San Mateo County Dental Society | Every Member. Every Day. Winter 2024

MOUTHPIECE

smcds.com

IN THIS ISSUE

San Mateo County DENTAL SOCIETY

Member Events Calendar

See Education / Events > Calendar of Events at **www.smcds.com** for details and registration.

New / revised course info in **bold text**. Featured courses **highlighted**.

Date	Day	Type	Topic	Speaker/Contact	Location	Time
MARCH						
5	Tu	SCCE	Bay Area Aesthetic Masters Study Club	Ken Hovden, DDS / baaestheticmasters.com	SMCDS	6:30-8:30 P
12	Tu	G	SMCDS Leadership Meeting	President: Oanh T. Le, DDS	SMCDS	6:30-8 P
14	Th	PM	Your Blueprint for How to Use Remote Dental Professionals and How to Avoid Common Pitfalls	Christine Sison	**Webinar**	6:30-8 P
20	W	CO	College of San Mateo Spring Health Fair	Mike Aicardi 650.637.1121	CSM	10-2 P
22	F	RCE	OSHA-Bloodborne Pathogens & Hazard Comms	Leslie Canham, CDA, RDA	Webinar	8:15-10:15 A
22	F	RCE	Infection Control & CA Dental Practice Act	Leslie Canham, CDA, RDA	Webinar	10:30-3:00 P
25	M	RCE	BLS CPR Renewal Course	Stephen R. John, DDS	SMCDS	6:00-7:30 P
28	Th	SCCE	SMCDS Study Club Topic: ***Dental Implants: Treatment Planning and Execution from the View Point of a Prosthodontist and Oral Surgeon*** Sponsor Yaeger Dental	Parisa Shahi, DDS, FACP & Minerva Loi, DDS, MD	SMCDS	7:00-9:00 P
APRIL						
6	Sa	FMB	Shredathon: Document Shredding, eWaste, & Lead Foil	Jim Aicardi 650.637.1121	Sequoia HD Redwood City	9-12 P
9	Tu	G	SMCDS Executive Board Meeting	President: Oanh T. Le, DDS	N/A, Virtual	6:30-8:00 P
9	Tu	SCCE	Bay Area Aesthetic Masters Study Club	Ken Hovden, DDS / baaestheticmasters.com	SMCDS	6:30-8:30 P
18	Th	CE1	**SMCDS General Membership Meeting w/ MPDS** Topic: ***Occlusion in 2024***	Gary DeWood, DDS, MS	Hiller A.M. San Carlos	6:00-9:00 P
22	M	RCE	BLS CPR Renewal Course	Stephen R. John, DDS	SMCDS	6:00-7:30 P
MAY						
6	M	PG	Bay Area Well-Being Committee Meeting Confidential assistance for drug & alcohol abuse	BAWB - Michael Alvarez	SMCDS	7:00-9:00 P
7	Tu	G	SMCDS Leadership Meeting	President: Oanh T. Le, DDS	SMCDS	6:30-8 P
14	Tu	SCCE	Bay Area Aesthetic Masters	Ken Hovden, DDS / baaestheticmasters.com	SMCDS	6:30-8:30 P
16-18	Th-Sa	CE1/2	CDA Presents: Anaheim	Multiple	Convent Ctr	Multiple
20	M	RCE	BLS CPR Renewal Course	Richard A. Fagin, DDS	SMCDS	6-7:30 P
28	Tu	RCE	BLS CPR Renewal Course	Stephen R. John, DDS	SMCDS	6-7:30 P

Event Type	
AR	Allied Dental Relations
CE1	Core CE
CE2	20% CE
CO	Community Outreach
FMB	Free Member Benefit
G	Governance

Event Type	
H	Holiday
HWS	Hands-On Workshop
L	Leadership
NDS	New Dentists Social
PG	Personal Growth
PM	Practice Management

Event Type	
PM1/4	Pract Mgmt 1=New Dent 4=Life Active
PS	Professional Success
PS1/4	Prof Success 1=New Dent 4=Life Active
RCE	Required CE
S	Social Event
SCCE	Study Club CE

Photo by Debby Hudson on Unsplash

San Mateo County
DENTAL SOCIETY

MOUTHPIECE

Published Quarterly

Publisher
San Mateo County Dental Society
939 Laurel Street, Suite C
San Carlos, CA 94070
650.637.1121
info@smcds.com
www.smcds.com

Editors
Cathy Tao, DDS
Ben A. Yount, DDS
Nakia Brandt, Executive Director
nakia@smcds.com

Advertising Coordinator
Jim Aicardi, Operations Specialist
jim@smcds.com

Membership Specialist
Mike Aicardi, Membership Specialist
mike@smcds.com

Publisher
Marq
marq.com

facebook.com/SMCDS

x.com/SMDentalSociety

linkedin.com/company/smcds

Contents

Photo by Christian Grab on Unsplash

President's Message

By Oanh Le, DDS

Becoming your 2024 San Mateo Country Dental Society President is a culmination of the journey I began back in 2019 when I joined the SMCDS leadership council. My strategic approach was to thoroughly comprehend the inner workings of the Board and understanding the dynamics of the society so I could better serve our dental community in a thoughtful way. As your president, my commitment is to make decisions that prioritize the best interests of every dentist-member.

I have set enduring goals for our dental society, extending beyond my term. One significant objective is the creation of educational videos on proper oral hygiene instruction that will be shared through YouTube. Additionally, I am actively seeking exceptional speakers for our educational programs and workshops.

Given the shift in CDA Presents to an annual event in May 2024 in Anaheim, CA, SMCDS is gearing up to participate in the Bay Area Dental Expo on September 27 & 28, 2024. This two-day event promises dental innovation, pioneering speakers, and hands-on workshops. Stay tuned to SMCDS for details and updates.

As a general dentist, I share the constant pursuit of improving clinical skills. I engage in numerous advanced dental education courses focusing on dental sleep medicine and TMD treatment, as well as a Cohort VII in Leadership Institute at Kellogg school of Management. I aim to bring back these ideas to our dental society members, contributing to our collective improvement.

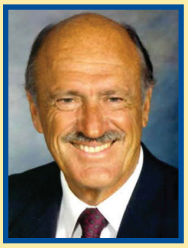
In my role as president, I encourage you to reach out to me and share your ideas for our dental society. Whether you have a specific speaker or topic request, I am eager to learn about what motivates you to enhance your experience as a SMCDS member. If you're considering joining the Board to contribute to shaping the future of our society, you may one day become the president. Together as SMCDS members, let's make our dental community thrive. Please feel free to connect with me if you have any ideas for improving our dental society--my door is always open and welcoming.

Thank you for your contribution and support.

