

Checkup

Volume 47 • Issue 1 • Spring 2018



WEST COAST
DISTRICT DENTAL ASSOCIATION

A COMPONENT OF THE
AMERICAN & FLORIDA DENTAL ASSOCIATIONS

Change of Venue...

The 2018 Summer Meeting
is being held at the
JW Marriott Marco Island
July 20-22

Register Today at wcdental.org



Mission: Helping Members Succeed

Culture: The Reliable Resource for Dentists

Values: Service, Commitment, Integrity and Excellence

New Summer Meeting Location!
DETAILS INSIDE!

President's Message



Natalie Carr-Bustillo, DDS, MS
President
West Coast District
Dental Association

First, I would like to thank you for the opportunity to serve as your president of the West Coast District Dental Association. I am proud to be among such a great group of people who care not only about their profession but also about improving oral health for all people of Florida.

In my opinion, this year's Mission of Mercy in Fort Myers was the most organized and successful Florida Mission of Mercy to date. The event, which is sponsored by the Florida Dental Association Foundation, is a 2 day large scale dental event to provide dental services to underserved people. We saw 1,906 patients and provided over \$1.75 million in treatment over 2 days. Lives were improved by providing preventive dental procedures and addressing those people in pain. I would like to personally thank, Dr. Chris Bulnes and Dr. Oscar Menendez as Co-chairs of the event. And a tip of the hat to Austin Moser, Coordinator of Foundation Affairs at the FDA for organization and leadership he gave to pull off a flawless event. There were extractions, fillings, cleanings, root canals, sealants and pediatric care performed. This year, thanks to the determination and hard work of Dr. Reza Iranmanesh, we were also able to provide 40 people with full dentures. I can not adequately describe the joy in the faces of those individuals who received the gift of new teeth. Of course, even though there were over 1300 volunteers that gave their time and expertise, an event of this size does not come without cost. I would like to thank Dr. Sam Desai and his team for the countless hours they put into fundraising for the event. Finally, I am proud of my fellow dentists, hygienists, lab technicians, dental students, assistants and others who took time off of their busy schedules to help improve the lives of the people of Ft. Myers and the surrounding area. Thank you for your hard work!

The summer meeting is coming up on July 20-22, 2018. It will be held at the JW Marriott in Marco Island. The summer meeting is a great family meeting. There is continuing education as well as fun for the whole family. Come join us as we hand the torch to Dr. Oscar Menendez, your next President. ☺

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2018 Annual Meeting Memories

To view more meeting photos, visit <http://wcddaphotoalbums.shutterfly.com/>.



HCC Dental Assisting Students displaying their table clinic presentations.



Dr. Nolan Allen graciously accepted the Kintsugi Award from Dr. Natalie Carr-Bustillo and Dr. Leo Cullinan.



Dr. Natalie Carr-Bustillo presented Dr. Clay McEntire with the Dr. Daniel Bertoch Leadership Award.

WCDDA Past Presidents:
(top) Drs. Chris Bulnes, Larry Morgan, JP, Hugh Wunderlich;
(bottom) Drs. Fred Grassin, Terry Buckenheimer and Paul Palo.



New Dentists socializing in WCDDA's New Dentist Lounge.



2019 ANNUAL MEETING February 1, 2019

Dr. Richard Winter – Dentistry as a Specialty

Bring Your Team!

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CAMLS
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CAMLS: Center for Advanced Medical Learning and Simulation
Downtown Tampa

10 Ways the ADA Made a Difference in 2017

- 1. Introduced new credentialing service.** The ADA® credentialing service, powered by CAQH ProView® is a digital solution that helps streamline the credentialing process. Now you can spend more time on patients and less time on paperwork. Start today at ADA.org/credentialing.
- 2. Helped new patients find you.** Since the launch of our ad campaign in July, the ADA Find-a-Dentist® website has seen more than 1,000,000 visits from potential patients. Make sure they find you! Take five minutes to upload your picture and update your profile. Find details at ADA.org/FAD5mins.
- 3. Participated in national dental legislation for the public.** The Action for Dental Health Act of 2017, calling for Congress to authorize additional oral health promotion and disease prevention programs, was passed by the House's Energy and Commerce's Subcommittee on Health by a unanimous vote. Also, the EPA published a final rule governing discharges of amalgam waste which closely follows the ADA's best management practices for amalgam waste and meets the nine principals established by the ADA House of Delegates as a condition for supporting a national rule. In addition, the ADA has been pressing Congress to take an active role in addressing opioid abuse, including helping convince the FDA to institute a prescriber education and outreach strategy to deal with the category of short-active opioids that dentists sometimes prescribe for acute pain.
- 4. Participated in national dental legislation for your dental practice and the dental profession.** The ADA continues to work towards reform regarding Medicare enrollment requirements and section 1557 regulation through active lobbying efforts. In addition, the ADA testified before the Senate Indian Affairs Committee in support of the medical credentialing system provision, calling for the Indian Health Service (IHS) to implement a centralized system to credential licensed health care professional who seek to provide health care services at any IHS facility.
- 5. Streamlined online CE offerings.** The ADA offers hundreds of online continuing education options, and our new CE tool enables you to keep track of the CE you take and print out the certificates you need. Learn more at ADACEonline.org.
- 6. Helped you stay current on third-party payer advocacy.** ADA members can now access data and documentation to help make sound decisions about payer networks, as well as obtain guidance on contract negotiations, financial forecasts, coding and reimbursements. Read more at ADA.org/dentalplans.
- 7. Assisted with debt management.** ADA membership entitles dentists to an additional 0.25% rate reduction on already-low interest rates on student loan refinancing through our endorsed partner Laurel Road, a division of Darien Rowayton Bank. The average dentist has saved more than \$30,000. View rates, terms and conditions and disclosures at LaureRoad.com/ADA.
- 8. Released new clinical guidelines and chairside guides.** The ADA Center for Evidence-Based Dentistry created new practice guidelines on the Evaluation of Potentially Malignant Disorders in the Oral Cavity, Sealants and Topical Fluoride. Read more at EDB.ADA.org.
- 9. Developed even more support for your practice.** The ADA Center for Professional Success created new resources for dentists on topics including preventing and dealing with identity theft, disaster preparedness and recovery, how to comply with the amalgam separator rule and various webinars targeting common practice needs, such as how to use social media to promote your practice.
- 10. Offered new materials to help educate your patients.** The ADA Catalog released a new brochure on tooth erosion and updated 20 existing brochures, including its top-seller on periodontal disease. The Catalog has also updated its CDT reference guide and many other professional resource products. Visit ADACatalog.org to find out more.

Dentists' Day on the Hill

February 6, 2018 was the first time I participated in the Florida Dentists' Day on the Hill. It was an amazing opportunity to be able to travel and advocate on behalf of organized dentistry, and to speak up for my profession. This was an eye-opening experience; to visualize the "behind the scenes" legislative side of dentistry, and how important it is to the future of our profession. Many of the senators and representatives we spoke with were not familiar with the bill we were fighting against; so it was very beneficial to inform them of the details and the reasoning behind our strong disagreement. This proved to me the importance of taking the time out of our busy schedules to travel to Tallahassee and educate legislators on the changing bills affecting the dental profession!

Dr. Brittany Pierpont
St. Petersburg, FL



Drs. Kristie Johnson, Brittany Pierpont and Joanna Magazine



Dentists' Day on the Hill attendees advocating on the behalf of all dentists.

Learning of the potential implementation of a "Dental Therapist" in this state is the main reason why I attended this year. I am quite concerned of the impact a position like this will have on our dental profession, and I strongly oppose. I felt it was important to show my support and advocate on behalf of all dentists in the State of Florida.

Dr. Joanna Magazine
St. Petersburg, FL

**Save the Date for Dentists' Day on the Hill
March 11-12, 2019!**



E-Cigarettes, Research and Your Health: What Do We Know About Electronic Cigarettes?

Check out the article on the WCDDA website, it is great insite into this new world of vaping and e-cigarettes, a really good read for our profession and to share with our patients.
[Visit wcdental.org/vape](http://wcdental.org/vape)



Importance of Membership

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These are just a few things tripartite dentistry has to offer. For more information about member benefits, call (800) 260-5277 or visit wcdental.org or floridadental.org.

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Advocacy: FDA and ADA lobbyists actively monitor issues and bills that affect dentistry. Visit ada.org/advocacy.aspx to view other important issues currently impacting dentistry.

ADA "Find a Dentist" Feature: The online tool, mouthhealthy.org promotes your practice by allowing you to keep your profile up to date and making it easy for potential patients to locate your practice.

Career and Tools: Where are you now in your dental career and where would you like to be? Dentistry offers many different career options and with these options come different considerations. Regardless of your professional path, chart your course for success by accessing several different tools to guide you. Think outside the box and visit, <https://success.ada.org/en/career>.

