flap technique: (A) preoperative; (B) intraoperative; and (C) postoperative *(Courtesy: Dr. V. Gupta)*

dure provides dual vascularization from both, the periosteum and the buccal flap, along with the genetic messages in the connective tissue for the keratinization of the overlying epithelium.[147,148] Its versatile use in restoring lost papillae, ridge augmentation, eliminating amalgam tattoo, or as an alternative surgical approach for epulis removal while preserving and improving mucogingival complex are the added advantages of the procedure.[144,149]

Procedures that may or may not include the use of vertical releasing incisions (envelop technique), multienvelope recipient bed (pouch and tunnel) preparation or supraperiosteal envelope, subpedicle connective tissue graft technique, where a free connective tissue graft was placed under a double papilla flap and other variations, have been reported.[4,143,150-158] Highly predictable and superior esthetics, with a mean root coverage of 89 percent and complete root coverage of 20-80 percent as reported by Wennstrom, 84 percent mean root coverage by Allen, mean root coverage of 77.9 percent and 37.4 percent complete root coverage by Oates et al., and 93.8 percent mean coverage with complete root coverage in 79 percent of cases by McGurie and Nunn, provided by this technique made it the gold standard for root coverage.[82,145,154,159,160-162] Recent investigations have shown that leaving a portion of the connective tissue graft exposed resulted in a greater increase of keratinized tissue, and complete coverage of graft resulted in greater root coverage.[162] Also, histometric evaluation of the healing process of gingival recessions suggest that the combination of platelet-rich plasma with subepithelial connective tissue graft is more effective in promoting new cementum formation than the graft alone.[163]

Guided-tissue regeneration technique for root coverage was reported by Pini-Prato in 1992 using nonresorbable microporous membrane.[164,165] Later, Tinti and Vincenzi used titanium-reinforced membranes to create space beneath the membrane, and used the potential of GTR technique to achieve periodontal regeneration rather than connective tissue repair to the exposed root surface.[166,167] Studies using nonresorbable guided-tissue membrane, expanded polytetrafluoroethylene ePTFE (Gore) alone or in combination with root conditioning have been reported with varying results.[168] Placing free gingival grafts at the time of membrane removal, using titanium-reinforced ePTFE membrane for space maintenance, inserting fibrin-fibronectin between membrane and root surface alone or with root conditioning, using metal pins and miniscrews to provide space and membrane stability are suggested modifications of GTR technique.[168-175]

Similarly, studies of resorbable membranes for root coverage using a variety of materials such as collagen (BioMend or Proguide), polylactic acid (PLA, Guidor) with or without root conditioning either using an envelope, advanced or double papilla flap technique, polyglactin 910 (Vicryl) with collagen-hydroxyapatite biomaterials for wound closure have been reported.[174,176-181] Root coverage among the studies using nonresorbable membranes averaged 3.5 ±0.7 mm, clinical attachment gain averaged 4.0±0.9 mm, whereas a bioresorbable membrane showed 2.8±1.2 mm root coverage with average clinical attachment gain of about 2.5±1.3 mm.[182]

Clinical results suggest the GTR technique to be better when recession is greater than 4.98 mm apico-coronally when compared with coronally positioned flap.[4] However, GTR does not appear to offer a significant advantage over mucogingival procedures such as the connective tissue graft or the advanced flap procedure. [182]

Although few case reports suggest new connective tissue attachment associated with new cementum formation and of bone growth, and impede apical migration of gingival epithelium, a majority of studies suggest limited regeneration of periodontal attachment when examined histologically.[4,182-184] Along with various associated difficulties including primary wound closure, secondary membrane exposure, space maintenance and unacceptable foreign body reactions, GTR does not appear to offer a significant advantage over mucogingival procedures as connective tissue graft or advanced flap techniques.[182-185]

Acellular dermal matrix allograft, a nonvital freeze-dried, cell-free, dermal matrix comprised of collagen bundles and elastic fibers in a structurally integrated

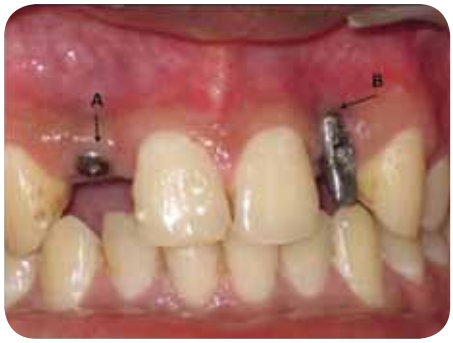

FIGURE 4. Clinical photograph showing influence of overlying mucosa around implant. A shows thick overlying mucosa around implant favoring better prognosis in comparison to B with thin overlying mucosa exposing the implant. *(Courtesy: Dr. V.K. Bains)*

basement membrane complex and extracellular matrix and originally intended to cover burn wounds, has been introduced as a less invasive alternative to soft-tissue grafting.[186-189] For clinical dentistry purposes, the acellular dermal matrix graft (ADMG) is obtained from human skin and used as a substitute for the connective donor tissue to increase the width of keratinized tissue around teeth or implants, the treatment of alveolar ridge deformities, root coverage procedures, increasing gingival thickness, eliminating gingival melanin pigmentation as a membrane for guided-bone/tissue regeneration, it also eliminates the disadvantages of the autogenous donor graft.[186,190-203] This material acts as a scaffold for the proliferation of epithelial cells, fibroblasts, and blood vessels from the recipient site to achieve reorganization, and requires a larger blood supply (full coverage from flap), as compared to a subepithelial connective tissue graft.[192,196]

Andrade et al. compared two surgical techniques (with or without vertical-releasing incision) using ADMG and found an increased width of keratinized tissue, favoring the group with releasing incision, but equally effective root coverage for both the techniques.[204] Mahajan et al. reported alloderm to be significantly superior in the treatment of gingival recession than a coronally positioned flap (CPF) alone, however, in terms of cost effectiveness and patient comfort, it was found inferior to CPF.[205]

Discussion and Concluding Remarks

Various procedures have been described to treat different mucogingival problems. According to an academic report by the American Academy of Periodontology, mucogingival therapy should be advocated for gingival augmentation, and to create adequate vestibular depth in areas with insufficient attached gingiva.[206] An increased width of gingiva independent of the number of millimeter is considered a successful outcome of augmentation procedures. Also, an increased thickness of the marginal tissue may, in certain situations, be considered as an endpoint of success. A reduction in the amount of exposed root and a reduction in root sensitivity, if attained, suffice well for any attempted root coverage procedure.

Elimination of aberrant frenum that will increase the patient comfort in maintaining good oral hygiene by helping proper placement of toothbrush will mean success for the surgical procedure done. There is an immense scope still left in the field of mucogingival surgery. Esthetic is an important endpoint determinant especially from patient's point of view. The evaluation of variables determining improvements in esthetics should be included in future clinical studies. There also needs to be the development of procedures to improve root coverage possibilities in class 3 and class 4 recessions.