Yours truly,

Oanh Le, DDS
Oanh.le.dds@gmail.com
415.519.9852

In Memoriam



Barrett D. Anderson, DDS, MSD – Orthodontist and SMCDS member of 65 years - passed away in December. Dr. Anderson graduated from Northwestern University in 1958 with a General Practice degree and 1958 with an Orthodontics degree. Dr. Anderson practiced 27 years in San Mateo on San Mateo Drive, culminating with his retirement in 1986. He served in Dental Society leadership as Dental Society President 1973-1974, Continuing Education committee member 1971, CDA delegate 1964, and chairman of the Dental Health & Education Committee 1962-1963. He was recipient of our Board of Directors Award 1962 and was editor of the newsletter for one year.

David D. Moore, Sr., DDS, FACD – Endodontist and SMCDS member of 61 years - passed away January 12. Dr. Moore graduated from College of Physicians and Surgeons in San Francisco (now known as Arthur A. Dugoni School of Dentistry at University of the Pacific) in 1960 with General Practice and Endodontics degrees. He practiced 54 years in San Mateo and retired in 2014. Dave served in SMCDS leadership and volunteer efforts for many decades: President 1989, Parliamentarian 2003-2018, Board of Directors Award 1991, Distinguished Service Award 1977 & 1985, Dental Care Committee 1969-1971, Member Directory Chair 2003-2012, San Mateo County Plan for Indigents 1964, and CDA Cares San Mateo Task Force 2016-2017. He also was a former President of the Northern California Association of Endodontists.

A colleague and fellow SMCDS member remembers Barrett and Dave
Dave and Barrett were pillars of the Dental Society. They were also the two people who had more to do with me becoming a dentist than anyone else. Dave was my dentist (on Picadilly Lane, off 41st Avenue) before he went into endo. That was when I was in high school and college (the 1960s). Barrett was my orthodontist, starting when I was in 7th grade -- I was one of his first patients and wore braces for four years. I was at his office every two or three weeks during those years. ***Don Hermansen, DDS***

Dave & Barrett at 11/1/22 Senior Society Luncheon

Richard C. Robert, Jr., DDS, MS – South San Francisco Oral & Maxillofacial Surgeon and SMCDS member of 46 years - passed away November 21. Dr. Robert graduated Emory University in 1971. He was a longtime UCSF School of Dentistry professor in the Department of Oral and Maxillofacial Surgery (OMFS).Dr. Robert's professional journey began working as an educator at Mount Zion Hospital in San Francisco, which later became part of UC San Francisco. During that time, he also cared for patients as a part-time private practitioner. Dr. Robert's career as an educator and clinician spanned 27 years, most recently contributing his expertise as a Health Sciences Clinic Professor-Fiscal Year at UCSF and an oral and maxillofacial surgeon at a Bay Area private practice.His impact at the School of Dentistry was profound, as he dedicated himself to guiding and mentoring residents specializing in oral and maxillofacial surgery as well as dental students. Dr. Robert brought particular expertise in anesthesia education and made significant contributions to instructional content in orthognathic surgery, surgical anatomy and emergency simulation.

Retirements

Stephen F. West, DDS – Daly City Orthodontist and SMCDS member of 5 years has retired.

Looking for space to host your next seminar, meeting, study club or clinical training?

Consider the *NEW* SMCDS Seminar Room

It's perfect for small or medium groups and provides an ideal teaching and learning environment, for less than you'd pay at a hotel or commercial conference site.
The SMCDS Seminar Room is available for rentals 8am to 10pm daily and offers...

Over 1000 square feet comfortably seating 35 classroom
Access to 85'' LED 4K UHD TV or projector screen
SMCDS Members get 20% off
Call 650.637.1121 or email info@smcds.com for rates and booking schedule

Located in beautiful Downtown San Carlos

San Mateo County DENTAL SOCIETY

SERVING DENTAL PRACTITIONERS ACROSS OUR COUNTY
939 Laurel St., Suite C • San Carlos • CA • 94070
650.637.1121 • fax 650.649.2980 • info@smcds.com

New Member Introductions

Please join the SMCDS Leadership in welcoming our newest members. Take a moment to introduce yourself when you see them at an upcoming General Membership meeting (they wear yellow daisy name tags). Our personal new member interview gives you a sneak-peek into who they are...

Daniel C. Kim, DMD
General Practice
675 Mariners Island Blvd., Ste. 105
San Mateo, CA 94404-1040
Univ. of PA - DDS - 2010

What brought you to San Mateo County?
I moved out of San Francisco and into San Mateo after my wife and I found out we were having our first child. We were attracted to the nice neighborhoods, good schools and pleasant weather. Now 2 children later, we can't see ourselves moving out of the area.

What is your favorite part of working in dentistry?
I love to meet new people and help them achieve their dental health goals.

What do you like to do in your spare time?
Most of my spare time is now occupied with my 2 young children and their respective activities but if I could get a few hours to myself, I'll try to sneak in a round of golf.

New Member Celebration

Welcome!

Join us in celebrating **4** new members from November 2023 to February 2024, contributing to the voice that is SMCDS - **657** strong...

Daniel C. Kim, DMD
Univ. of PA - 2010 - GP

Krina A. Shah, DDS
UOP - 2023 - GP

Alec C. Tai, DDS
Touro College of Dental Medicine - 2020 - GP

Anne Wang, DMD
Univ. of Pittsburgh - 2017 - GP

Leadership Corner

By Cathy Tao, DDS

Having been part of the San Mateo County Dental Society leadership council for the past few years, I was pleasantly surprised to receive an email from Nakia inviting me to be one of the five delegates representing members of the SMCDS at the 2023 CDA House of Delegates. I swiftly accepted the invitation and eagerly awaited information about what to anticipate at my very first CDA House of Delegates.

The CDA House of Delegates meets annually, and meetings consist of sessions over the course of two days to allow delegates to debate resolutions, propose amendments, and vote to approve or disapprove resolutions. In addition to deliberations, this meeting also serves as an opportunity to welcome the incoming president and cabinet members for the following year. Incoming CDA President Dr. Carliza Marcos was a former president at San Mateo County Dental Society and currently maintains an active private practice in San Carlos with her brother. I was very touched by Dr. Marcos' inaugural speech and was honored to witness the ceremony.

The most essential aspect of the annual CDA House of Delegates is the deliberation process of the proposed resolutions. Resolutions shape the direction of dental policy and dental practice, as well as help formulate a unified voice representing dentists who are practicing in the state of California. Now, I will highlight some of the resolutions from this year and provide an overview of them.