Decoding Dental Benefits: Are dental benefit claim issues taking more of your practice time than you'd like? Get help with information on dental benefit plans, coding, and third party payers to process claims accurately and efficiently. Visit, <https://success.ada.org/en/dental-benefits>.

FDA Services: Provides a wide range of insurance at affordable rates. Individual/Group Health, Professional Liability, Term Life, Workers Compensation, Disability, Malpractice, Auto and Pension plans are available. Contact Rick D'Angelo at (813) 475-6948 or rick.dangelo@fdaservices.com.

Peer Review: Avoid costly litigation by utilizing the member's only peer review service.

Crown Savings: FDA Services has researched and vetted business solutions so members can take advantage of exclusive deals and discounts offered through the Crown Savings program. Members who participate will save time, money and hassle, putting the focus back on patient care. Visit fdaservices.com/crownsavings.

Legal Resources: Legal questions and answers are an educational service of the Florida Dental Association (FDA) for members only. They have been prepared by FDA legal staff based on years of experience.

Contract Analysis Handbook: A Florida Dentist's Handbook on Managed-care Contracts "You Want Me to Sign What?" is available to members. Contact the WCDDA office to obtain your copy, (813) 654-2500.

ADA Credentialing: Spend more time with patients and less time on cumbersome, redundant paperwork. Think like a dentist and run your office like an entrepreneur with ADA's Credentialing Service. Visit ada.org/credentialing.

Leadership Opportunities: Your input at the local level is vital for dentistry today and in the future. To get involved, complete the enclosed Connection Card and return to the WCDDA Office or for more information, email lisette@wcdental.org.

ADA/FDA/WCDDA Websites: Information right at your fingertips, visit ada.org, floridadental.org and wcdental.org to access important information on laws, rules, and continuing education and employment opportunities.. Visit ADA's New Dentist Blog, newdentistblog.ada.org and FDA's Beyond the Bite Blog, floridadental.org/members/fda-blog.

CE Programs/Annual Meetings/Affiliate Meetings: Each association hosts annual meetings and monthly meetings that provide high quality continuing education to members and their staff at a significantly reduced rate. WCDDA's Annual Winter and Summer Meetings, WCDDA Affiliate Meetings, Florida Dental Convention (FDC) and the ADA's Annual Session.

Free Florida and HIPAA Compliance Forms: Free HIPAA forms are available to all members. Visit floridadental.org/members/member-resource

Free Online CE: Members receive up to 30 hours of FREE online CE courses at floridadental.org.

CE Broker Tracking: Continuing education attendance records are uploaded into CEbroker.com for each member who attends a meeting at the FDA, WCDDA and affiliate levels.

Members' Only Facebook Page: A platform to share ideas, best practices and conversate with your colleagues! To join, visit facebook.com/groups/wcddaclosedforum/

How to Fight Fraud in Your Dental Office

As a new dentist, there are plenty of issues to worry about. But one is a thing you might not expect. Fraud. "I never thought much about it," said Dr. Andrea Fallon, a new dentist who is a partner in a practice in a suburb of Springfield, Massachusetts. But it took an instance shortly after she started practicing when she realized the reality. Dr. Fallon was an associate when a dental assistant at her practice was fired after the head dentist learned that the assistant had been daily padding her hours on her time sheet. "To be honest, I am quite a trusting person," Dr. Fallon said. "So it was really hard for me to believe that someone would do it. When it did happen, although I was not an owner of the practice, I was involved, and it infuriated me. This one instance has caused me to be a little more diligent in keeping track of things." As a dentist, it is natural that you want to focus on dentistry, rather than managing the day-to-day financial details. You would prefer to leave these duties to your staff. But it is important to always pay close attention to the business side of your practice. Smart hiring practices can help to minimize the possibility for fraud. The ADA, in its manual "Protecting Your Dental Office From Fraud and Embezzlement," recommends the following be considered once your staff is in place:

- ✓ Separate duties so that no one person handles both patient payments and bank deposits. If possible, have the dentist make all bank deposits.
- ✓ Do daily audits by looking at every check, explanation of benefits and patient visit. Review every posted transaction on the day sheet. Run a check register daily and compare it to the daily deposit slip.
- ✓ Set a good example.
- ✓ Create a climate of accountability.
- ✓ Prosecute if you are defrauded. Prevent this person from moving on to another office.
- ✓ Listen carefully to patient complaints. "If your staff feels appreciated and rewarded for good work, they won't want to take from your practice," Dr. Fallon said. "Keep them happy, because if they are happy you will be too — with a lot less stress. I guess it all boils down to whom you hire, so make sure that every person on the team is pulling in the same direction. Set goals with rewards for your team to keep them engaged and feeling like if the practice thrives, they thrive too." To order the free-for-members manual "Protecting Your Dental Office From Fraud and Embezzlement," visit ebusiness.ADA.org and type "avoiding fraud" in the search engine.

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WCDDA Members

Congratulations to the following members for their continued commitment! The year 2017 marks their major milestone in supporting organized dentistry.

25 Years

Dr. Kathie Allen
Dr. Craig Broome
Dr. Kristin Burch
Dr. Dennis Corona
Dr. Brian Crosby
Dr. Juan Curci
Dr. Christian Davila

Dr. Ed de la Paz
Dr. Cynthia Deragon
Dr. R. Gilleland
Dr. David Greenberg
Dr. David Gulotte
Dr. Angela Hilton Foley
Dr. Jeffrey Joffe
Dr. Michael Kuba

Dr. Gregory Langston
Dr. Miguel Lopez
Dr. Andrew Martineau
Dr. Elizabeth McKenna Pfent
Dr. John Mengelberg
Dr. Farid Moghadasi
Dr. Bryan Oeth
Dr. Gaurangi Patel

Dr. Robert Reid
Dr. Deborah Royse
Dr. Gregory Rutherford
Dr. Gerardo Santiago
Dr. Gary Selby
Dr. Michael Sheffield
Dr. Steven Slavkin
Dr. Carl Steinkamp

35 Years

Dr. Thomas Brick
Dr. Michael Crovatt
Dr. John Dietrich
Dr. Joseph Dotson
Dr. Nicholas Dundee
Dr. Jacques Esclangon
Dr. John Galberry
Dr. James Hancock
Dr. Chrissy Koval

Dr. Angel Lopez
Dr. Oscar Menendez
Dr. Paul Miller
Dr. James Morrish
Dr. Daniel Mullett
Dr. Edmund Rahal
Dr. Steven Reddick
Dr. William Von Sick
Dr. David Zelin

50 Years

Dr. Edward Amley
Dr. Terrell Berryman
Dr. Edwin Carlson
Dr. Melvin Cohen
Dr. Mark Davis
Dr. Robert Duby
Dr. William Hutchinson
Dr. William Murray
Dr. Robert Northrop

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Dr. Stephen Schwartz
Dr. Frank Szot
Dr. James Vogt
Dr. Ridley Ward
Dr. Robert Westman

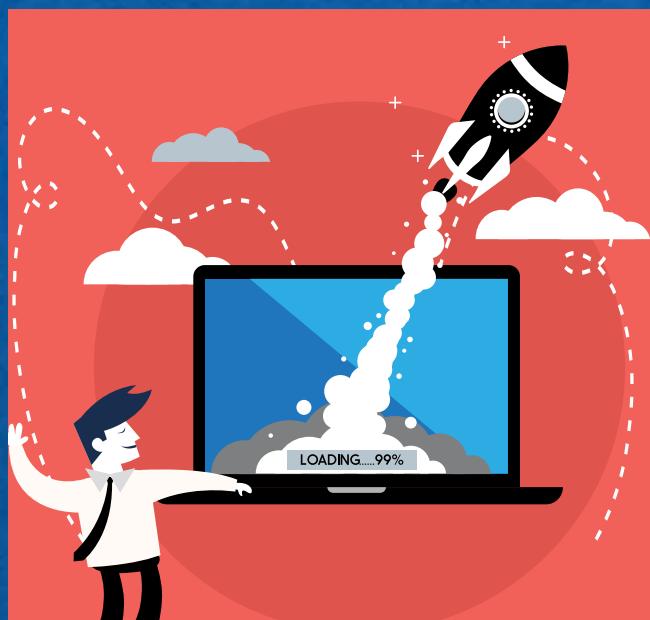
60 Years

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Dr. Ward Cole
Dr. Donald Dolan
Dr. Richard Dyer
Dr. Leon Frush
Dr. Richard Georgiades
Dr. Zade Gross
Dr. Lamar MacNutt
Dr. Gerald Sammons
Dr. Jerry Sewell
Dr. Joseph Spoto
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Dr. Anthony Kopczyk
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Dr. Michael Ruelf
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Dr. Gary Stevens
Dr. Charles Thomas
Dr. Marcia Timson
Dr. Marc Tindell



WE HAVE LIFT OFF...

Check out the newly designed WCDDA Website!

It is much more user-friendly on all platforms and has more resources than ever before.