As of now, implantology is increasingly becoming an inseparable part of a routine clinical practice. The presence of thick masticatory mucosa around implants is an important area of concern for clinicians to obtain its long-term success and adequate implant-maintenance (**FIGURE 4**). Alloplastic materials have come onto the scene and have shown promising results. Alloderm for root coverage has gained enthusiastic response worldwide but its cost effectiveness has precluded its routine clinical usage. The introduction of tissue-engineering and platelet-rich fibrin have been recent advancements with good acceptability and demands further long-term clinical trials. ■■■■

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Timothy G. Giroux
DDS/Broker

ASK THE BROKER

Question:

I'm thinking about selling my practice and am concerned about keeping it confidential from my staff, patients & local dentists. How do I do that?

We take great pride in protecting your privacy and keeping your sale confidential. We have all interested buyers sign a detailed Confidentiality Agreement before releasing any pertinent information. Every email from our office containing pertinent information has a bold warning that restates the importance of confidentiality and warns the recipient about contacting the doctor, office or sharing any information with anyone. Our office staff is very diligent in stressing how the process works. The brokers also reiterate not only the confidentiality process but also the expectations and conduct of the buyer in their exploration and research of the practice.

Fortunately, it is very rare that the "cat gets out of the bag". Sometimes a seller's office will receive a notice from a PPO company stating that a new doctor will be practicing at that location! In those instances, the Seller was close to announcing to the staff anyway. We still prefer to do that on our own terms. There are times when a buyer just ignores our admonition and calls the office or stops in to ask questions. We generally remove those buyers from our Data Base of active prospects after a thorough reprimand. Fortunately, most buyers are professional and it does not happen often.

I am often surprised how many sellers try to sell their practices on their own by revealing it to their dental supply representative or dental lab personnel. This is the surest way to announce to the entire dental community in the area that the practice is on the market. Most of the dental supply reps and lab personnel have stronger relationships with the dental staff than they do with the dentists. Once the word is out in the dental staff community, who knows how many more staff or patients may find out about the potential office sale.

There are some occasions when the selling doctor wishes to inform his staff about his plans early on in the process. Depending on the relationship with the staff, this can sometimes make the broker's job easier.

Maintaining good relationships with your staff is crucial. Once the staff suspects the doctor is selling, generally it is best to inform the staff about the decision rather than denying the inevitable. An experienced broker can help the doctor decide the best course of action based on the doctor's individual needs.

Timothy G. Giroux, DDS is currently the Owner & Broker at **Western Practice Sales (westernpracticesales.com)** and a member of the nationally recognized dental organization, ADS Transitions. You may contact ***Dr Giroux at*: wps@succeed.net or 800.641.4179**

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HEMET GP **-** Practice established in1988. Fee for service office located in single story strip mall w/ 4 computerized ops. ID #4037-1
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MURRIETA - State of the art office consist of 6 spacious eq. ops. and is located in a prestigious stand alone building. Turnkey. ID #4002.
MURRIETA - Price Reduced! Leasehold & Equip w/ some charts. Well design office with 4 fully eq. ops., 1,350 sq. ft office. ID #3221.

SANTA BARBARA & KERN COUNTY

BAKERSFIELD - State of the art office. Fee for service. Grossed approx. $1.9M for 2010. NET OF $405K. Gorgeous office. ID #4017.
FRESNO - Central Valley" GP - Well designed office located in a single story building with over 20 years of goodwill. ID #4023.
SANTA MARIA GP - Established over 13 years this practice is located in a Medical plaza. 4 eq. ops, with Eagle Soft software. ID #4007.

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B-9791 OAKLAND Historic building in heart of downtown w/in blocks of the financial, commercial district. 2,050 sf w/ 4 fully equipped ops **$275k**

C-8901 SANTA ROSA– Residential area. 40+ new pats/mo. Highly Visible! 1291sf & 3 + 1 op. **$475k**

C-976 PETALUMA—Prestigious area! ~ 10 patients per Office is ~ 800 sf w/2 ops **$350k**

C-971 NAPA VALLEY - Large, loyal patient base. 15-20 pats/day. Located in the heart of town. 1,200 sf w/ 4 ops **$470k Building available for Sale Also!**

D-877 LOS ALTOS -Pristine Professional plaza. Office is ~ 2,400sf - 6 ops **2009 Collections - $819k!! Reduced to $350k to offset rent amount**

D-9091 ATHERTON -Turnkey operation 969 sf & 3 ops ***Call for Details!***

D-925 SANTA CLARA - Retail Center in the heart of the Silicon Valley. 1,500 sf & 3 ops **$499k**

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D-965 WATSONVILLE - Location and a large stable patient base! Office ~ 2,393sf, w/ 4 equipped ops + plumbed for 4 add'l ops. **$420k**

D-967 SAN JOSE – FACILITY—Like new, beautiful scratch-start office. ~1,600+ sf w/ 4 ops **$150k**

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G-751 WILLOWS- Complete remodel ~5 yrs ago. FFS GP. 2350sf /4 ops. Plumbed for 2 add'l. **Practice $50k / Real Estate $185k**

G-875 YUBA CITY–Estab. 30 + years, GP, FFS, 3575sf /9 ops, great location. **$1.63m w/Cerec ~ Assoc Buy-In Op!**

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SOUTHERN CALIFORNIA

K-887 ESCONDIDO-Beautifully landscaped dental prof bldg 1,705 sf w/5 ops **$175k**

CENTRAL VALLEY

I-889 MERCED- Heart of town, bustling with activity & foot traffic. 3 ops **REDUCED! $220k**

I-923 MODESTO—1495sf/ 4op+1, Newer, All digital. **$250k**

I-945 TRACY - Young, growing, highly motivated patient base. 1,300 sf & 4 ops **$350k**

CENTRAL VALLEY CONTINUED

I-966 MODESTO - Facility The practice newly renovated, w/ professional décor and floor plan. Sparkling, immaculate Office ~ 700sf w/2 ops, **$89k**

I-9721 STOCKTON -Working on relaxed schedule, Doctor averages 5 pats/day. Dental Professional building complex on major thoroughfare. 1,450 sf w/3 ops. **$75k.** Partial Bldg Buy-out available also

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- **APTOS:** *For Sale*-General Dentistry Practice. Highly desirable location. 2008 Gross Receipts over $1Mil. w/adjusted overhead at 51%. 3-operatories in 1,000 sq ft. Pano & Modi computerized software. 9-hygiene days per week. Practice operated for past 33 years in same location. Open 5 days a week. Owner willing to work back for new owner 2 days/wk. SOLD

- **BARSTOW:** *For Sale*-General Dentistry Practice. Gross Receipts $395K with an adjusted net income of $193K. Office consists of 1,100 sq. ft. 4 operatories. Intra-Oral Camera, Dentisoft. There are 3-hygiene days per week. Practice has been in its present location for the past 25 1/2 years. SALE PENDING

- **BIG BEAR CITY:** *For Sale*-General Dentistry Practice. 26 years at current location. Gross Receipts $428K. 3-equipped operatories. Doctor owns the building. New lease available or option to purchase. #14345

- **CORONADO:** *For Sale*-General Dentistry Practice. Gross Receipts in 2010 $405K. Office space 1,400 sq. ft., 4 operatories, Laser, Intra-Oral Camera. 1,000 active patients. 2 hygiene days a week. Practice has operated in its present location for 40+ years. Owner retiring.