Resolution #6 proposed a modification to the CDA councils: to eliminate the judicial council and peer review program, and simultaneously continue the suspension of funding for the council on membership. To fully grasp the origins of this resolution, it is necessary to discuss historical events leading up to the resolution. In June 2020, early in the COVID-19 pandemic era, the board of directors recommended measures to reduce expenses including the elimination of the peer review program and three councils (i.e., council on peer review, judicial council, and council on membership). Due to this significant change, the recommendations were met with inputs from the component leaders, resulting in an amendment: changing the recommendation from "eliminate" to "suspend funding" during an evaluation period. Thereafter, the board of directors was able to manage the responsibility of the judicial council and the council on membership, and noted that only a few members utilized the peer review program. Accordingly,

the house was asked to approve changes to the CDA bylaws to reflect the elimination of the judicial council and peer review program at this year's CDA House of Delegates. Unsurprisingly, this resolution was heavily debated on the floor, with delegates requesting a cost analysis of maintaining the peer review program alongside figures highlighting its utilization and outcomes. Many of the delegates also stated that they considered the peer review program to be an essential aspect of their membership benefits and that the elimination of the program would result in a loss of trust from organization members. I agree that the peer review program is an important member benefit and the decision to modify the program should be carefully evaluated. Additional studies or alternatives should be considered rather than eliminating the program altogether. The argument that the utilization of the peer review program is low and should thus be eliminated is not a compelling reason. Given the litigious environment today, we should be glad that the utilization rate of the peer review program is low; as a practitioner, even if one tries his or her best to practice at the highest standard, there is no guarantee that he or she will never need to utilize the program. If I were to utilize such a program during an arbitration process, I would much rather have peers who understand the practices of dentistry and the intricacy of patient care. Nevertheless, the costs to maintain the peer review program (i.e., insurance) are quite astounding. After much debate, the CDA House of Delegates disapproved the elimination of the peer review program and instead approved a modification to resolution #6. This allows for the continued suspension of funding for the peer review program and judicial council until 2025. Additionally, the CDA House of Delegates requested an appropriate CDA entity to evaluate options to maintain a peer review program and judicial council. Lastly, a report is to be provided at the 2024 House of Delegates with final recommendations to the 2025 delegates. The modified resolution granted time for further evaluations, and there will hopefully be a way to continue the peer review program in the future.

Another interesting resolution that I would like to highlight is resolution #17, which pertains to dental plan payments. Currently, a number of dental plans automatically sign-up dentists to receive dental plan payments with virtual credit cards, which incur significant processing fees. Under federal law, dental plans are required to offer alternative payment options such as EFT or hard copy checks. Recently, the state of Illinois took a step further and passed legislation prohibiting the charging of fees with the virtual credit card option. Resolution #17 aims to tackle this issue by recommending that the CDA encourage dental plans to use default payment methods that do not have mandatory processing fees and make the virtual credit card option opt-in only (e.g., if the dentist were to elect to have the virtual credit card option as the preferred payment method). The CDA House of Delegates voted yes in favor of the resolution and I believe that it is a step in the right direction. However, I would prefer stronger language in the resolution to require written signatures from dentists and address this issue with legislation explicitly prohibiting the charging of fees given that there is already a precedent set by the state of Illinois. If the CDA is already going to spend resources on this issue, it would benefit members the most by having a solution with stronger language to prevent dental insurance plans from developing workarounds such as cumbersome recurring opt-out procedures to the virtual credit card option to shift the burden to practicing dentists.

Finally, I would like to highlight resolution #18 on ordering home sleep apnea tests. Obstructive sleep apnea (OSA) is a common, yet often under-diagnosed disorder. Our long-term relationships with patients offer unique opportunities for dental professionals to be part of the team diagnosing and treating OSA. At the 2022 House of Delegates, a similar resolution in support of dentists ordering and providing home sleep apnea tests was considered but not adopted due to concerns associated with the scope of practice and

potential liability. Resolution #18 this year aims to provide additional clarification to address these concerns. Resolution #18 stated that CDA supports dentists ordering and providing home sleep apnea tests as long as results were being interpreted, a diagnosis was made, and a treatment was prescribed by a physician with proper sleep medicine training. The CDA House of Delegates voted yes on this resolution and confirmed CDA's support for dentists ordering and providing home sleep apnea tests with the involvement of a physician with sleep medicine training. The debates on the floor demonstrated that although this issue highlighted a range of opinions, the approval of the resolution showed the CDA's support for dentists being part of the OSA treatment process. Furthermore, the resolution urged the CDA to seek confirmation for the appropriateness of dentists performing oral appliance titration when providing home sleep apnea tests to protect and support members if liability issues were to arise. Overall, the approval of the resolution is an important milestone given that a similar resolution from the 2022 CDA House of Delegates meeting was not adopted. Related discussions will continue, and the scope of the practices will continue to evolve and be refined.

It was drizzling during the car ride back from the CDA House of Delegates meeting in Sacramento to my home in San Mateo. Although my thoughts had abruptly switched from learning the ropes during the weekend-long meeting to figuring out my toddler's schedule for the following week, I had several quiet moments during the car ride to reflect on my very first CDA House of Delegates meeting. I was particularly inspired and touched by the incoming President Dr. Marcos' speech on her journey becoming the president of the organization. I was also impressed by the openness on the house floor to debate, present, and accept various opinions on countless issues involving dentistry. Although the debates were heated at times, the eventual approval (or disapproval) of proposed resolutions represented a unifying voice of the member dentists practicing in California. I look forward to seeing how the approved resolutions will shape policies and strategies in the coming years, and I sincerely hope that we will develop creative solutions for maintaining important member benefits such as the peer review program.

Let's stay tuned for next year's CDA House of Delegates meeting in downtown Los Angeles!

Thank You to Our Volunteer CPR Instructors

We could not train over 200 members and staff a year without them

Richard A. Fagin, DDS (Lead Instructor)
Stephen R. John, DDS (Lead Instructor)
Arsalan Ahani, DDS, MD
Lynne Baldassari-Cruz, DDS
John A. Boghossian, DDS
William Bruce Bohannan, DDS, MD
Minerva Loi, DDS, MD
William T. Meyer, DDS
Tal Rapoport, DMD
Lori Taylor, RDH
Ngoc-Nhung Tran, DMD, MS
Jessy Tseng, DDS

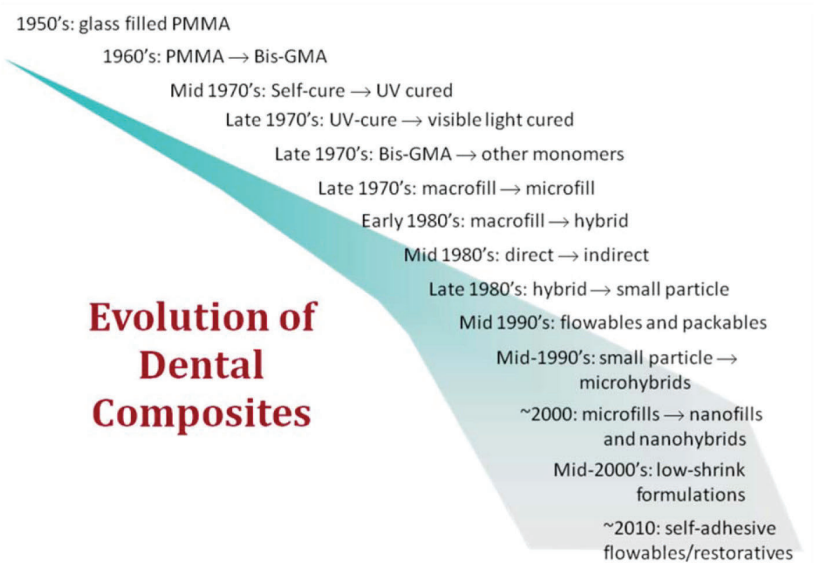


Fig. 1 – A perspective on the evolution of dental composites.