Visit... wcdental.org today.

Show Commitment

The WCDDA would like to extend a warm welcome to new and returning members of the American, Florida and West Coast Dental Associations.

Dr. Jamil Abdelghani, Gulfport
Dr. Sandra Aljure-Estrada, Land O Lakes
Dr. Aymee Almaguer, Port Richey
Dr. Nahal Azizkhani, Saint Petersburg
Dr. Joanna Bala, Tampa
Dr. Andre Bandeira, Palm Harbor
Dr. Sean Bates , Osprey
Dr. Marnie Bauer, Tampa
Dr. Christopher Beach, Dunedin
Dr. Catalina Botero, New Port Richey
Dr. Joseph Breig, Riverview
Dr. Richard Burns, Kissimmee
Dr. Angela Butala, Tampa
Dr. Alexa Davila, Hernando
Dr. Michael Derakhshan, Brandon
Dr. Elizabeth Dy, Tampa
Dr. Paul Erben, Bradenton
Dr. Christopher Fall, Tampa
Dr. Danielle Fernandez, Wesley Chapel

Dr. Erik Garcia-Aranguren, Inverness
Dr. Marian Gerges, Lutz
Dr. Xhoana Gjelaj, Trinity
Dr. Steven Guelff, Sebring
Dr. Ivelis Hernandez-Ramirez, Naples
Dr. Jordan Hester, Naples
Dr. Zaid Hikmat, Pinellas Park
Dr. Elizabeth Ho, Tampa
Dr. Danielle Jones, Tampa
Dr. Naresh Kalra, Tampa
Dr. Marian Khalil, Clearwater
Dr. Reshma Kumar, Valrico
Dr. Larisa Kushnir, Clearwater
Dr. Reinaldo Lasanta-Garcia, Immokalee
Dr. Mauricio Martinez, Cape Coral
Dr. Ashley Massey, Spring Hill
Dr. Michael McNeill, Tampa
Dr. Ivan Mericle, Tampa
Dr. Mary Midence, Bonita Springs

Dr. Nathan Miller, Saint Petersburg
Dr. Eunice Nieves Vachet, Bradenton
Dr. Marc Ottenga, Bradenton
Dr. Heather Palmer, Cape Coral
Dr. Phong Phane, Saint Petersburg
Dr. Matthew Rasmussen, Tampa
Dr. Krystal Reyes Viruet, Fort Myers
Dr. Peter Rodenbostel, Saint Petersburg
Dr. Shahab Samimi, Valrico
Dr. Pooja Sandesara, Sarasota
Dr. Sandra Santos, Riverview
Dr. Neil Seaver, Lutz
Dr. Carolyn Sheetz, Naples
Dr. Sheetal Suryawanshi, Tampa
Dr. Violeta Trenkova, St. Petersburg
Dr. Chad Waltz, Brandon
Dr. Carla Webb, Clearwater

Milestones

We are deeply saddened by the death of our colleagues.

Daniel W. Davis, DMD of Dunedin – August 24, 2017

Dwain F. Marquette, DDS of Bradenton – March 30, 2018

Charles T. Phillips, Jr., DDS of Belleair – October 11, 2017

Clinton D. Rehnke, DDS of St. Petersburg – July 23, 2016

Donald D. Sherwin, Jr., DDS of Bradenton – December 11, 2017

Stephen F. Young, DDS of Winter Haven – December 9, 2017

A contribution has been made to the WCDDA Fund in their memory. If you would like to make a contribution, please make your check payable to the Florida Dental Health Foundation, indicate WCDDA Fund in the memo and mail to: Florida Dental Association, Attn: Foundation, 545 John Knox Road. Tallahassee, Florida, 32303.

2018 ~ Mark Your Calendar ~ 2019

WCDDA Executive Cabinet Meeting, Brandon	May 11, 2018
WCDDA Delegation Caucus, Various Sites	June 12, 2018
FDC, Gaylord Palms, Orlando	June 21-23, 2018
FDA House of Delegates, Gaylord Palms, Orlando	June 22-23, 2018
WCDDA Summer Meeting, JW Marriott Marco Island. .July 20-22, 2018	
ADA Annual Session, Honolulu, HI.	October 18-22, 2018
WCDDA Delegation Caucus, Various Sites	January 15, 2019
FDA House of Delegates, Tampa Marriott, tentative..	January 25-26, 2019

WCDDA Annual Meeting, CAMLS, Tampa . . . February 1, 2019
Dentists' Day on the Hill, Tallahassee.
March 11-12, 2019
FLA-MOM, Orlando
March 22-23, 2019
WCDDA Delegation Caucus, Various Sites
June 18, 2019
FDC, Gaylord Palms, Orlando
June 27-29, 2019
FDA House of Delegates, Gaylord Palms, Orlando
June 28-29, 2019
WCDDA Summer Meeting, The Ritz-Carlton, Naples . July 26-28, 2019



Association Business - Official Calls



The West Coast District Dental Associations' Executive Cabinet will meet on Friday, May 11, 2018 at 1:00pm at the WCDDA office in Brandon.

There will be a caucus of the West Coast District Dental Association's Delegation on Tuesday, June 12, 2018 at 6:00 p.m. via conference call. There will be twelve sites throughout the West Coast district.

The West Coast District Dental Association will hold a breakfast caucus in conjunction with the Florida Dental Association's House of Delegates meeting Saturday, June 23, 2018 at 7:00 a.m. at the Gaylord Palms, Orlando

Dr. Jessica Stilley-Mallah
WCDDA Secretary

You're Invited

2018-2019

West Coast District Dental Association's

Officer Installation

Saturday, July 21 2018

5:00 p.m.

JW Marriott Marco Island Beach Resort

*In conjunction with the
West Coast District Dental Association's
2018 Summer Meeting*

Beer, Wine & Cheese Reception to Immediately Follow.



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FLA-MOM 2018

Thanks to you, the 2018 Fort Myers #FLAMOM treated 1,906 patients, 11,899 procedures and provided more than \$1.75 million in donated care!

The next FLA-MOM event will be held March 22-23, 2019 in Orlando. With a goal of treating 2,000 patients, FLA-MOM seeks to have a positive impact on Central Florida by relieving pain and infection, restoring dignity and creating smiles. ☺



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Lasers to Manage Tooth Hypersensitivity

A Review

Zahed Mohammdi, D.M.D., M.S.D.; Hamid Jafarzadeh, D.M.D., M.S.D.

ABSTRACT

Dentin hypersensitivity (DH) is a common occurrence in dentistry. In order to prevent pulpal damage and patient discomfort, on-time diagnosis and treatment of DH are essential. There are several methods for managing DH, one of them is laser. The purpose of this review is to present an update on the applications of different types of laser, including Nd: YAG, Er: YAG, CO₂, and Nd: YAP, to manage DH.

Albert Einstein proposed the concept of stimulated emission of radiant energy in a short but elegant paper.¹ This concept became the foundation for modern laser physics. The possibility of stimulation emission of radiant energy in the form of photons in the infrared and visible or optical portions of the spectrum has been demonstrated, which led to laser development.^{2,3} The first laser was constructed by exciting a ruby rod with intense pulses of light from a flash lamp.⁴ The first actual continuously generating laser ("He-Ne" 633nm laser) was invented using a mixture of helium and neon gases.⁵

Many of these initial researchers, such as Stern and Sognae,⁶ and Goldman et al.,⁷ investigated potential applications of the ruby laser in dentistry. Thereafter, other types of lasers, such as argon (Ar; 514nm), carbon dioxide (CO₂; 10,600nm), neodymium: yttrium-aluminum-garnet (Nd: YAG; 1,064nm), and erbium (Er): YAG (2,940nm), were used.^{8,9}

Characteristics of Laser

Laser is an acronym for light amplification by stimulated emission of radiation. It is an artificial single photon wavelength. Stimulating an excited atom to emit a photon before the process occurs spontaneously causes the lasing process.¹⁰ Spontaneous emission of a photon by one atom stimulates the release of a subsequent photon, and so on. It is a single wavelength (monochromatic), collimated (very low divergence) and coherent (photons in phase).¹¹ The wavelength of a released photon depends on the state of the electron's energy. When the states of electrons of two identical atoms are the same, wavelengths of released photons are identical. The characteristics of a laser are defined by its wavelength.¹¹

Depending on the optical properties of that tissue, laser light can have four different interactions with the target tissue. It can reflect, scatter, be absorbed or be transmitted to surrounding tissues (Figure 1). Proteins, pigments and free water molecules are the major components responsible for the absorption of laser by tissues. The absorption coefficient strongly depends on the wavelength of the incoming laser irradiation. Absorption by water molecules plays a significant role in thermal interactions.¹²

Dentin Hypersensitivity

Dentin hypersensitivity (DH) is a short, sharp pain arising from exposed dentin in response to various thermal, evaporative, tactile, osmotic or chemical stimuli that cannot be attributed to any other dental disease.¹³⁻¹⁵ Based on the hydrodynamic theory, rapid dentinal fluid flow serves as the final stimulus in activating intradental noci-

ceptors for many different types of stimuli. The patency of the dentinal tubules is a prerequisite for the sensitivity of exposed dentin.¹³⁻¹⁵

It should be noted that dentinal pain is elicited by cold stimuli in up to 90% of patients. Several factors, such as anatomic defects, gingival recession, periodontal treatment, attrition, erosion and abrasion, have been suggested as possible risk factors for DH. Regarding the prevalence of DH, at least one in seven patients suffers from some degree of dentinal hypersensitivity.¹³⁻¹⁵ The most affected areas are the cervical region of incisors and premolars, often on the side opposite the dominant hand.