- **EL DORADO HILLS:** *For Sale*-General Dentistry Practice. 2009 GR $790,758, adjusted net income of $312K. Intra-oral camera, pano, Softdent software, 4-equipped ops. 6-hygiene days. Practice has been in its present location for past 18 years. Owner retiring. SOLD

- **EL DORADO HILLS:** *For Sale*-General dentistry practice. Gross Receipts of $834K with adj net of $389K, 53% overhead. Office has five equipped operatories in 1485 sq.ft. Pano, Intra-oral Camera, Dentrix, 5 days of hygiene. Owner retiring.

- **FOLSOM:** *For Sale*-General Dentistry Practice. Gross Receipts in 2010 were $703K with an adjusted net income of $300K. 5 days of hygiene and approx1500 active patients. Leased Office is 2,000 sq ft with 4 equipped operatories-5 possible. Patient Base software. Owner to retire. SOLD

- **FOLSOM:** *For Sale*-General Dentistry Practice 2009 Collections $513K. Adjusted net income $184K. 4 ops (plumbed for 5), Intra-oral camera, fiber optics in all ops. Patient base software. Owner retiring. SOLD

- **FOLSOM:** *For Sale*-General Dentistry Practice. Gross Receipts in excess of 1.5M the past three years. Adjusted Net of $550K. 2,700 sq. ft. office with 7 ops, Digital, Dentrix, Intra-Oral Camera, Laser, 5+year old equipment, 8 days hygiene. Beautiful office, great location. Owner retiring. #14336

- **FRESNO:** *For Sale*-General Dentistry IV Sedation Practice. (MERGER OPPORTUNITY) Owner would like to merge his practice into another high quality general dentistry or IV sedation practice. The merger would be into Buyers office. Seller would like to continue to work as either a partner or associate after the merger. 2010 collections were $993K with a $422K adjusted net income. There are 7 days of hygiene. #14250.

- **GRASS VALLEY:** *For Sale*-General Dentistry Practice. 2009 GR of $307,590 (3 days/wk) with adjusted net income of $105K. 3 Ops. refers out most/all Ortho. Perio, Endo, Surgery. Intra-Oral Camera, Diagnodent, EZ Dental Software. Good Location. Owner retiring. #14337.

- **GRASS VALLEY:** *For Sale*-General Dentistry Practice. Owner retiring. Gross Receipts $89K. Practice has been in the same location for the past 33 years. 2 equipped operatories, 3-4 available. Panoramic X-ray. Doctor owns building, which is available for purchase. This practice can also be combined with another Grass Valley practice also listed for sale. #14362.

- **GREATER CHICO:** *For Sale*-General Dentistry Practice. Gross receipts in 2010 were $584K, with an adjusted net income of $152K. Approx 1,100 active patients. 4 operatories, Pano, Intra-Oral Camera. Easy dental software. Leased office 1,200 sq. ft. Owner is retiring. #14359.

- **GREATER FAIR OAKS-SUNRISE AREA:** *For Sale*-Gross Receipts in excess of $1.1 Million dollars for the past three years. Adjusted net $450K. 2,400 sq ft office-5 ops. Hygiene days-6, Owner works 32 hours per week. Eagle Soft, Laser, Pano Intra-Oral Camera, fiber optics. Owner retiring. #14343

- **GREATER SACRAMENTO:** *For Sale*-Pediatric Practice. 2010 GR of $1,095,914, with a 45% overhead. Prevention oriented practice with 2000 sq. ft. Digital office with Dentrix. Equipment is nine years old. Delta Premier is only insurance. Owner retiring. SOLD

- **GREATER SAN JOSE AREA:** *For Sale*-General Endodontic Practice. 2009 collections were $1,187MIL with an adjusted net income of $696K. There are 4 ops in this nicely decoreated 1,400 sq ft office space. 4 microscopes. Owner has been in same location for 26 years with long-term employees. Owner is retiring but will continue to work 1 ½ to 2 years through the transition with the buyer. SOLD

- **HAWAII (MAUI):** *For Sale*-General dentistry practice. Gross Receipts of $636K. Office has four equipped operatories in 1198 sq.ft. Pano, Laser, I.O. Camera, Fiber Optics, 2 ½ days of hygiene. Owner retiring: Don't miss this opportunity to live and work in paradise.

- **IRVINE & COSTA MESA:** *For Sale*-General Dentistry practice combined. Gross receipts combined $781K with adjusted net of $396K. Both office spaces are leased with 4-5 ops in each. Both are 1,600 sq. ft. Irvine is equipped with Intra-Oral Camera, Pano & Dentrix. Costa Mesa is equipped with Laser, Intra-Oral Camera, Pano and Dentrix. #14355.

- **LAGUNA NIGUEL:** *For Sale*-General Dentistry Practice. 2010 gross receipts were $503k. 4 operatories, Pan, computerized with EZ dental software. 1,500 sq. ft. lease. 10 years in present location. Owner retiring. #14352

- **LAKE COUNTY:** *For Sale*-General Dentistry Practice. Gross Receipts 904K with adjusted net $302K. Practice has been in same location for past 23 yrs, and 25 yrs in previous location. 2,600 sq ft with 8 equipped treatment rooms. Intral-Oral Camera, Pano, and Data Con software. Owner to retire. #14338

- **LINDSAY:** *For Sale*-General Dentistry Practice & building. Gross Receipts in 2010 $330K with adjusted net income of $219K. Owner has operated in present location for 27 years. Office space 1,489 sq. ft., 3 operatories available (2 equipped), Intra-Oral Camera, Soft-Dent software. 3-hygiene days a week. Owner retiring. #14363.