1. Introduction

The composition of resin-based dental composites has evolved significantly since the materials were first introduced to dentistry more than 50 years ago (Fig. 1). Until recently, the most important changes have involved the reinforcing filler, which has been purposely reduced in size to produce materials that are more easily and effectively polished and demonstrate greater wear resistance. The latter was especially necessary for materials used in posterior applications, but the former has been important for restorations in all areas of the mouth. Current changes are more focused on the polymeric matrix of the material, principally to develop systems with reduced polymerization shrinkage, and perhaps more importantly, reduced polymerization shrinkage stress, and to make them self adhesive to tooth structure. Several articles recently have reviewed the current technology of dental composites [1,2] and described future developments, such as self-repairing and stimuli-responsive materials [3]. The current review will provide a brief historical perspective on dental resin composites to serve as a framework for a treatise on the current state of the art, primarily concentrating on work published in the past 5 years.

Resin composites are used for a variety of applications in dentistry, including but not limited to restorative materials, cavity liners, pit and fissure sealants, cores and buildups, inlays, onlays, crowns, provisional restorations, cements for single or multiple tooth prostheses and orthodontic devices, endodontic sealers, and root canal posts. It is likely that the use of these materials will continue to grow both in frequency and application due to their versatility. The rapidity by which the materials have evolved suggests a constantly changing state of the art.

The state of the art is defined as "the level of development (as of a device, procedure, process, technique, or science) reached at any particular time usually as a result of modern methods." (Mirriam Webster Dictionary) When discussing patentable ideas, this has been more precisely defined (European Patent Convention) as "[the] state of the art shall be held to comprise everything made available to the public by means of a written or oral description, by use, or in any other way, before the date of filing of the European patent application." Thus an idea may be based on prior art, but only is considered to be new if it does not form part of the current state of the art. Thus, the state of the art is constantly in flux. Further, the state of the art is usually distinguishable from what might be termed the "standard of care," or the material/technique that generally has been adopted by the profession for a specific purpose.

This difference between state of the art and standard of care is made more evident when one examines the development of dental composites and follows the path of a new material (Fig. 2). When a new dental composite material is conceived by an individual or a company, a patent application is typically filed to protect the concept. At the same time, or at some time in the future, the concept is reduced to practice, providing a material that has application for a specific purpose or set of purposes. The material comprises a portion of the current state of the art by virtue of its publication or presentation to the profession. However, the material must proceed through a more elaborate path to be considered a part of the current standard of care. In the ideal process, this requires a demonstration that the material is clinically efficacious. In other words, it must be shown to be used successfully in a controlled situation, such as a clinical trial. However, as has been seen many times, there is no guarantee that such a material will be shown also to be clinically effective when provided to all general practitioners for general use.

A material cannot achieve the level of standard of care, as defined by "the degree of care or competence that one is expected to exercise in a particular circumstance or role,"

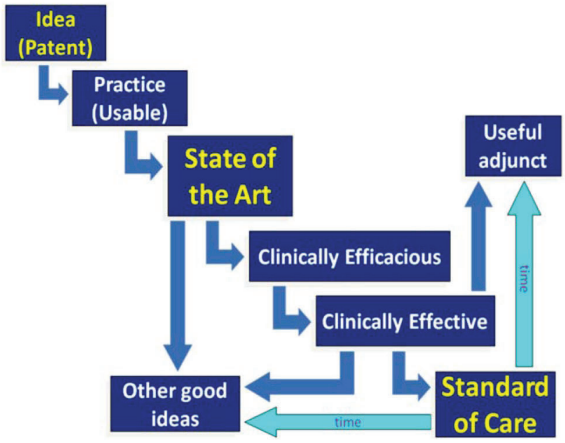


Fig. 2 – The pathway through the state of the art toward building the standard of care.

(Merriam-Webster's Dictionary of Law) until it has been broadly accepted by the profession for its intended purpose(s). If efficacy and/or effectiveness cannot be proven for the new composite, then it may simply fade into history as many "other good ideas." If the material does prove to be effective, it may still not become the standard of care, perhaps because there are better options available that are easier to use, of lower cost, or have some other benefit. The material may simply then become a useful adjunct to the current standard of care. The standard of care is also fluid, and a material that was the standard may simply with time relapse to becoming a useful adjunct or just another good idea. Thus, the state of the art and the standard of care are likely to be very different. This is emphasized by the fact that the time from which a new idea/practice option is introduced to when it becomes accepted by the majority of dental practitioners may be more than 10 years [4].

Describing the state of the art in dental composites requires a discussion of the formulation of current materials and the potential for future developments, the properties and limitations of the currently marketed products, and the important considerations for their clinical use. This manuscript will discuss each of these issues.

2. Dental composite formulation

2.1. *Types of dental composites and their development*

Dental composites can be distinguished by differences in formulation tailored to their particular requirements as restoratives, sealants, cements, provisional materials, etc. These materials are similar in that they are all composed of a polymeric matrix, typically a dimethacrylate, reinforcing fillers, typically made from radiopaque glass, a silane coupling agent for binding the filler to the matrix, and chemicals that promote or modulate the polymerization reaction. The many types of fillers in use recently have been reviewed [1]. The predominant base monomer used in commercial dental composites has been bis-GMA, which due to its high viscosity is mixed with other dimethacrylates, such as TEGDMA, UDMA or other monomers [5]. Some of these monomers, or modified versions of them, also serve as base monomers in many commercial materials. While there have been attempts to develop different polymerization promoting systems, most composites are light-activated, either as the sole polymerization initiator or in a dual cure formulation containing a chemically cured component. The most common photoinitiator system is camphoroquinone, accelerated by a tertiary amine, typically an aromatic one [6]. Some commercial formulations have included other photoinitiators, such as PPD (1-phenyl-1,2-propanedione) [7], Lucirin TPO (monoacylphosphine oxide), and Irgacure 819 (bisacylphosphine oxide) [8], which are less yellow than CQ and thus potentially more color stable. Additional photoinitiators, such as OPPI (p-octyloxyphenyl-phenyl iodonium hexafluoroantimonate) have been proposed based on encouraging experimental results [9].