Management of Dentinal Hypersensitivity

DH management involves the application of materials or devices that reduce the flow of dentinal fluid or lower the activity of dentinal neurons. The requirements for treatment of DH are as follows: should be nonirritating to the pulp; relatively painless on application; performed easily; act rapidly; effective for a long period of time; devoid of staining effects; and consistently effective.¹⁶

Clinical interventions include: application to exposed dentinal tubules of resins, oxalate salts, isobutyl cyanoacrylate, and fluoride-releasing resins or varnishes; and the use of devices that burnish exposed dentin. Another approach to managing DH is laser use.^{13,17}

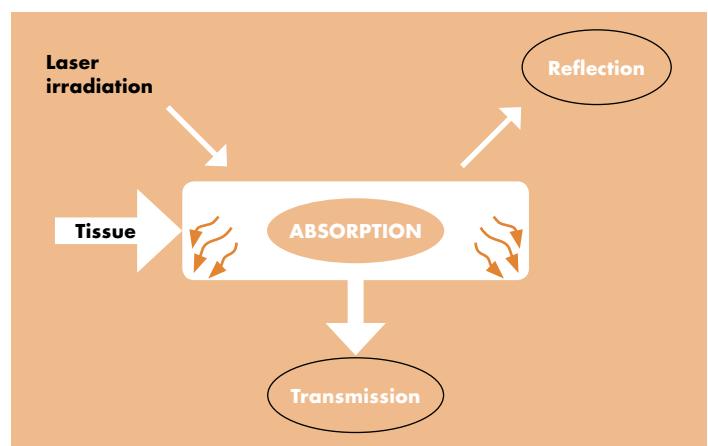


Figure 1. Schematic view of laser-tissue interaction.

Laser and Dentinal Hypersensitivity

Mechanism of Action

The rationale for laser-induced reduction in dentinal hypersensitivity is based on two possible mechanisms. First, laser irradiation may exert a direct effect on the electric activity of nerve fibers within the dental pulp. Second, laser can modify the tubular structure of the dentin by melting and fusing the hard tissue or smear layer and subsequent sealing of the dentinal tubules.^{16,17}

Classification of Lasers for Treating Hypersensitivity

Nd: YAG laser is a middle output power laser. Matsumoto et al.¹⁸ applied Nd: YAG laser to treat dentin hypersensitivity for the first time and found that it was 100% successful. Gelskey et al.¹⁹ found that He: Ne and He: Ne + Nd: YAG laser treatment can be used to reduce dentin hypersensitivity without adverse pulpal effects. White et al.²⁰ found that irradiation of dentin using Nd: YAG pulsed laser did not cause detrimental intrapulpal temperature rise. Lan and Liu²¹ found that Nd: YAG laser treatment reduced dentin hypersensitivity to air by 65% and to mechanical stimulus by 72% over three months. All teeth remained vital after laser treatment, without adverse reactions or complications.

Hong et al.²² showed that Nd: YAG laser was effective in desensitizing hypersensitive dentine after preparing occlusal seats for removable partial dentures. Lan et al.²³ demonstrated that over 90% of the dentinal tubule orifices were occluded by sodium fluoride varnish combined with Nd: YAG laser irradiation. Orchardson and Whitters²⁴ revealed that Nd: YAG laser could depress intradental nerve responses to dentin stimulation. Tokita et al.²⁵ demonstrated that spot irradiation with a pulsed Nd: YAG laser for dentin desensitizing purposes could cause nerve injury and irreversible pulpal damage. Yonaga et al.²⁶ showed that the method of irradiation by a pulsed Nd: YAG laser at cervical regions with black ink was most effective for cervical dentin treatment of hypersensitivity and that recurrence by this method was less than in other methods. A study demonstrated that combining

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fluor protector with Nd: YAG laser occluded most of the dentinal tubule orifices even after brushing.²⁷

In a double-blind, controlled, split-mouth designed clinical trial, Lier et al.²⁸ showed that the effect of treatment of hypersensitive teeth with Nd: YAG laser was not different than from placebo. Ciaramicoli et al.²⁹ evaluated the effect of Nd: YAG laser to treat DH. The results showed a statistically significant reduction of hypersensitivity in groups that received the treatment with Nd: YAG laser compared to the control teeth. However, the reduction of cervical DH was statistically greater when there was an association between the removal of etiologic factors with the application of Nd: YAG laser. Hu³⁰ revealed that at both one month and six months, Nd: YAG laser was effective in managing DH. Lan et al.³¹ evaluated the morphologic changes of hypersensitive dentin after Nd: YAG laser irradiation. The impression of the dentin surface after Nd: YAG laser treatment revealed no protrusive rods (a measure of open dentinal tubules), in contrast with the presence of numerous rods before laser irradiation.

de Magalhães et al.³² found that Nd: YAG laser was an effective measure for occluding dentinal tubule openings. Kumar and Mehta³³ found that the combination of Nd: YAG laser and 5% sodium fluoride varnish was effective in treating DH, compared to either treatment alone. Furthermore, the scanning electron microscopy (SEM) evaluation showed a reduction in number/patency of tubules. Al-Azzawi and Dayem³⁴ showed that both Nd: YAG laser and Sensodyne toothpaste were similarly effective in occluding dentinal tubules. However, the Nd: YAG laser occluded dentinal tubules within seconds, whereas Sensodyne takes at least three weeks.

Birang et al.³⁵ found that Nd: YAG laser was more effective than Er: YAG laser in reducing DH. Zapletalova et al.³⁶ showed that covering the dentin surface with erythrosin solution occluding dentinal tubules could be accomplished using pulsed Nd: YAG laser safely and effectively. Dilsiz et al.³⁷ found that the Nd: YAG laser was more effective than the diode laser in desensitizing teeth with gingival recession. A randomized prospective controlled clinical trial assessed the desensitizing effects of the Nd: YAG laser and fluoride varnish by considering the degree of pre- and post-treatment pain, discomfort and functional complications.³⁸ Findings showed that laser treatment resulted in significant improvements of discomfort immediately after treatment and after one week. At the two-, three- and four-week examination, the discomfort in the fluoride group decreased by up to nearly 75% to 85% of baseline scores, whereas the effect of the laser stayed nearly unchanged.³⁸ The visual analog scale scores for pain at the four-week examination were significantly lower in the fluoride group compared with those in the laser group.

CO₂ laser. Using microradiography and electron probe analysis, Kantola³⁹ revealed that creating a crater in dentin resulted in higher levels of calcium and phosphorus in the fused or recrystallized dentin, compared to normal dentin. He attributed this phenomenon to the burning off of the organic component by the laser

energy. A study using radiographic diffraction analysis demonstrated that laser irradiation caused structural changes and recrystallization of dentin so that it closely resembled the crystalline structure of normal enamel hydroxyapatite.⁴⁰ A study to assess the long-term effects of combined CO₂ laser treatment and fluoridation on cervical tooth hypersensitivity revealed that compared to conventional fluoridation, combined CO₂ laser irradiation and fluoridation were more effective.⁴¹ Scanning electron microscopic evaluation four to six months after laser treatment showed complete closure of the dentinal tubules. Atomic absorption spectroscopy showed that combining laser and fluoridation resulted in permanent integration of fluoride in the dentin surface.⁴¹ Zhang et al.⁴² showed that over three months, the CO₂ laser treatment reduced DH to air stimulus by 50%. All teeth remained vital, with no adverse effects. Furthermore, they revealed thermographically no temperature increase on irradiated tooth surfaces subjected to water coolant.⁴²

Diode laser. For the first time, Matsumoto et al.⁴³ reported effectiveness of diode laser to treat DH, ranging from 85% to 100%. This finding was confirmed by Yamaguchi et al.⁴⁴ Gerschman et al.⁴⁵ demonstrated the effectiveness of diode laser to treat thermal and tactile DH. Furthermore, they reported no adverse reactions. Corona et al.⁴⁶ found that both low-level diode laser and sodium fluoride varnish (Duraphat) were effective in decreasing cervical DH, and low-level diode laser was more effective in treating teeth with higher level of DH. Marsilio et al.⁴⁷ revealed that with the minimum and maximum energy recommended by the manufacturer, diode laser was effective in 86% and 88% of the irradiated teeth, respectively. The difference was not statistically significant. A study evaluated the effectiveness of two types of diode lasers (660 nm wavelength red, and 830 nm wavelength infrared) to manage DH and their immediate and late therapeutic effects in patients 25 to 45 years old.⁴⁸ Results demonstrated decreasing DH only in 25- to 35-year-old patients. In addition, the 660 nm red diode laser was more effective than the 830 nm infrared laser, and treatment was more effective at the first 15 and 30 minutes. Furthermore, the 660 nm red diode laser was more effective immediately and at long periods in 25- to 35-year-old patients with the 830 nm infrared diode laser.