- **LIVERMORE:** *For Sale*-General Dentistry Practice. 2009 Collections were $688K with an adjusted net income of $287K. There are 4 ops in this nicely updated 1,082 sq. ft. office space. Dentrix software, 6-days/wk hygiene. Owner has been in same location for 36 years with long-term employees. Owner is retiring. #14326 SOLD

- **LOS ANGELES:** *For Sale*-General Dentistry Practice.1,200 sq ft 4ops, 29 yrs in present location. Gross Receipts $274K with adjusted net income of $89K. Owner to retire. #14348

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- **MODESTO:** *For Sale*-General Dentistry Practice. 5 operatories, 32-years in practice. Gross Receipts $884K w/adjusted net income of $346. Dentrix, Cerec, and Intra-Oral Camera. Owner to retire. #14308 SOLD
- **NAPA:** *For Sale*-General Dentistry Practice. Gross Receipts $800K, with adjusted net income of $250K. Fee for Service. 1300 sq ft 4 ops 6 hygiene days. 38 yrs in present location, 30 yrs in previous location. Owner to retire. SOLD
- **NEWPORT BEACH:** *For Sale*-General Dentistry Practice. Practice has operated at its present location since 1986. Located in a highly affluent Newport Beach community. Three (3) hygiene days per week. Leased office space with 4 ops. in 1,450 sq. ft. Pano & Practice Works software. #14354.
- **NORTHERN FRESNO:** *For Sale*-General Dentistry Practice. This is a perfect starter or satellite practice. Excellent location in North Fresno. Gross Receipts in 2010 were $173K. Approximately 450 active patients. 3 operatories. Dentrix software. Leased office 1,200 sq. ft. Owner has been accepted to an Endodontic Residency after starting practice 1 1/2 years ago. SOLD
- **NORTHERN CALIFORNIA:** *For Sale*-For Sale- Pediatric practice. Owner has operated in same location for 32 years. Approx 1,760 active pts, 1,100 sq ft, panoramic X-Ray, Dexis Digital and Dentrix software in this 5–chair office. 2009 Gross Receipts $713K with 48% overhead. Owner retiring. Call for Details. SOLD
- **OCEANSIDE:** *For Sale*-Modern looking office. 4 op, office space and equipment only. Belmont chairs. Gendex x-ray system, intraoral camera, approx 1,200 sq ft. Low overhead-Rent is $1,900/month, and it's a 5 year lease. Staff is available for rehire-front desk $15/hr, assistant 13/hr. Update all the computer systems after purchasing the office in 07. Computers and monitors in every room. #14346 SOLD
- **PLEASANTON:** *For Sale*-General Dentistry Practice. Owner has other practice in Bay Area only in Pleasanton 1 day/wk. 300 active patients. Excellent location-beautiful 1600 sq.ft. 5-op office. Equipment like new, intra-oral camera, pano, Easy Dental software. Must See. #14364.
- **PLUMAS COUNTY:** *For Sale*-3 equipped ops. Space available for 4th op. 1,245 sf office in good location. Gross Receipts $475K. Practice in present location over 50 years. Owner is retiring. #14318
- **REDDING:** *For Sale*-Owner looking for Assoc. trans. into Partnership w/Buy-Out. GR $1 Million dollars income $436K. 5.5 days hygiene, 2,200 sq. ft. #14293
- **RENO:** *For Sale*-General Dentistry Practice and Dental Building: 2009 Gross Receipts $517K with adjusted net income of $165K. 4 ½ hygiene days/week. 1, 800 sq. ft. with 6 equipped ops. (7 Avail). Dentrix software, Pano. Practice has been in its present location for 40 years. Owner retiring. SOLD
- **ROCKLIN:** *For Sale*-General Dentistry Practice. Gross Receipts $593K in 2010 with $240K adjusted net income. Office is 1,630 sq. ft., with 4 operatories equipped with fiber optics. Owner has been in present location for the past 13 years. 3 1/2 days hygiene. Intra-Oral Camera, Dentrix software. Owner to retire. SOLD
- **ROSEVILLE:** *For Sale*-General Dentistry Practice. Great Location. 2009 GR $900K with adjusted net income of $300K. 1,975 sq. ft. with 4 ops, 8 days hygiene/wk. Digital, Intra-Oral Camera, Dentrix, Trojan, fiber optics, P & C chairs - all less than 5 years old. Owner is retiring. #14327 SOLD
- **SACRAMENTO/ROSEVILLE:** *For Sale*-One of many partners is retiring in this highly successful General Dentistry Group Practice. Intra-Oral Camera, Digital Pano-Dexis, electronic charts, owner Financing. Call for further information. #14334
- **SAN DIEGO:** For Sale-General Dentistry practice. Gross Receipts $414K. Practice has been operated by the same owner for the past 6 years. Leased 950 sq. ft. office with 3 equipped operatories. Dentix software, Intra-Oral camera, Panoramic X-Ray. Owner to relocate. #14356.
- **SAN DIEGO:** *For Sale*-General Dentistry Practice. 6 ops, Intra-Oral camera, Eagle Soft Software. Office square feet 2,300 with 3 years remaining on lease. 2009 Gross Receipts $1,448,520, with an adjusted net income of $545K. Doctor would like to phase out then retire. #14331
- **SANTA BARBARA:** *For Sale*-General Dentistry Practice. This excellent practice's 2009 gross Receipts $891K with steady increase every year. Practice has 6 days of hygiene. 1,690 sq. ft., 5 ops, Laser, Intra-Oral Camera, Schick Digital X-Ray, Datacon software. Doctor has been practice in same location for the past eleven years of his 31 years in Santa Barbara. Doctor is retiring. #14333 SOLD
- **SAN LUIS OBISPO:** *For Sale*-Two Doctor General Dentistry Practice. Gross receipts $1,537,142 for 2010 with an adjusted net income of $691K. The office has 2,331 sq. ft. with 8 equipped operatories. Pano, E4D, and Dentrix software. Practice started in 1990 and has been in its present location since 1998. Approx. 3000 active patients. Great location with nice views. #14353.
- **SANTA CRUZ:** *For Sale*-General Dentistry practice. Gross Receipts $300K with a 57% overhead. Office is 1,140 sq. ft. 3 equipped operatories. Intra-Oral Camera, Pano, Digital X-Rays, and Dentrix software. Practice has been in its present location since 1980. Owner retiring. SOLD
- **SANTA CRUZ:** *For Sale*-General Dentistry practice. This excellent practice is centrally located in a professional complex. Office is approx. 1,885 sq. ft., 4 operatories with room for one additional. There are approx. 2000 active patients with 6 days of hygiene per week. Practice Pano, Intra-Oral Camera and Easy Dental software. Owner is retiring. Reasonable lease available. #14361
- **TORRANCE:** *For Sale*-General Dentistry Practice: Owner has operated in same location for 20 years. Approx. 1,000 active patients, 1,080 sq. ft., Brica System, and Camsight software in this 2 equipped, 3 available-chair office. Gross Receipts $434K with 38% overhead. Owner relocating. #14320 SOLD
- **TRACY:** For Sale-Equipment, furnishings, and leaseholds only. In the Central Valley. Fully equipped, including 4 Belmont Accutrac chairs, 2 Midmark Matrx, 6 DCI rear delivery units, 3 Gendex x-ray units, 1 Soridexdigital x-ray processor, 1 Statim 5000, 1 Harvey autoclave. 2,800 Sq ft, 6 Ops. New lease available from landlord. SALE PENDING
- **VISALIA:** For Sale- General Dentistry Practice. Gross Receipts $616K with an adjusted net income of $ 321K. Office is 1,380 sq ft with 3 equipped operatories, Intra-Oral Camera, Digital X-Rays, Mogo software, equipment & leaseholds look new. 5 years in present location. Owner to relocate. #14347 SOLD