The different types of composite materials are distinguished by their consistency. The universal restorative capable of being placed with a syringe or instrument may have a variety of consistencies depending upon its formulation. These materials are distinguished from the flowable composites, designed to be dispensed from very fine bore syringes into tight spaces for enhanced adaptation, and from the packable composites, designed to provide significant resistance to an amalgam condenser or other instrument in order to avoid slumping and to enhance the formation of tight interproximal contacts. Flowable composites are typically produced with a lower viscosity by reducing the filler content of the mixture, or by adding other modifying agents, such as surfactants, which enhance the fluidity while avoiding a large reduction in filler content that would significantly reduce mechanical properties and increase shrinkage [10]. Packable composites achieve their thicker consistency through modification of the filler size distributions or through the addition of other types of particles, such as fibers, but generally not by increasing overall filler level [11].

Within each type of composite, the materials are further distinguished by the characteristics of their reinforcing fillers, and in particular their size (Fig. 3). Conventional dental composites had average particle sizes that far exceeded 1 μm, and typically had fillers close to or exceeding the diameter of a human hair (~50 μm). These "macrofill" materials were very strong, but difficult to polish and impossible to retain surface smoothness. To address the important issue of long-term esthetics, manufacturers began to formulate "microfill" composites, admittedly inappropriately named at the time, but probably done to emphasize the fact that the particles were "microscopic". In truth, these materials were truly nanocomposites, as the average size of the amorphous spherical silica reinforcing particles was approximately 40 nm. The field of nanotechnology is defined at the nanoscale, and includes the 1–100 nm size range. Thus, the original "microfills" would have more accurately been called "nanofills", but likely were not due to the lack of recognition of the concept of "nano" at the time. The filler level in these materials was low, but could be increased by incorporating highly filled, pre-polymerized resin fillers (PPRF) within the matrix to which additional "microfill" particles were added.

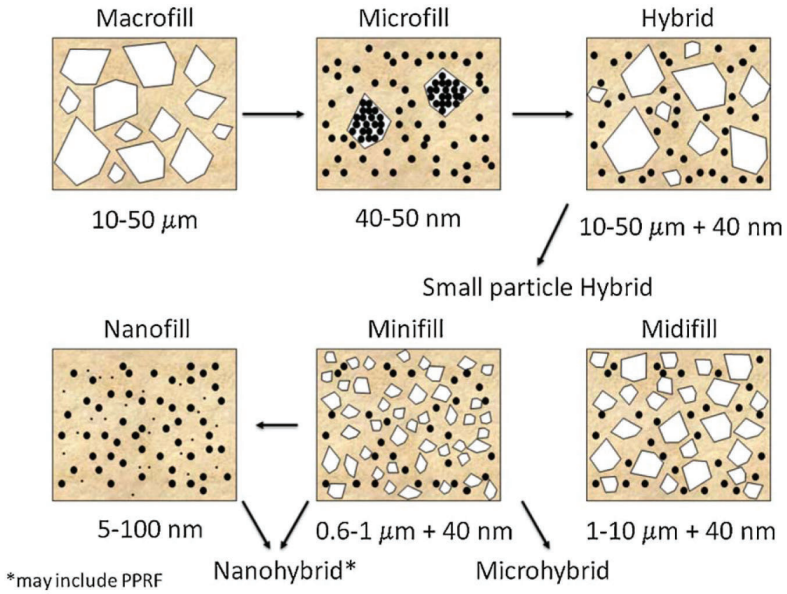


Fig. 3 – The chronological development of the state of the art of dental composite formulations based on filler particle modifications.

The "microfill composites were polishable but generally weak due to their relatively low filler content, and a compromise was needed to produce adequate strength with enhanced polishability and esthetics. Therefore, the particle size of the conventional composites was reduced through further grinding to produce what was ultimately called "small particle hybrid" composites. These were further distinguished as "midifills," with average particle sizes slightly greater than 1 μm but also containing a portion of the 40 nm-sized fumed silica "microfillers." Further refinements in the particle size through enhanced milling and grinding techniques resulted in composites with particles that were sub-micron, typically averaging about 0.4–1.0 μm, which initially were called "minifills" [12] and ultimately came to be referred to as "microhybrids." These materials are generally considered to be universal composites as they can be used for most anterior and posterior applications based on their combination of strength and polishability. The most recent innovation has been the development of the "nanofill" composites, containing only nanoscale particles. Most manufacturers have modified the formulations of their microhybrids to include more nanoparticles, and possibly pre-polymerized resin fillers, similar to those found in the microfill composites, and have named this group "nanohybrids." In general, it is difficult to distinguish nanohybrids from microhybrids. Their properties, such as flexure strength and modulus, tend to be similar, with the nanohybrids as a group being in the lower range of the microhybrids, and both being greater than microfills [13,14]. While some have shown evidence for reduced stability during water storage for nano-hybrid or nano-fill composites vs. microhybrids [15], others have shown an opposite trend [16] or fairly similar susceptibility to aging [17]. It has been suggested that the slightly lower properties of some nanohybrid composites may be due to the incorporation of pre-polymerized resin fillers [18]. Regarding clinical evaluations, two recent studies over 2 and 4 years, respectively, showed similar excellent results in class II cavities for a nanofill vs. a microhybrid [19] and nanohybrid vs. a microhybrid, with slight evidence for better marginal integrity for the micro-hybrid in the latter study [20].

2.2. *Composition of current composites*

The state of the art of the composition of dental composites has been changing rapidly in the past few years. The nanofill and nanohybrid materials represent the state of the art in terms of filler formulation [1,2]. Comprehensive electron microscopy and elemental analysis has been performed on many current composites to verify the significant differences in filler composition, particle size and shape [21]. New options for reinforcing fillers generally have focused on nano-sized materials and hybrid organic-inorganic fillers [1]. Years ago, novel organically modified ceramics (ORMOCERS) were developed [22] and have been used in commercial products. However, significant progress has been made in the development of new monomers for composite formulations with reduced polymerization shrinkage or shrinkage stress, as well as those with self-adhesive properties.

The epoxy-based silorane system used in Filtek Silorane LS (3 M ESPE) [23], provides verified lower shrinkage than typical dimethacrylate-based resins, likely due to the epoxide curing reaction that involves the opening of an oxirane ring. This commercial composite has been shown to have good mechanical properties [15,24]. In one clinical study, the marginal quality of the silorane composite was shown to be somewhat inferior to that of a nanohybrid composite [25]. Perhaps this is not surprising in that contraction stress, and not contraction itself, is considered to be the

more important phenomena, and it has been shown that Silorane LS does not produce lower contraction stress than other composites [26]. Others have experimented with other monomers, such as tetraoxaspiroundecane (TOSU), added to silorane systems and showed stress reduction, but the reduced stress may also be due in part to a reduction in mechanical properties [27].