Tengrungsun and Sangkla⁴⁹ found that both diode laser and dentin bonding agent were effective in desensitizing dentin to tactile and thermal stimuli up to 15 days. Sicilia et al.⁵⁰ demonstrated that the 810 nm diode laser and a 10% potassium nitrate bioadhesive gel were effective in treating DH immediately and after 15 and 30 minutes, although diode laser was more effective immediately after treatment. In a randomized, placebo-controlled, double-blind clinical study, Vieira et al.⁵¹ revealed that low-level diode laser, a 3% potassium oxalate gel, as well as control group, were effective for the treatment of DH immediately and after three months, compared with the hypersensitivity at baseline.

Helium-neon laser. The mechanism of DH reduction by He-Ne laser is not apparent. However, it seems that this laser af-

fects electric activity (action potential) rather than Ad- or C-fiber nociceptors.⁵² There is only one study concerning the application of He-Ne laser to manage DH. Senda et al.⁵³ applied the helium-neon laser in treating DH for the first time. An output power of 6 mW was used, which did not affect the morphology of the enamel or dentin surface, but allowed a small fraction of the energy to reach the pulp tissue. It was reported that the effectiveness of this treatment ranges from 5.2% to 100%.

Er: YAG laser. Schwarz et al.⁵⁴ compared the desensitizing effects of an Er: YAG laser and Dentin Protector on DH and found that both treatment forms resulted in significant improvements of discomfort immediately after and one week post-treatment. After two months, the discomfort in the Dentin Protector group increased up to 65% of the baseline score and even up to 90% after six months, whereas the effect of the laser remained at the same level that was achieved immediately after treatment. The differences immediately after, one week, two and six months post-treatment between both groups were statistically highly significant. Compared to the untreated control group, both treatment forms resulted in a significant reduction of discomfort at each follow-up examination. Another study showed that Er: YAG laser at 60 mJ, 2 Hz was useful for decreasing dentin permeability.⁵⁵

Nd: YAP laser. Lee et al.⁵⁶ assessed the efficacy of Nd: YAP laser and bioglass to treat DH. Four types of energy parameters to melt the composition-modified bioglass were used. These four types were 30 Hz, 330 mJ/pulse (G+ mode), 30 Hz, 160 mJ/pulse (G-mode), 10 Hz, 400 mJ/pulse (D+ mode) and 10 Hz, 200 mJ/pulse (D- mode). The temperature elevation, occlusive depth of bioglass, and phase changes in the bioglass after laser irradiation were evaluated by scanning electron microscope (SEM), thermometer and X-ray diffractometer (XRD). Findings showed that the occlusive depths of 2 and 10 µm in the dentinal tubules were achieved when the bioglass underwent 30 Hz, 160 mJ/pulse (G-mode) and 30 Hz, 330 mJ/pulse (G+ mode) of laser treatments, respectively. The bioglass experienced a temperature increase of less than 600° C, and no phase transformation was observed after Nd: YAP laser irradiation.

Conclusion

According to the findings of this review, Nd: YAG, CO₂, diode, Nd: YAP, Er: YAG and helium-neon lasers are effective in treating DH. Furthermore, the effectiveness of lasers for treating DH varies from 5% to 100%, depending on the type of laser and the treatment parameters. Furthermore, literature review demon-


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strated some side effects, such as nerve injury and irreversible pulpal damage for Nd: YAG laser. ☀

Queries about this article can be sent to Dr. Jafarzadeh at JafarzadehBH@mums.ac.ir.