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PROFESSIONAL PRACTICE TRANSITIONS

CLASSIFIEDS, CONTINUED FROM 586

OFFICES FOR SALE

MODERN FOUR OPERATORY DENTAL BUILDING IN DUNSMUIR FOR SALE OR LEASE — A beautiful mountain setting in Northern California with hunting, fishing and skiing. Building well maintained. Seller motivated, all terms negotiable. Seller would consider forgiving lease/sale payments for first year to help practitioner establish a practice. Present dentist moving out in order to reduce commute driving time. Contact seller at mollyruss@sbcglobal.net or Doris Moss Realty, Brett Waite, Broker, 530-926-3807 or brett@mtshastarealty.com.

OPPORTUNITIES AVAILABLE

DENTAL JOBS AVAILABLE — Aspen offers tremendous earning potential and a practice support model that empowers dentists. We eliminate obstacles for dentists to own their own practice. Call 866-745-5155 or visit aspendentaljobs.com. EOE

OPPORTUNITY AVAILABLE — A great place for a family to live? A practice with a great income and a future? Family, friends and a community? This is the place. Join our team and be "working together to be better." Try Missouri, you'll like it. Contact Sheila at 573-201-9298.

OPPORTUNITY AVAILABLE — Dentist with experience for busy Lawndale clinic. Mail to inquiries Attn: HR, Bay Dental Center, Lawndale, CA 90260 (Job# PS711).

OPPORTUNITY AVAILABLE IN ALBERTA CANADA — Excellent opportunity in Canada. Full-time, quality minded, detail and patient-oriented associate required for busy practice. State-of-the-art, 3-D digital, offering implants and ortho. Well established, growing practice. Paid on production. New grads welcome. Must have written Canadian NDEB. Email azhrdental@gmail.com.

CONTINUES ON 592

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3041 SOUTH BAY GP

Well est. & successful practice in gorgeous state-of-the-art facility located in a most desirable area. Modern equipment updated in 2007 and near paperless office. Equipment includes Gendex digital x-rays, Panorex, Cerec & Dexis. 1,653 sq. ft. facility w/6 fully-equipped ops. Avg. GR for past 5 years 1.6M w/59% overhead. 2010 GR as of Aug. on track for 1.5M+. Quality staff. Long term lease available. This is an outstanding opportunity for the experienced dentist looking for a high quality practice. Asking $1.3M.

3049 SAN JOSE GP

Well-located, across from O'Connor Hospital, general practice in 2,118 sq. ft.state-of-the-art facility w/ 3 fully-equipped ops. 2 pvt. offices (1 can be plumbed for 4th op.). This office is beautifully designed and is stunning. In addition to his general practice, owner treats sleep apnea patients. He is selling just the general operative portion of the practice and is willing to help for a smooth transition. Ideal for an experienced dentists looking to merge an existing practice.

3048 SAN JOSE GP

Owner retiring from a small well-est. practice with great upside potential. 900 sq. ft. office with 3 ops. near medical center. 3 Dr. days/week. Owner willing to help for a smooth transition. Asking $95K.

SOLD

3050 EAST SAN JOSE FACILITY

Exceptional opportunity for a beautiful state-of-the-art, first class facility with 8 large ops. & 2 pvt. rooms, in a well traveled area. 1 level shopping center almost fully-equipped office with high visibility signs near E. Capital Expressway and 101. If you want exposure, this is the place to be. Asking $190K.

3045 VACAVILLE GP

Turn-key, traditional dental practice with loyal staff and sense of community. Well maintained 900 sq. ft. tastefully decorated office with 2 fully-equipped ops. 2009 GR 224K+, 2010 projected GR as of Aug. $270K+ with 50% avg. overhead. Owner retiring and willing to help for a smooth transition. Asking $172K.

3006 MONTEREY COUNTY ORTHO

Est. Ortho practice in 2,668 sq. ft. office with 5 open bay chairs in a professional dental complex. Panorex and Cephlometric X-ray machines. Stable and loyal referral base. Annualized GR as of Oct 2009 are $335K+. Owner retiring and willing to help for a smooth transition. Asking 227K.

3028 NAPA-SOLANO COUNTY GP

Owner retiring from well-est. practice in 1,400 sq. ft. facility with 5 ops. All fee-for-service pts. with great word-of-mouth reputation. 2009 GR $731K+, June 2010 FY on schedule for $771K+ with just 4/doctor-days. Asking $518K.

3047 WEST SAN JOSE GP

Owner retiring from well-established practice in professional dental building with 3 ops in 950 sq. ft. office. Ideal location near O'Connor Hospital, Town & Country Village and Valley Fair Shopping Center. Avg. GR $169K+ w/60% overhead. Asking $95K.

SOLD

3037 PLACER COUNTY GP

Well est. Placer County General & Cosmetic Practice. 6 fully-equipped state-of-the-art ops., in single story 2,500 sq. ft. stand alone professional building. Avg. GR for past 4 years $1.4M+ with 61% overhead and just 4 doctor-days/week. Asking $1,134,000.

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CLASSIFIEDS, CONTINUED FROM 590

OPPORTUNITY AVAILABLE IN NORTHWESTERN WASHINGTON — Seeking experienced dentist for busy, established, rapidly growing, fee-for-service group dental practice. Excellent immediate income opportunity ($180K to $375K + per year) depending on productive ability and hours worked. Secure long-term position. You can concentrate on optimum patient treatment without practice management duties. Newly equipped, modern office with excellent staff and lab services provided. If you are bright, energetic with a desire to be productive, very personable, people oriented and have great general and specialty clinical skills, please fax resume to Otto J. Hanssen at 425-484-2110.

RELOCATION AND SIGN ON BONUS OFFERED FOR ARIZONA — Immediate need for a FT Dentist willing to relocate to Glendale Arizona. The office has a steady patient flow, FT Hygienist and excellent earning potential. Doctor must have 3-5 years experience and be proficient in molar endo. Benefits package offered including Malpractice coverage. Please contact Kristin Armenta at 714-428-1305 or fax to 714-460-8564.

SEEKING MANAGING DENTISTS — If you're looking for a long-term commitment and desire to be productive the opportunity is yours! Seeking full-time, managing dentists to join large group practice in the following areas: Los Angeles, Orange County, Inland Empire, San Diego and doctors willing to relocate to Arizona. Steady patient flow in high volume HMO environment. Required: 3-5 yrs experience and proficient in molar endo. Benefits include: medical, dental, vision, 401K, malpractice coverage and competitive pay! For available positions please call: 714-428-1305, submit your resume to kristin.armenta@smilebrands.com or fax to 714-460-8564.