Other monomers with increased molecular weight have been developed for composites with reduced shrinkage. The modified urethane dimethacrylate resin DX511 from Dupont found in Kalore (GC) is said to reduce shrinkage due to its relatively high molecular weight compared with bis-GMA and traditional UDMA (895 g/mole vs. 512 g/mole vs. 471 g/mole, respectively). The urethane monomer TCD-DI-HEA found in Venus Diamond (Kulzer) has been shown to produce lower polymerization contraction stress than other composites marketed as low-shrinking [26]. The dimer acid monomers used in N'Durance (Septodont) are also of relatively high molecular weight, i.e. 673–849 g/mole, and have been shown to have high conversion of carbon double bonds while undergoing lower polymerization shrinkage than bis-GMA-based systems [28,29].

The latest trend has been toward the development of flowable composites containing adhesive monomers, such as Vertise Flow (Kerr) and Fusio Liquid Dentin (Pentron Clinical). These formulations are based on traditional methacrylate systems, but incorporating acidic monomers typically found in dentin bonding agents, such as glycerolphosphate dimethacrylate (GPDM) in Vertise Flow, which may be capable of generating adhesion through mechanical and possibly chemical interactions with tooth structure. These materials are currently recommended for liners and small restorations, and are serving as the entry point for universal self-adhesive composites.

2.3. *Future developments*

A recent review noted that efforts to modify fillers have been aimed at improving the properties of composites by the addition of polymer nonofibers, glass fibers, and titania nanoparticles [2]. There is also very interesting work incorporating silsesquioxane nanocomposites which are essentially an organic–inorganic hybrid molecule that reduce shrinkage, but also reduce mechanical properties if used in too high of a concentration [30]. Perhaps the most promising work in composites with modified fillers for both enhanced mechanical properties and remineralizing potential by virtue of calcium and phosphate release has been the work with fused silica whiskers and dicalcium or tetracalcium phosphate nanoparticles [31,32]. These composites may be stronger and tougher, but the optical properties are not ideal and their opacity requires them to be self-cured or heat-processed at this point. Calcium fluoride containing fillers also have been added to filled dental resins and have shown high fluoride release and good mechanical properties [33]. There are other monomers that are in various stages of development for potential use in dental composites, such as the (meth)acrylate vinyl ester hybrid polymerization system which exhibits phase separation during curing [34], thiolene monomers [35], multimethacrylate derivatives of bile acids, and others [36–39]. It is expected that universal restorative materials based on the self-adhesive monomers being used or proposed in the flowable systems also will be forthcoming.

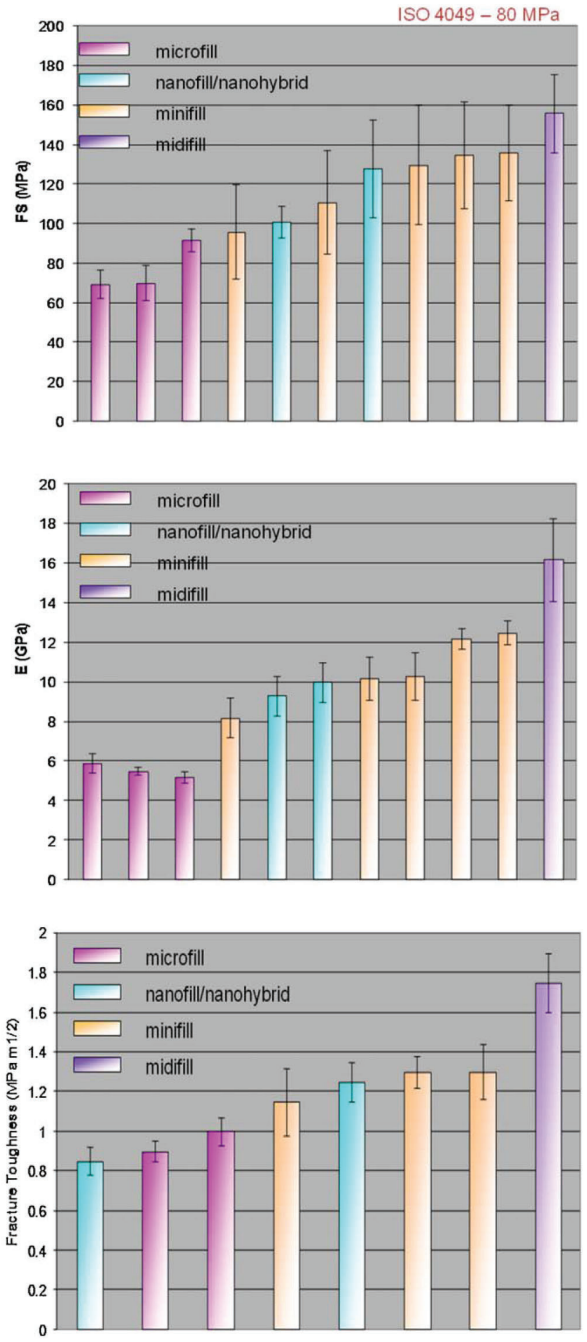
Other areas of development have included the incorporation of anti-bacterial agents and remineralizing agents into composites. Examples of compounds that have been added to resin composites to kill bacteria or inhibit biofilm formation include fluoride [32,33], chlorhexidine [40], zinc oxide nanoparticles [41], quaternary ammonium polyethyleneimine nanoparticles [42], and MDPB monomer [43]. The effectiveness of the various fluoride-releasing restorative materials have been critically reviewed, and it was concluded that the clinical results are not conclusive for dental restorative materials, including composites [44]. Remineralization may be promoted by the slow release of calcium and phosphate ions followed by the precipitation of new calcium-phosphate mineral [32,33]. Years ago a material was developed which was purported to exhibit "smart release" of these ions as a result of an acidic challenge, as occurs during caries formation. This material, Ariston pHc, was not ultimately successful, in large part due to the fact that it absorbed too much water which affected its dimension and properties. But the idea of a "smart" material that reacts to its environment to release remineralizing ions or anti-microbial agents is attractive and still a focal point of research.

3. Properties of dental composites

3.1. *Current materials*

Current dental composites have adequate mechanical properties for use in all areas of the mouth. But concern still exists when the materials are placed in high stress situations, especially in patients with bruxing or parafunctional habits. The concern here is for fracture of the restoration as well as wear. Wear is considered to be a lesser problem for current materials as compared to those that were the standard of care a decade ago, in large part due to refinement in the size of the reinforcing fillers which significantly reduced the magnitude of abrasive wear. However, when placed in large preparations, perhaps on several teeth in a quadrant, and when used to replace cusps, the wear of these materials still warrants attention [20].

Nearly exhaustive datasets on the mechanical properties of dental composites have been presented in recent years, and these informative articles can be consulted for more specific information [13–15]. In the author's lab, various brands of materials have been evaluated (Figs. 4–6). The data provides an opportunity for an overall view of the relative magnitude of the properties for the different composites types, and generally show that mechanical properties are mostly related to filler content, with the composites having the most filler being the strongest (Fig. 4), stiffest (Fig. 5), and toughest (Fig. 6). This is not surprising, as this trend is predicted by the rule of mixtures for composite materials. However, it is instructive to compare the mechanical properties of dental composites to other dental restorative materials. In general, dental composites have similar flexure strength, fracture toughness and tensile strength as porcelain and amalgam, and are superior to



Figs. 4–6 – Comparison of the flexure strength, flexure modulus and fracture toughness of representative commercial composites.

glass ionomers. Perhaps the property in which dental composite is most conspicuously deficient in comparison to amalgam is elastic modulus, where composite is typically several times lower. This lower modulus may allow enhanced deformation and dimensional change on occlusal surfaces under high stress which lead to defect formation or enhanced wear due to increased surface contact.