REFERENCES

- Einstein A. Zur Quanten Theory der Starlung. *Phys Zeit* 1917;18:121-124.
- Gordon JP, Zeigler HJ, Townes CH. The maser-new type of amplifier, frequency standard and spectrometer. *Physiol Rev* 1955;39:1264-1267.
- Schawlow AL, Townes CH. Infrared and optical red maser. *Physiol Rev* 1958;38:1940-1943.
- Maiman TH. Simulated optical radiation in ruby. *Nature* 1960;187:493-495.
- Javan A, Bennet WR, Herrott DR. Population inversion and continuous optical Maser oscillation in a gas discharge containing a HeNe mixture. *Physiol Rev Letter* 1961;6:106-109.
- Stern RH, Sognaes RF. Laser beam effect on dental hard tissues. *J Dent Res* 1964;43:873-875.
- Goldman L, Hornby P, Meyer R, et al. Impact of the laser on dental caries. *Nature* 1964;203: 417-422.
- Sulewski JG. Historical survey of laser dentistry. *Dent Clin North Am* 2000;44:717-752.
- Weichman JA, Johnson FM. Laser use in endodontics. A preliminary investigation. *Oral Surg* 1971;3:416-420.
- Aoki A, Sasaki KM, Watanabe H, et al. Lasers in nonsurgical periodontal therapy. *Periodontol 2004*;36:59-97.
- Clayman L, Kuo P. Lasers in Maxillofacial Surgery and Dentistry. New York: Thieme. 1997.
- Rossmann JA, Cobb CM. Lasers in periodontal therapy. *Periodontol 2000*;9:150-164.
- Porto IC, Andrade AK, Montes MA. Diagnosis and treatment of dentinal hypersensitivity. *J Oral Sci* 2009;51:323-332.
- Mohammadi Z. Laser applications in endodontics: an update review. *Int Dent J* 2009;59:35-46.
- Cummins D. Dentin hypersensitivity: from diagnosis to a breakthrough therapy for everyday sensitivity relief. *J Clin Dent* 2009;20:1-9.
- Stabholz A, Sahar-Helft S, Moshonov J. Laser in endodontics. *Dent Clin North Am* 2004;48: 809-832.
- Bartold PM. Dentinal hypersensitivity: a review. *Aust Dent J* 2006;51:212-218.
- Matsumoto K, Funai H, Shirasuka T, Wakabayashi H. Effect of Nd: YAG laser in treatment of cervical hypersensitive dentin. *Jpn J Conserv Dent* 1985;28:760-765.
- Gelskey SC, White JM, Pruthi VK. The effectiveness of the Nd: YAG laser in the treatment of dental hypersensitivity. *J Can Dent Assoc* 1993;59:377-378.
- White JM, Fagan MC, Goodis HE. Intrapulpal temperatures during pulsed Nd: YAG laser treatment of dentin, in vitro. *J Periodontol* 1994;65, 255-259.
- Lan WH, Liu HC. Treatment of dentin hypersensitivity by Nd: YAG laser. *J Clin Laser Med Surg* 1996;14:89-92.
- Hong L, Wu M, Zhang C. Using Nd-YAG laser to desensitize the hypersensitive dentin in preparing the abutment teeth for removable partial dentures prosthesis. *Zhonghua Kou Qiang Yi Xue Za Zhi* 1997;32:28-30.
- Lan WH, Liu HC, Lin CP. The combined occluding effect of sodium fluoride varnish and Nd: YAG laser irradiation on human dentinal tubules. *J Endod* 1999;25:424-426.
- Orchardson R, Whitters CJ. Effect of HeNe and pulsed Nd: YAG laser irradiation on intradental nerve responses to mechanical stimulation of dentin. *Lasers Med Sci* 2000;26:241-249.
- Tokita Y, Sunakawa M, Suda H. Pulsed Nd: YAG laser irradiation of the tooth pulp in the cat: I. Effect of spot lasing. *Lasers Surg Med* 2000;26:398-404.
- Yonaga K, Kimura Y, Matsumoto K. Treatment of cervical dentin hypersensitivity by various methods using pulsed Nd: YAG laser. *J Clin Laser Med Surg* 1999;17:205-210.
- Zhang C, Lin Q, Zhao B. The combined occluding effect of fluor protector and Nd: YAG laser irradiation on human dentinal tubules. *Zhonghua Kou Qiang Yi Xue Za Zhi* 2001;36:105-107.
- Lier BB, Rösing CK, Aass AM, Gjermoe P. Treatment of dentin hypersensitivity by Nd: YAG laser. *J Clin Periodontol* 2002;29:501-506.
- Ciaramicoli MT, Carvalho RC, Eduardo CP. Treatment of cervical dentin hypersensitivity using neodymium: Yttrium-aluminum-garnet laser. Clinical evaluation. *Lasers Surg Med* 2003;33:358-362.
- Hu C. Dentin hypersensitivity treated with Nd: YAG laser: experience with 262 cases. *Di Yi Jun Yi Da Xue Bao* 2004;24:319-320.
- Lan WH, Lee BS, Liu HC, Lin CP. Morphologic study of Nd: YAG laser usage in treatment of dentinal hypersensitivity. *J Endod* 2004;30:131-134.
- de Magalhães MF, Matson E, de Rossi W, Alves JB. A morphological in vitro study of the effects of Nd: YAG laser on irradiated cervical dentin. *Photomed Laser Surg* 2004;22:527-532.
- Kumar NG, Mehta DS. Short-term assessment of the Nd: YAG laser with and without sodium fluoride varnish in the treatment of dentin hypersensitivity—a clinical and scanning electron microscopy study. *J Periodontol* 2005;76:1140-1147.
- Al-Azzawi LM, Dayem RN. A comparison between the occluding effects of the Nd: YAG laser and the desensitizing agent Sensodyne on permeation through exposed dentinal tubules of endodontically treated teeth: an in vitro study. *Arch Oral Biol* 2006;51:535-540.
- Birang R, Poursamimi J, Gutknecht N, Lampert F, Mir M. Comparative evaluation of the effects of Nd: YAG and Er: YAG laser in dentin hypersensitivity treatment. *Lasers Med Sci* 2007;22:21-24.
- Zapletalová Z, Perina J Jr, Novotný R, Chmelícková H. Suitable conditions for sealing of open dentinal tubules using a pulsed Nd: YAG laser. *Photomed Laser Surg* 2007;25:495-499.
- Dilsiz A, Canakci V, Ozdemir A, Kaya Y (2009) Clinical evaluation of Nd: YAG and 685-nm diode laser therapy for desensitization of teeth with gingival recession. *Photomed Laser Surg* 2009;27:843-848.
- Kara C, Orbak R. Comparative evaluation of Nd: YAG laser and fluoride varnish for the treatment of dentinal hypersensitivity. *J Endod* 2009;35:971-974.
- Kantola S. Laser-induced effects on tooth structure. V. Electron probe microanalysis and polarized light microscopy of dental enamel. *Acta Odontol Scand* 1972;30:475-484.
- Kantola S. Laser-induced effects on tooth structure. VII. X-ray diffraction study of dentine exposed to a CO₂ laser. *Acta Odontol Scand* 1973;31:381-386.
- Moritz A, Gutknecht N, Schoop U, Goharkhay K, Ebrahim D, Wernisch J, Sperr W. The advantage of CO₂-treated dental necks, in comparison with a standard method: results of an in vivo study. *J Clin Laser Med Surg* 1996;14:27-32.
- Zhang C, Matsumoto K, Kimura Y, Harashima T, Takeda FH, Zhou H. Effects of CO₂ laser in treatment of cervical dentinal hypersensitivity. *J Endod* 1998;24:595-597.
- Matsumoto K, Funai H, Wakabayashi H, Oyama T. Study on the treatment of hypersensitive dentin by GaAlAs diode laser. *Jpn J Conserv Dent* 1985;28:766-771.
- Yamaguchi M, Ito M, Miwata T, Horiba N, Matsumoto T, Nakamura H, Fukaya M. Clinical study on the treatment of hypersensitive dentin by GaAlAs laser diode using the double blind test. *Aichi Gakuin Daigaku Shigakkai Shi* 1990;28:703-707.
- Gerschman JA, Ruben J, Gebart-Eaglemont J. Low level laser therapy for dentinal tooth hypersensitivity. *Aust Dent J* 1994;39:353-357.
- Corona SA, Nascimento TN, Catirse AB, Lizarelli RF, Dinelli W, Palma-Dibb RG. Clinical evaluation of low-level laser therapy and fluoride varnish for treating cervical dentinal hypersensitivity. *J Oral Rehabil* 2003;30:1183-1189.
- Marsilio AL, Rodrigues JR, Borges AB. Effect of the clinical application of the GaAlAs laser in the treatment of dentin hypersensitivity. *J Clin Laser Med Surg* 2003;21:291-296.
- Ladalardo TC, Pinheiro A, Campos RA, Brugnara Júnior A, Zanin F, Albernaz PL, Weckx LL. Laser therapy in the treatment of dentin hypersensitivity. *Braz Dent J* 2004;15:144-150.
- Tengrungsun T, Sangklar W. Comparative study in desensitizing efficacy using the GaAlAs laser and dentin bonding agent. *J Dent* 2008;6:392-395.
- Sicilia A, Cuesta-Frechoso S, Suárez A, Angulo J, Pordomingo A, De Juan P. Immediate efficacy of diode laser application in the treatment of dentin hypersensitivity in periodontal maintenance patients: a randomized clinical trial. *J Clin Periodontol* 2009;36:650-660.
- Vieira AH, Passos VF, de Assis JS, Mendonça JS, Santiago SL. Clinical evaluation of a 3% potassium oxalate gel and a GaAlAs laser for the treatment of dentinal hypersensitivity. *Photomed Laser Surg* 2009;27:807-812.
- Jarvis D, Bruce MacIver M, Tanelian, DL. Electrophysiologic recording and thermodynamic modeling demonstrate that helium-neon laser irradiation does not affect peripheral A-D or C-fiber nociceptors. *Pain* 1990;43:235-242.
- Senda A, Gomi A, Tani T, Yoshino H, Hara G. A clinical study on "soft laser 632," a He-Ne low energy medical laser. I: Pain relief immediately after irradiation. *Aichi Gakuin Daigaku Shigakkai Shi* 1985;23:773-780.
- Schwarz F, Arweiler N, Georg T, Reich E. Desensitizing effects of an Er: YAG laser on hypersensitive dentin. *J Clin Periodontol* 2002;29:211-215.
- Aranha AC, Domingues FB, Franco VO, Gutknecht N, Eduardo Cde P. Effects of Er: YAG and Nd: YAG lasers on dentin permeability in root surfaces: a preliminary in vitro study. *Photomed Laser Surg* 2005;23:504-508.
- Lee BS, Chang CW, Chen WP, Lan WH, Lin CP. In vitro study of dentin hypersensitivity treated by Nd: YAG laser and bioglass. *Dent Mater* 2005;21:511-519.



Dr. Mohammadi



Dr. Jafarzadeh

Zahed Mohammadi, D.M.D., M.S.D., is a member of the Iranian Center for Endodontic Research, Research Institute of Dental Sciences, Shaheed Beheshti University of Medical Sciences, Iranian National Elite Foundation, Tehran, Iran.

Hamid Jafarzadeh, D.M.D., M.S.D., is affiliated with the Department of Endodontics, Faculty of Dentistry, Mashhad University of Medical Sciences, Mashhad, Iran.



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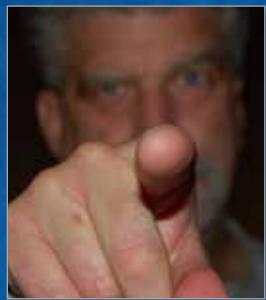
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March Madness is not just about Basketball

With apologies to Dick Vitale.

Hey, dental fans of the West Coast, wake up from the office pools and your political hibernation. Think this is about NCAA Basketball? No.....way, man. This "Big Dance" is "The Big Ticket in Tallahassee." This "March Madness" is the 2018 Florida Legislative Session. Instead of Dickey-V, it is Hughey T giving you the X's and O's on the "Access-to-care Championship."

Tip-off this year was again in turbulent Tallahassee. Legislators debated the merits of this complex "championship" over the course of the Legislative Session. This year the FLADPackers, a perennial Final Four team, are too "Times Square" and may not bring home a "W." They need your help. The Packers have a real "doughnut offense" and are "drillin' Reggies when they need Pete Roses." This year a "space-eater" – a real "PTP" – was in the field that "shoots the Area Code J." They were a real "strawberry shortcake," baby!

The Dental Health Aid Therapists, the "DeeHats" were this years' real "blender," an "All-Avis team." They want to work the perimeter using a high school trained team on "simple procedures" under general supervision. This was no "dipsy-doo, dunk-a-roo," baby!

This session proved to be a year where false comparisons and distortion of information took center court as individuals and national organizations lobbied the Legislature to change Florida's dental workforce. Individuals from within the dental profession, along with the Florida Dental Hygienists' Association (FDHA), worked with lobbyists from the Pew Charitable Trusts advocating for the creation of dental therapists in Florida. The new team would be a new licensed dental provider called a dental therapist, in which a high school graduate with three years of dental therapy training would be allowed to perform irreversible surgical procedures, such as extractions and partial root canals under the general supervision of a dentist — which doesn't require the dentist to check the work or be in the building when the procedures are being performed. The FDA opposed this legislation because Florida has a sufficient dental workforce to address the dental care needs of this state. However, many dentists are challenged with a large amount of debt, which makes it difficult to set up a practice in a rural area and maintain a sustaining practice, especially with low Medicaid reimbursement rates. Furthermore, the FDA is concerned that this would lower the standard of care for dentistry — particularly among our state's most vulnerable populations, who suffer from the most complex problems and higher rates of tooth decay. The FDA is advocating for the return of the dental student loan repayment program to remedy this problem, which would provide qualified dentists with a salaried paying job in a community health center. The state would then pay at least \$50,000 on their student loan for up to five years.