CONTINUES ON 594

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If you want your practice "SOLD", contact us!

VISIT PPS AT BOOTH 1105 AT CDA IN SAN FRANCISCO

5999 **"SOLD" PLEASANTON** Adjacent to Hacienda Business Park. 2011 tracking $900,000. Strong profits. Digital radiography with computers in Ops. Great visibility.

6002 **SAN JOSE'S EVERGREEN VALLEY - FILIPINO PRACTICE** Near Highway 101 and East Capitol Expressway. Housed in new building and suite. Busy Hygiene schedule. 2011 tracking $850,000. Strong profits.

6003 **"SOLD" PINOLE - HERCULES AREA** 4-days of Hygiene. 90%+ effective Recall. Produced $740,000 and collected $709,500. Low AR balance. Endo referred.

6004 **"SOLD" SAN JOSE'S SANTA TERESA AREA** Asking slightly more than what it would cost to replicate this office today. Digital & paperless 3-Op suite. 2010 produced $385,000 with collections of $277,000 and Profits of $190,000+. Gorgeous facility. Lease allows occupancy thru 9/30/2024.

6005 **FAIRFIELD - WEST OF I-80** Seeks full-time Successor. Operating on 2.5 week schedule by Owner with other commitments. Has averaged $470,000 per year last 3-years. 2-days of Hygiene, 20 new patients/month. Attractive 3-Op suite. High visibility location.

6006 **STOCKTON** Beautiful office near intersection of West Hammer & Lower Sacramento. Busy retail location. Ideal for nearby Dentist seeking office upgrade or someone with a Business Plan. 4 Ops, digital radiography, computer charting. No goodwill.

6008 **MENDOCINO COAST - FORT BRAGG** Nestled in desirable cultural haven creates attractive lifestyle. 4-days of Hygiene. 2010 collected $695,000. Owner works 3-day week and states he could work more if desired. Computerized Ops and digital radiography.

6010 **"SOLD" BERKELEY – ALTA BATES MEDICAL VILLAGE** Attractive revenues. Last 2-years Profits have averaged $225,000. 2011 doing better!

6011 **SAN JOSE – WEST OF I-280** Long established practice off Saratoga Avenue. Has averaged $400,000 per year in collections. 3-Ops with 4th available in 1,000 sq. ft. suite.

6012 **FREMONT** Well established practice as evidenced by 6+ days of Hygiene. Fantastic Recall System. Great location. Collects just shy of $900,000 per year. Total Available Profits in 2010 were $360,000. 5-Ops.

6013 **LIVERMORE** Not yet 4-years old, tracking $430,000+ in collections 2011. Attractive 4-Op suite fully networked, employs computer charting and digital radiography.

For complete details on any of these opportunities, go to www.PPSsellsDDS.com

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This shall be the best decision you make regarding this important change in your life!

"I listed with a competitor for 12 months. Had two people visit my practice. First weekend PPS had my listing, I had 3 people visit and an offer by the end of the first week. Thank you for allowing me to move on to the next step of my life."

"It was a pleasure to work with PPS. I had to sell because of health complications. Mr. Irving listed my practice on Jan 1st, we closed escrow on Feb 27th. It took him less than 60 days to complete the sale as promised."

"When I decided to sell my ortho practice, I sought the services of a large company. Over the 12-month contract, I had one buyer visit. Word was out. It had a devastating effect on my bottom line. Fortunately, I found Ray and Edna Irving! When I finally sold, I choose between two good offers. My regret was the time and money lost with the other guys."

"When I signed the Listing on June 1st, Ray stated he would have the practice sold by Labor Day. The sale was concluded on Sept 1st, two days before Labor Day. Wow!"

"I will always remember your statement when I questioned your contract being only four months. You stated: 'If I can't sell your practice in that time, you should get someone else.' Well, you did with time to spare!"

"Before I called Ray, I had a listing with another prominent Broker. After eleven months without a sale, I called Ray. He sold it in about a month! Would I recommend Ray? Yes!"

"In April, I asked Ray Irving to sell my practice. At the same time my friend decided to sell his practice. He employed another firm. My practice sold June 22. My friend's practice still hasn't sold and he was putting his dreams on hold."

PPS of The Great West's reputation is built upon grounded ethics and effectiveness. Our trademark "client services" include accurate assessments, impeccable marketing plans, complete transparency, generating quick responses, realizing multiple Offers, securing 100%+ financing in days, expert papering of our transactions and sound counsel. Everything is done to protect our Client and to effect a successful transfer. Our intent is simply to provide the best service imaginable for this very important engagement.

CA DRE License #1422122

CLASSIFIEDS, CONTINUED FROM 592

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IN HOUSE PERIODONTIST/IMPLANT SURGEON AVAILABLE FOR YOUR PRACTICE — In the Greater San Francisco Bay Area. Implant Surgeon/ Bone Grafting/ Perio Surgery/3rd Molar Extractions. Contact bayareaperio@gmail.com or 617-869-1442.

PERIO AND IMPLANTS IN YOUR OWN OFFICE — Experienced in all phases of perio and dental implants placement. Will come to your office. Please call 818-404-5141 or 917-865-1723

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COASTAL EUREKA PRACTICE FOR SALE OR LEASE — Family practice in beautiful semi-rural area with fantastic outdoor recreation. Production/collection average 80,000/month with high net, a FFS practice with no capitation and doctor only working 14 days/month. Large loyal patient base would support two dentists. Great growth potential by adding endo, perio, and oral surgery and increasing work schedule. Priced at $625K. Building available for favorable lease or purchase. Owner considering adding associate dentist while transitioning to retirement. Call after 6pm Pacific Time 707-499-9799.

DENTAL PRACTICE FOR SALE — WHITE MOUNTAINS OF ARIZONA — Long established practice. Has weathered the economic storm of the last year near three years intact. I wish to retire. I am 68 years old. The office is 2,000 sq. ft., and has six operatories, fully plumbed and set up. I employ two dental assistants, one hygienist and two front office staff. We have a large inventory of patient records. The office has a reasonable amount of electronic data material and rather modern operatories. It is fully plumbed for nitrous oxide sedation; we use global microscope in endodontics. If interested, please contact me at mountaindental1@hotmail.com. I will respond immediately.