3.2. *Future enhancements*

Improvements in the properties of dental resin composites are constantly being sought. The target mechanical and physical properties are difficult to define because there is currently little correlation between the properties of composites and their clinical performance. However, given that secondary caries and fracture are the two primary reasons given for replacement of dental composites [45], it is warranted to continue to pursue improvements in strength and toughness, as well as shrinkage and its accompanying stress. The target shrinkage level is likely somewhere greater than zero to allow room for expansion due to water sorption. Current resin systems are not completely hydrophobic. The extent of water uptake is dependent upon the monomer formulation, and a recent study has shown lower water uptake for silorane-based systems [46]. But as new formulations are designed to be self-adhesive, they will most likely be even more hydrophilic than current resins. Thus, a shrinkage level between 0.5% and 1.0% by volume would seem to be a reasonable target, and some systems already are at or near this level.

Regarding strength and toughness, current materials are nearly as strong (flexure, compression and tension) as dental amalgams and porcelain, but less strong than "high-strength" ceramic systems and casting alloys. This is significant, in that casting alloys for PFMs and the high strength ceramics, such as those used as substructures for dental restorations, typically do not fail by bulk fracture. Rather, the veneering porcelain chips or delaminates [47], which is consistent with its generally low strength. Thus, because amalgams and porcelains do fracture, and they have similar strength as dental composite, it is likely that flexure strength of several hundred MPa, equivalent to that of the high strength ceramics, would be most ideal. This is not an easy challenge, and even the inclusion of high strength whiskers into heat-cured dental resins has only increased the flexure strength of highly filled composites to a little over 200 MPa [48]. Fracture toughness is another important property, and may correlate with intraoral chipping of surfaces and margins [49,50]. The best current composites have fracture toughness below 2.0 MPa $m^{1/2}$, which is similar to amalgam and better than porcelain. However, higher strength ceramics have fracture toughness that are 2–3× as great, and this may be a reasonable target for dental composites based on the statements made above with respect to strength and fracture. Again, fiber or whisker reinforcement has produced very significant enhancements in toughness [48], but not to the range of high toughness ceramics or casting alloys, and this may be what is required to render the materials essentially fracture resistant under all oral conditions.

4. Important clinical considerations

4.1. *Placing dental composites*

The primary reason for the clinical replacement of dental composites is secondary caries, followed by fracture [45]. The former is proposed to be related to the polymerization shrinkage and shrinkage stress created on the interfacial bond, as

well as the durability of this bond, and on the quality of the placement of the restoration. The latter is due to limitations of the mechanical properties of the materials, as well as to issues related to cavity design, amount and quality of supportive tooth structure, and the specific occlusion.

Layering is the standard of care for placement of dental composites in cavity preparations exceeding 2 mm. This procedure is based on the desire to ensure as complete a cure as possible by virtue of sufficient exposure of the entire increment to the curing light, as well as to reduce the volume of contracting material to mitigate to some extent polymerization shrinkage stresses. Various techniques have been proposed in the literature [51,52] and many variations on the theme can be expected. The bulk curing of composite, considering that ample light energy was able to be transferred to the material, has been suggested for large preparations, but the evidence seems largely against this approach due to concerns over elevated stress generation and tooth deformation [53]. However, it is important to note that little if any strong clinical data exists to support one particular composite application method over another. In fact, though polymerization shrinkage and its associated stress are presumed to affect marginal integrity and clinical performance, there is not definitive clinical data to support this hypothesis [45,54].

Due to concerns over post-operative sensitivity and achieving and maintaining adhesion to dentin, dental composite restorations are often lined with glass ionomers or flowable composites. Clinical evidence for enhanced longevity of class II composites with resin modified glass ionomer liners vs. adhesive bonding exists [55], but there also is evidence for enhanced performance of class II composite restorations relying solely on adhesive bonding in the proximal area [56]. A recent study conducted in a university setting showed no difference in performance for lined vs. unlined posterior composites, though the authors noted that results in general practice may not be predicted by this clinical evaluation model [57]. It is fair to say that at this time, both methods for restoring class II composites represent the standard of care.

The other important aspect with respect to placement of dental composites relates to their handling characteristics. This is evident in the way in which the practitioner has embraced flowable composites, and the number of publications assessing handling properties of all types of composites, such as rheology [58–60], slumping [61–63], and stickiness [64,65], and the development of test methods to assess these subjective qualities. The viscosity is a property that is most important for flowable composites, and studies show that viscosity varies greatly among brands, without a correlation to filler particle shape and only a weak correlation to filler volume that does not hold within a specific type of composite, i.e. within flowables [58,60]. However, composites are pseudoplastic, or shear-thinning materials, meaning that they become more fluid when placed under greater shearing forces, such as during placement with a syringe. The slumping resistance of the composite is related to viscosity, but is more complex. A slumping resistance index (SRI) has been estimated using an imprint method for three commercial composites and shown to be related to shear flow resistance, with a nanofill composite having a higher SRI than two microhybrids [61]. In another study, the slumping resistance of flowable composites also was shown to be related to the complex viscosity, as one might expect [63]. Significant variation in slumping tendency has been shown for four commercial materials by measuring of the deformation of an uncured composite cast made from an impression [62]. Another subjective characteristic of composites is stickiness. An attempt has been made to quantitate stickiness by measuring the force exerted against a plunger as it is removed from a composite mass [64]. Three commercial composites have been tested by placing steel, dentin and bonded dentin to the bottom of the probe to measure stickiness to these various surfaces. [65]. Stickiness was highest against dentin and lowest on bonded dentin, and tended to increase as the temperature was increased from 23 to 37 °C.