It is evident that these individuals and organizations are going to continue to travel all over the United States to try to convince legislators that dental therapists are the solution to addressing access to dental care. Our job is to show them that the FDA has always pursued ways to help increase access to dental care in Florida, but in such a way that maintains the high standard of education and training dentists achieve to provide comprehensive dental care to all patients.

The key to this year's access trophy is not the traditional 3-D man (he dives, he draws, he dishes) but rather the access triad of the best blend of demand, dental workforce and dollars. That's a "N.C. trifecta," baby!

The "diaper dandies" this year on the hardwood of the legislative floor are the limits on prescribing opioids and a Department of Health package. The "engines" of the FDA failed to get this off the bench. Expect these teams to be my All-Alcatraz teams of the "show," with the DHATs still a Rip Van Winkle, baby!

As always, the access-to-care court is the unemployed, the culturally isolated, uninsured, special needs, poor and working poor of both the rural and inner city. But when considering access to care, we must consider both the availability of care and the willingness of the patient to seek care.

The winning team would increase the number of dentists in underserved areas, increase Medicaid rates and ancillary personnel and include benefits in Medicare. The efficient use of a dental health care team especially in risk assessment, prevention of caries and increased fluoridation are the "Mr. PacMan" of any winning program, baby!

The "Fladpackers" have been a "human spaceship" but they need to "dish the rock" a little, baby, to be a "surf and turfer" of the "Big Show". Who is likely to ride their bubble through the brackets? Who is likely to get Popped and exit early? This is no "Cream Puff Delight." The No. 1 seeded "Packers" better bend their tradition style, take to the floor on Dentists' Day on the Hill and work all year round to build some coalitions or they will get a "Wilson sandwich." Awesome, baby!

(Gleaned from dickvitaleonline.com<<http://dickvitaleonline.com>> and the FDA Capital Report)



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Glades	Hillsborough	Sarasota
		Lee

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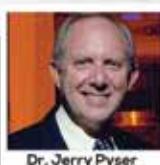
Dr. Jack Saxonhouse
Palm Beach County



Morde Smith, CPP
West Coast



Greg Jones
Broker Associate



Dr. Jerry Pyser
Statewide
Representation



Mary Ann Serkin
Northeast, FL



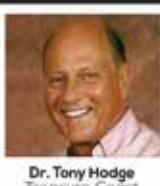
Ron Rubenstein
Practice Sales



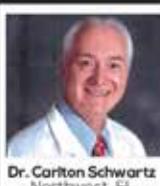
Dr. Marshall Berger
Broward County



Deanna Eiss
Central Florida



Dr. Tony Hodge
Treasure Coast



Dr. Carlton Schwartz
Northwest, FL



Samantha Jones
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Marc Oxenstein
Miami-Dade, FL



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West Coast District Dental Association Annual Summer Meeting



July 20-22, 2018
JW Marriott Marco Island Beach Resort

Annual Summer Meeting Program

JW MARRIOTT MARCO ISLAND BEACH RESORT

JULY 20-22, 2018

REGISTER ONLINE
at wc dental.org

Friday, July 20th

Registration and Exhibits	7:30am – 11:30am
Backwater Fishing	8:00am – Noon
Antibiotic Prophylaxis	8:00am – 11:30am
Pamela Sims, Pharm.D., Ph.D.....	3 CE Credits
10k Ally Social	8:00pm – 9:00pm
Cigars and Cordials	9:00pm
Come join fellow aficionados at our annual Cigars and Cordials event. (Cigars and cordials are at your own expense)	

Saturday, July 21st

Registration and Exhibits	7:30am – 11:30am
Local Anesthetics: Drug Interactions and Drug Allergy	8:00am – 11:30am
Pamela Sims, Pharm.D., Ph.D.....	3 CE Credits
Family Fun Foto Challenge	9:00am – 11:00am
Beach Volleyball Tournament	1:00pm – 3:00pm
WCDDA Officer Installation	5:00pm
Beer, Wine & Cheese Reception	5:30pm – 7:00pm
Kids Night Out	6:00pm – 10:00pm

Sunday, July 22nd

Registration and Exhibits	7:30am – 11:30am
Acute Pain Management	8:00am – 11:30am
Pamela Sims, Pharm.D., Ph.D.	3 CE Credits

Tiki Tribe Discovery Day Camp

AGES: 5 - 12 years old, HOURS: 10:00 a.m. - 3:00 p.m.

The day camp is a small, nurturing environment in which campers have fun while growing as individuals and as members of a group through participation in a variety of activities focused on the theme of the day. Campers are led by Marriott-trained activity coordinators where they receive individualized attention while participating in swimming, crafts, sports, nature lessons, video games, and back-of-the-house tours! \$70.00 Per Child, Includes Lunch. Reservations suggested; call 800.638.8410 or email VacationPlanner@Marriott.com

Sunset Celebration

Watching the Marco Island sunset is the perfect way to slow down, relax, and immerse yourself in the iconic Florida ritual of worshipping the beauty, power, and warmth of our golden sun. Also, not to be missed nightly, live Fire Dancer show, which begins at sunset at Quinn's. This high-energy performance pays homage to the Balinese inspiration and design aesthetic of our resort. Come watch in awe at the talent of our spectacular Fire Dancer. It's fun for the entire family!

Hotel Reservations & Meeting Registration

JW Marriott Marco Island Beach Resort sits on three miles of private white sand beach on the Gulf of Mexico, the luxury hotel offers a haven of waterfront tranquility. There are ten superb restaurants that cater to every taste. Refresh and rejuvenate at the Spa by JW® or make a splash in one of the three resort swimming pools (beachfront cabanas are available). Experience endless opportunities for relaxation and fun with kayaks, wave runners, sailboats and activities designed to awaken the senses, delight the spirit and calm the soul. The Balinese-inspired decor pays tribute to Marco Island, Florida heritage, while creating a backdrop for lasting memories.

Reservations can be made online by visiting wc dental.org or by contacting The JW Marriott Marco Island at **1(800) GET-HERE**. Request the West Coast District Dental Association **room block rate of \$185.00 Run of House**. Limit 2 rooms per registrant. Registrants desiring more than two rooms may check back after May 31, 2018 at which time if there are still rooms remaining in the group room block, the additional rooms will be made available on a first come basis. **Gulf Front rooms and New Lanai Tower (adult only area) rooms** can be secured through the WCDDA office at (813) 654-2500.

Individuals not registered for the meeting will be charged the hotel rack rate instead of the group rate upon checkout.

CE fees after July 6th increase by \$20.00 per registrant.
Pre-registered dentists receive a WCDDA amenity.

Refund and Cancellation Policy

All requests for refunds or cancellations must be made in writing to the WCDDA prior to the pre-registration deadline of July 6, 2018. A cancellation/processing fee of 15% will be charged. No refunds will be given if cancellation is received after the pre-registration deadline. No refunds will be given on site. Questions concerning reservations should be addressed with The JW Marriott Marco Island (239) 394-2511.

Questions concerning meeting registration should be addressed with the WCDDA office (813) 654-2500.



Support the WCDDA Fund

Make a donation to support the WCDDA Fund for your chance to win a variety of items that will be raffled throughout the meeting. A complete list of items will be featured in the onsite program. Raffle tickets start at \$5.00. You do not have to be present to win. **You may purchase tickets on the enclosed registration form or online.**

The WCDDA Fund supports local dental health education, access to care projects, careers in dentistry and disaster relief.

COURSE & EVENT DESCRIPTIONS

Friday, July 20th

Antibiotic Prophylaxis -3 CE Credits

Pamela Sims, Pharm.D., Ph.D.

Preventing infection for certain at-risk patients is an important responsibility of the dentist and their staff. Understanding the current guidelines associated with antibiotic prophylaxis is essential for the dentist to provide the best care for patients. This program will review the current antibiotic prophylactic guidelines including identifying at risk patients; making appropriate antibiotic choices; anticipating common adverse drug effects and preventing important drug-drug interactions.

Objectives:

1. Identify and review the current guidelines regarding antibiotic prophylaxis.
2. Based upon the guidelines, identify at risk patients who require prophylaxis.
3. Based upon the guidelines, identify dental procedures for which at risk patients should receive antibiotic prophylaxis.
4. Select the antibiotics, doses and routes of administration recommended for prophylaxis.
5. Identify and select antibiotic choices for patients with antibiotic allergies.
6. Identify and select antibiotic choices to reduce the risk of drug-drug interactions with existing patient medications.
7. Identify and describe drug-related concerns associated with antibiotics.