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5. Preparation of all documentation for stock sale, when applicable;
6. Lease negotiations;
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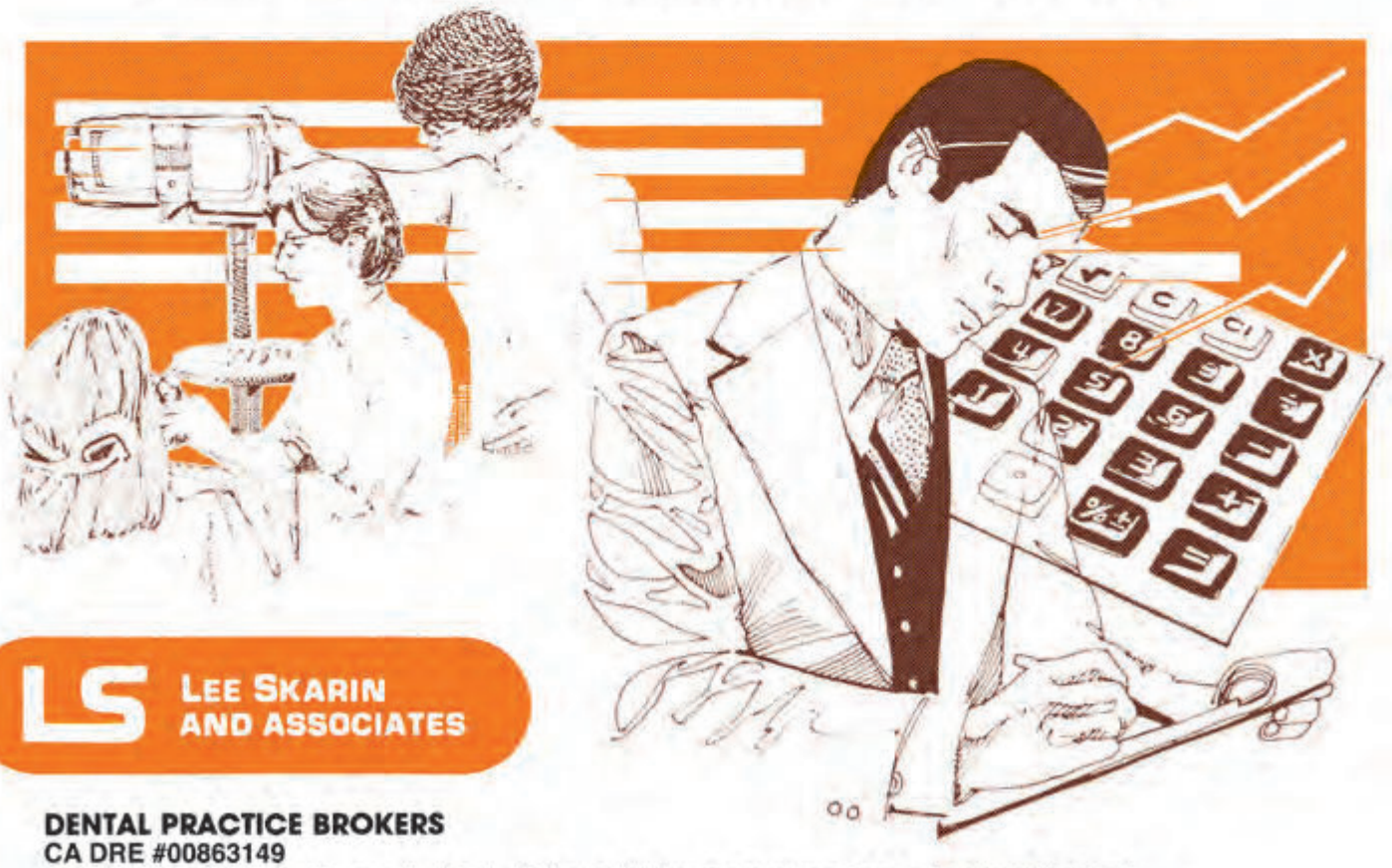
Any Questions? Call Kurt Skarin, now at **(818) 991-6552**

Lee Skarin & Associates has scores of Buyers in their computer. The Buyers' profiles in practice interest and financial ability, have been categorized to expertly select the right Buyer for your practice. Expert Buyer selection solidifies a deal, eliminating that overzealousness to sell that can cause lasting harm. Lee Skarin & Associates services all of Southern California from three strategically located offices — one is near you.



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DR. BOB, CONTINUED FROM 598

Dentists have not slept well since the last amalgam scare combined with the sterilization of handpieces to make insomniacs of us all. Here are a few potential fears you don't want to ignore:

THE RECEPTION ROOM: Have you read all the articles in the magazines in your reception room? What if one of them advocated overthrow of the new health care reforms? Or recommended some cosmetic procedure that resulted in a less than satisfactory result? Fifty million trial lawyers are poised to hold you personally responsible for providing this material to unsuspecting patients.

"Where did you get the idea for moving your ears forward and your eyebrows up?"

"From my dentist's reception room!"

"And setting fire to the Pentagon?"

"Same place."

"The people rest!"

THE BUSINESS OFFICE: Chances are your business office is an ergonomic nightmare ready to inflict everything from carpal tunnel syndrome to a dowager's hump on your employees. This is a test of employee loyalty you cannot afford to take. It would be a mistake not to allot some of your nocturnal wakefulness to this area.

THE LABORATORY: The potential for fear generated by your lab is so immense, you should definitely dismantle it immediately and move it to some remote place, preferably in the next county. The same reasoning applies to wherever you keep your central vacuum and air compressor. All these things rely on a physical principle called "centrifugal force." Once unleashed, centrifugal force is capable like Hurricane Katrina of decimating everything in a 50-mile radius. You don't want to be there.

YOUR PRIVATE OFFICE: Private? Hah! Grand Central Station is private compared to your sanctum sanctorum. Unless you've installed a door that Chase Manhattan could be proud of, your office is as private as the Million Man March.

Chances are your business office is an ergonomic nightmare ready to inflict everything from carpal tunnel syndrome to a dowager's hump on your employees.

Most of the sensitive material you harbor in your sanctuary is capable of spontaneous combustion due to laxity in federal regulations involving the corrupt paper industry. Even though you may have difficulty yourself finding anything on or about your desk, bad people whom you would least suspect will have no problem at all extracting documents that could embarrass you or cause search warrants to be issued by judges antagonistic toward dentists. There is no soporific in the PDR strong enough to counter this.

THE OPERATORY: The operatory, by definition, should be the one place where you are in charge, as much in your element as a goldfish in its bowl. Wrong! Here's where air, water, electricity, vacuum, sharp things, corrosive things, radiation and infection meet in a vortex of anxiety, apprehension and resistance. It is true that over the years we've learned to cope with most of these fears to the point where our anxiety level is no higher than you might experience if accidentally buried alive, but the malady lingers on.

THE FUTURE: The future is here, foreshadowing the death of private practice. This has been rightly classified as the Fear du Jour. Maybe it will go away. What are the odds? Will mercury fear go away? Will backflow? Will your ulcer? These concerns are expressed in *Horseman's Law of Balanced Inertia as* "For every moment of perceived tranquility, there is an equal and opposite moment of abject fear." It was on this fundamental axiom that dental societies were formed long ago. Ostensibly to further education and promote camaraderie amongst dentists, the real reason that dental societies continue to flourish is that they provide a forum to exchange mutual fears. There is nothing that allays the worries of a fellow practitioner as much as discovering he is not alone. It would be appropriate to stand before each meeting and sing a variation of that old song:

" ... For your fears are my fears,
And my fears are your fears,
The more we get together,
The more paranoid we'll be."