Backwater Fishing

8:00am – Noon, \$175.00pp

Join your WCDDA friends for the finest backwater fishing Southwest Florida has to offer. The group will leave from the Rose Marco Island River Marina at 8am and will be on the water for a (4) hour fishing trip returning to the marina at Noon. The types of fish... pompano, snook, snapper, redfish and sea trout, you will also see much of Florida's wildlife including dolphins, manatees and osprey. This is a great trip for any age, good fishing action with little travel. Rods, Reels, bait, tackle, fishing license, boxed lunch and drinks provided and included in the price.

10K Ally Social – 8:00pm - 9:00pm

Dentists and spouses are invited to have some fun with your West Coast friends in the entertainment complex.

Saturday, July 21st

Local Anesthetics: Drug Interactions and Drug Allergy - 3 CE Credits

Pamela Sims, Pharm.D., Ph.D.

Local Anesthesia is the procedure most frequently associated with adverse events in the dental office. Administration of local anesthesia containing vasoconstrictors can cause serious interactions with several different groups of medications commonly taken by patients. Dr. Sims will explain the reasons for the interactions, describe the potential adverse consequences of the interactions, and identify the interacting

Participants are cautioned of the potential risk of using knowledge when incorporating techniques and procedures into your practice, especially when a course has not provided supervised clinical experience in the technique or procedure to ensure that you have attained competence.

The West Coast Dental Association and Program Committee make every effort to present high-caliber speakers in their respective areas of expertise. The speakers' presentations in no way imply endorsement of any product, technique or service presented during these presentations. The Florida Dental Association specifically disclaims responsibility for any material presented.

medications. Furthermore, she will explain strategies to minimize or prevent the interactions. In addition, Dr. Sims will discuss emerging concerns about allergic reactions to local anesthetics.

Objectives:

1. Identify the components of local anesthesia most likely to cause adverse drug effects or drug interactions.
2. Identify groups of medications with important interactions with local anesthesia.
3. Describe the mechanism of the interaction and the impact on the patient's health.
4. Understand strategies to reduce or avoid adverse effects or drug interactions with local anesthesia.
5. Describe and understand the prevalence of allergic reactions to local anesthetics.

WCDDA Beach Volleyball Tournament

1:00pm – 3:00pm, Free Event

Teens and adults, get ready to *bump, set and spike* against your fellow WCDDA friends. Teams will be assembled by county representation. Registration is required to participate, this is a free event. Arrive on time to meet your teammates and be prepared to have fun!

WCDDA Kids Night Out

6:00pm – 10:00pm

Ages 4-12 \$99.00 p/p

Kids night out is a fun night of visiting with WCDDA friends, playing games, making crafts and watching movies led by Marriott-trained activity coordinators. Snacks included.

Sunday, July 22nd

Acute Pain Management - 3 CE Credits

Pamela Sims, Pharm.D., Ph.D.

This program will discuss the management of acute pain in the dental patient. The course will provide dentists and staff with up-to-date information regarding analgesic medications used in dentistry and medications patients take that interact with this dental care. Concerns regarding drug abuse and non-opioid alternatives for pain management will be provided.

At the conclusion of this course the participant should be able to

1. Identify appropriate analgesic therapy for the management of pain
2. Identify the most common drug-related issues for NSAIDs
3. Identify the most common drug-related issues for opiates and tramadol
4. Recognize common drug interactions for NSAIDs, opiates and tramadol

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WCDDA is an ADA CERP Recognized Provider.

ADA CERP is a service of the American Dental Association to assist dental professionals in identifying quality providers of continuing dental education. ADA CERP does not approve or endorse individual courses or instructors, nor does it imply acceptance of credit hours by boards of dentistry.



THE RITZ-CARLTON®

THE 2019 WCDDA SUMMER MEETING
IS RETURNING TO
THE RITZ-CARLTON, NAPLES

JULY 26-28, 2019
FEATURED SPEAKER: DR. GREG OXFORD



**West Coast District Dental Association
Annual Summer Meeting - Registration Form
July 20-22, 2018**

**REGISTER ONLINE
at wcdental.org**

Please Print Clearly

Name of Registering Dentist: _____ Phone: _____

Address: _____ City: _____ State: _____ Zip: _____

Email: _____ ADA #: _____ License #: _____

Staff Name: _____ Staff Name: _____ Staff Name: _____

CE Fees	<input type="checkbox"/> MEMBER \$250.00 (WCDDA, FDA, ADA)	<input type="checkbox"/> NON-MEMBER \$390.00	<input type="checkbox"/> RESIDENT/
All Inclusive:	<input type="checkbox"/> RETired MEMBERS \$50.00	<input type="checkbox"/> STAFF \$50.00	STUDENT FREE

Friday, July 20th

- | | | |
|--|--------------------------------|----------|
| <input type="checkbox"/> 8:00 a.m. Antibiotic Prophylaxis | No. of attendees _____ | \$ _____ |
| <input type="checkbox"/> 8:00 a.m. Backwater Fishing.....\$175.00/Person | No. fishing _____ x \$175.00 = | |
| <input type="checkbox"/> 8:00 p.m. - 9:00 p.m. 10k Ally Social.....Free | No. of attendees _____ | |
| <input type="checkbox"/> 9:00 p.m. Cigars & Cordials.....At your own expense | No. of attendees _____ | |

Saturday, July 21st

- | | | |
|--|------------------------|----------|
| <input type="checkbox"/> 8:00 a.m. Local Anesthetics: Drug Interactions and Drug Allergy | No. of attendees _____ | \$ _____ |
| <input type="checkbox"/> 9:00 a.m. Family Fun Foto ChallengeFree | No. of attendees _____ | |
| <input type="checkbox"/> 1:00 p.m. Beach Volleyball Tournament.....Free | No. of attendees _____ | |
| <input type="checkbox"/> 5:00 p.m. Officer Installation.Free | No. of attendees _____ | |
| <input type="checkbox"/> 5:30 p.m. Beer, Wine & Cheese ReceptionFree | No. of attendees _____ | |
| <input type="checkbox"/> 6:00 p.m. *Kids Night Out (Ages 4-12)\$99.00 | No. of attendees _____ | |
| *Names and Ages of Children _____ | | |

Sunday, July 22nd

- | | |
|--|------------------------|
| <input type="checkbox"/> 8:00 a.m. Acute Pain Management | No. of attendees _____ |
|--|------------------------|

Raffle Tickets: 1 for \$5.00 – 10 for \$25.00 – 25 for \$50.00 No. of tickets _____ \$ _____

Registration + Events **TOTAL** \$ _____

Payment Method: Check: *Made payable to WCDDA* Visa MasterCard Amex

Credit Card No.: _____ Exp. Date: _____ CVV Code: _____

Signature: _____ Billing Zip Code: _____

Please mail or fax this form to the WCDDA:

1114 Kyle Wood Lane • Brandon, FL 33511
(813) 654-2500 Fax (813) 654-2505

About the Speaker

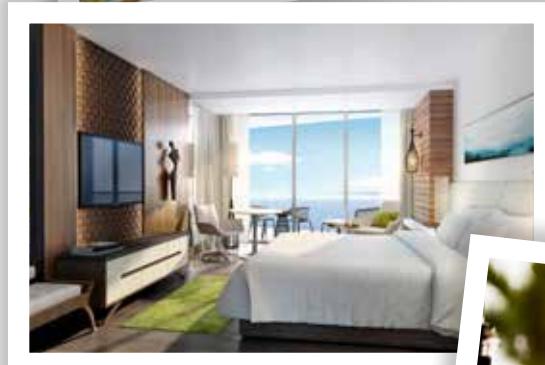
Pamela J. Sims, Pharm.D., Ph.D.

Pamela Sims, recently retired as Professor of Pharmacokinetics in the Department of Pharmaceutical, Social and Administrative Sciences at Samford University McWhorter School of Pharmacy (SUMSOP). Dr. Sims earned her B.S. Pharmacy from the University of Florida, her Doctor of Pharmacy degree from Mercer University and her Ph.D. in Pharmaceutical Sciences from the University of Colorado at Boulder (CU). Prior to Samford, she served on the faculty of Idaho State University (ISU).



Dr. Sims holds a faculty appointment in the University of Alabama at Birmingham (UAB) School of Dentistry Department of Pediatrics. She provides courses and lectures in Pharmacology to the Post-doctoral Dental Residents and a Part II Board Review in Pharmacology to fourth year Dental students. Dr. Sims also coordinates and teaches in a pharmacology course for the Nurse Anesthesia program at Samford University.

Dr. Sims publishes and lectures nationally and internationally concerning topics on Dental Pharmacology, Clinical Pharmacokinetics, Clinical Pharmacology and Pedagogy.



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