To further this concept, we should apply to *Mad Magazine* for permission to use Alfred E. Neuman as our mascot, diastema and all, and dump that pathetic little molar that is featured on too much of our literature. Our new motto would then be, "What, me worry?" It's worth a shot. ■■■■

CDA JOURNAL, VOL 39, Nº8

Freddy Kruger Isn't Your Worst Nightmare

Dentists have not slept well since the last amalgam scare combined with the sterilization of handpieces to make insomniacs of us all.

Robert E. Horseman, DDS

ILLUSTRATION BY DAN HUBIG

Where would one go to apply for a job as a "human behaviorist?"

This is a career opportunity my high school counselor failed to mention, otherwise I might have given it some consideration. Apparently it is a position not requiring a facemask or a lot of handwashing. I picture it more as steepled fingers, a corduroyed forehead and a black leather highback chair sort of pursuit.

In any event, human behaviorists are ubiquitous in the press, revealing without provocation that fear, guilt, greed and lust are part and parcel of the human condition. Granted, fear and guilt contribute to the smooth running of society. This is what keeps us from testing a hot iron with our tongues or shoplifting a skill saw from Sears. A lot of people get credit for being well-behaved simply because they haven't the money to be otherwise. The behaviorists should, in addition, add envy to the list considering how strongly we feel about the obscene salaries paid other people whose sole talent lies in tossing balls through hoops or hitting them with sticks.

You would think every fear — real or imagined — would have been documented by now and the antidotes disseminated so we could successfully avoid the consequences, but new fears are cropping up every 15 minutes now that we are not inconvenienced by having to wait for the morning paper. Nowhere is this more evident than in our own profession where the media love to be the first to spread the alarm.

CONTINUES ON 597

When you want your practice sales DONE RIGHT.

Dr. Robin's upcoming speaking engagements. Call us for more details.

- *September 11th, 2011* - Loma Linda University Dental School; *Dental Practice Act.*
- *September 22nd, 2011* - California Dental Association, San Francisco session; *Dental Practice Act.*
- *October 6th, 2011* - Orthodontic Study Club; *Dental Practice Act.*
- *October 16th, 2011* - La Vie En Rose, Brea; *Dental Practice Act.*
- *November 3rd, 2011* - Lucianas, Dana Point;*Practice Sales & Transitions.*
- *January 19th, 2012* - Southern California Oral/Facial Study Club; *Dental Practice Act.*
- *May 3rd, 2012* - California Dental Association, Anaheim session; *Dental Practice Act.*
- *March 4th, 2012* - Loma Linda University, Loma Linda; *Dental Practice Act.*

BetteRobin,DDS,JD

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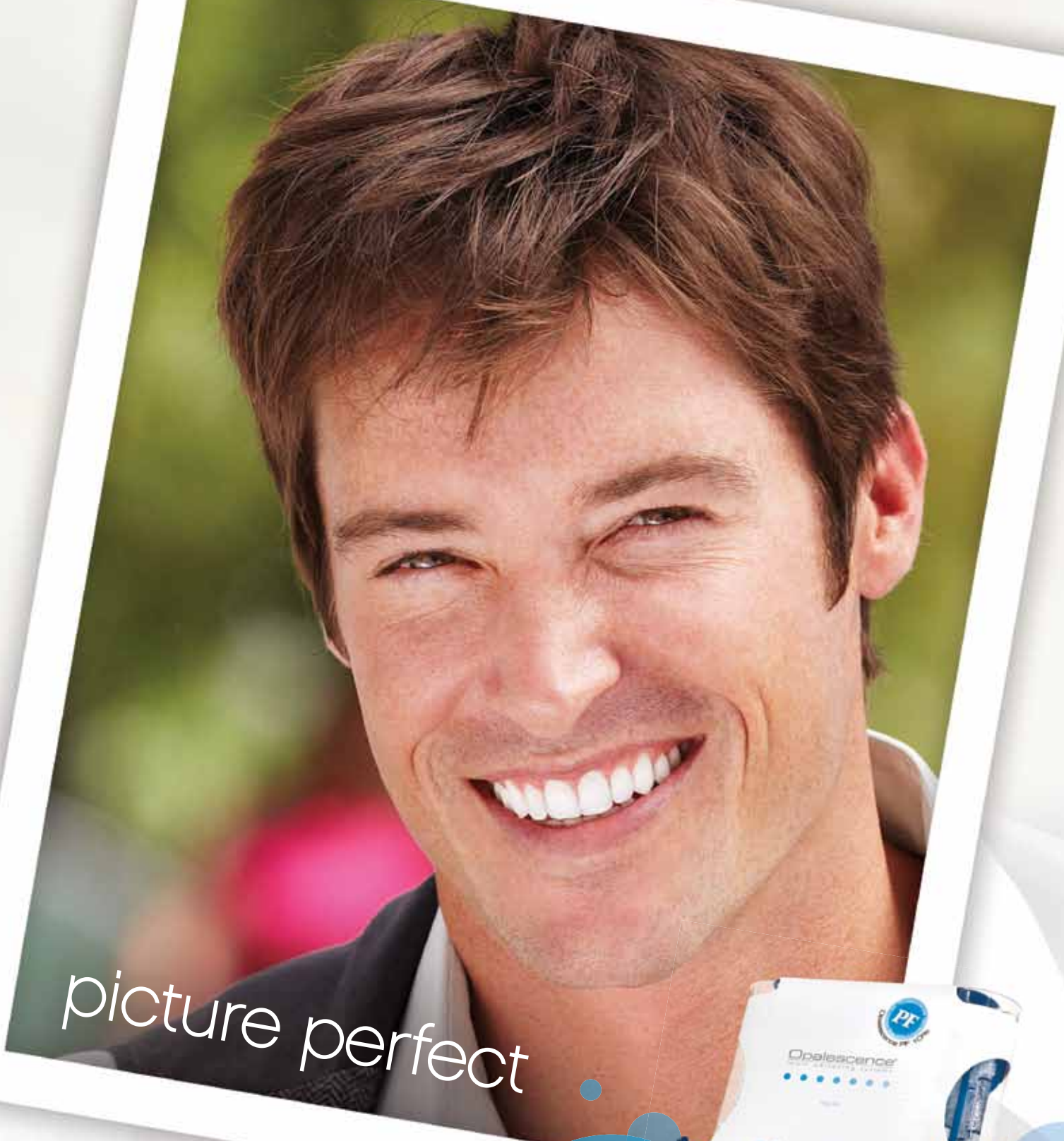

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