4.2. *Finishing, polishing and repairing*

The finish and polish attainable on dental resin composites is to some extent a function of their composition, with some materials demonstrating a preference for certain polishing methods [66–68]. In the past, fine particle disks provided the best overall surface finish and gloss for most composites, but more recent studies suggest that while the use of successively finer disks are still very effective, recently developed two- and one-step systems may be slightly better at producing the highest gloss for most types of dental composite [66,69]. Most clinicians will admit that the high initial shine may be important to the patient, especially for the anterior teeth, but the main concern of the dentist is the surface quality after months and years of service. One guideline suggests that a gloss level of 40% is the minimum acceptable clinically [69]. All composites will roughen with time as the surface is exposed to the erosive and abrasive effects of food, drink, and other things. Studies examining the polish retention show a difference in the maintenance of surface quality based on the filler particle size, with roughness and gloss tending to increase with particle size, though this is dependent upon brushing load and time [70,71]. Some composites, specifically nanofills and microfills, may show a reduction in gloss during toothbrushing experiments, while microhybrid composites typically show an increase in gloss after the initial stages of brushing, followed by maintenance of a steady state or slight reduction [72]. This differs from surface roughness, which typically increases for all types of composites during brushing, but to different extents. The differences are most likely significant in terms of surface shine, and less important from the standpoint of plaque retention. When exposed to toothbrushing in experiments, most nano-hybrid and micro-fill composites maintain a surface roughness below 0.2 μm, which is considered to be the threshold for plaque retention [73]. Further, though there is a strong correlation between surface roughness and surface gloss, gloss has been shown to be the more sensitive characteristic for measuring the retention of surface quality after brushing [70,71].

The repair of resin dental composites is an important feature, and one that has only recently being investigated through formal studies. The limited body of work in this area was the subject of a recent review [74]. While the review notes that there is a deficiency in randomized controlled

trials of composite repair, it does point out that recent clinical studies of 2–3-year duration have shown good outcomes for repairs or resealing of marginal defects in composites [75–77]. The most recent article describes a 7-year recall and reinforces the success of this conservative intervention strategy [78]. In a recent survey of general practitioners, one half stated that they would repair a composite restoration with a defective margin in enamel, though most would replace the restoration if the defective margin was on dentin [79]. These results suggest that repair of composite restorations with defective margins in enamel is considered state of the art, and that it may be becoming the standard of care.

The conservative nature of repairing chips, defects, stains, etc. has long been recognized as desirable, but in some cases has been considered to be a compromise in terms of the overall quality and longevity of the restoration. The repair method has improved little over the years, being predominantly an exercise in attaining strong mechanical adhesion to the aged surface. Attempts to expose and bond with residual methacrylate groups have been presented, but there is little evidence that this aspect of bonding is significant or superior to mechanical adhesion. Mechanical bonding is achieved by roughening the intra-oral surface through air abrasion, phosphoric acid application to clean the surface of debris and etch any available enamel, application of a thin layer of unfilled resin for enhanced adaptation to the roughened surface, followed by placement of the resin composite of choice. Recent studies also suggest that air abrasion combined with silica coating (and possibly silane) is a very effective preparation method for composite repair [80,81]. The use of intermediary unfilled resins that are more hydrophobic tend to show superior bond stability [82]. Efforts to enhance the bond through hydrofluoric acid application to "etch" fillers or applying silane coupling agents to bond to exposed fillers have largely been shown to be ineffective in laboratory studies, and are thus not recognized as the standard of care [80].

4.3. *Clinical outcomes*

The current status of dental composites as anterior restoratives is the material of choice for most restorations. Clinical studies show good outcomes with few limitations, aside from some concerns over marginal staining (more a problem of the adhesive than the material), discoloration, and edge chipping in high stress situations. In anterior teeth, and especially for class V lesions, composite is the clear material of choice among general practitioners [83]. As a posterior restorative, resin composite is now the primary choice in many countries. Clinical studies show good performance, with some studies providing outcomes from 10 to 20 years showing relatively low annual failure rates of approximately 2% [84–86]. The overall consensus seems to be that composite has a slightly shorter longevity than dental amalgam when compared in the same study [87–89]. However, a recent study challenges this assumption in a 12-year evaluation of composites and amalgam, in which large composites showed a higher survival than amalgam in a low caries risk group, and the two materials showed equivalent survival in a high caries risk group [90]. Not surprising, both materials show higher failure rates in high caries risk patients.

5. Final thoughts and perspectives

Dental composites are versatile materials whose usage has continued to grow since their introduction to the profession over 50 years ago. The expanded use of these materials in a wide range of applications puts great demands on their properties and performance. This demand requires an ongoing investment in research and development and is evidenced by continuous introduction of new products to the market. While the state of the art of dental composites is very fluid and represents an abundance of options for the clinician, the standard of care is in general much more stable. This is logical in that the savvy practitioner likely demands some level of clinical proof before choosing to make a significant change in their practice behavior. This should be true for all dental restorative selections. Expectations are that further development of these materials will include enhancements in strength and fracture resistance, reductions in polymerization shrinkage and its associated stress, adhesion to tooth surfaces without special surface preparations or the application of separate bonding resins, the inclusion of antibacterial agents and/or compounds capable of enhancing their remineralizing potential, and designed responsiveness to the changing oral environment.

REFERENCES

[1] Klapdohr S, Moszner N. New inorganic components for dental filling composites. Monatsh Chem 2005;136:21–45.
[2] Chen M-H. Update on dental nanocomposites. J Dent Res 2010;89:549–60.
[3] Jandt KD, Sigusch BW. Future perspectives of resin-based dental materials. Dent Mater 2009;8:1001–6.
[4] Fiset L, Grembowski D. Adoption of innovative caries-control services in dental practice: a survey of Washington state dentists. J Am Dent Assoc 1997;128(3):337–45.
[5] Peutzfeldt A. Resin composites in dentistry: the monomer systems. Eur J Oral Sci 1997;105:97–116.
[6] Stansbury JW. Curing dental resins and composites by photopolymerization. J Esthet Dent 2000;12:300–8.
[7] Park YJ, Chae KH, Rawls HR. Development of a new photoinitiation system for dental light-cure composite resins. Dent Mater 1999;15:120–7.
[8] Neumann MG, Miranda Jr WG, Schmitt CC, Rueggeberg FA, Correa IC. Molar extinction coefficients and the photon absorption efficiency of dental photoinitiators and light curing units. J Dent 2005;33:525–32.
[9] Shin DH, Rawls HR. Degree of conversion and color stability of the light curing resin with new photoinitiator systems. Dent Mater 2009;25:1030–8.
[10] Bayne SC, Thompson JY, Swift Jr EJ, Stamatiades P, Wilkerson M. A characterization of first-generation flowable composites. J Am Dent Assoc 1998;129(5):567–77.
[11] Choi KK, Ferracane JL, Hilton TJ, Charlton D. Properties of packable dental composites. J Esthet Dent 2000;12:216–26.
[12] Bayne SC, Heymann HO, Swift Jr EJ. Update on dental composite restorations. J Am Dent Assoc 1994;125:687–701.
[13] Ilie N, Hickel R. Investigations on mechanical behavior of dental composites. Clin Oral Invest 2009;13:427–38.

[14] ADA professional product review. Restor Mater 2010;5(2):1–16.
[15] Ilie N, Hickel R. Macro-, micro- and nano-mechanical investigations on silorane and methacrylate-based composites. Dent Mater 2009;25:810–9.
[16] Curtis AR, Palin WM, Fleming GJ, Shortall AC, Marquis PM. The mechanical properties of nanofilled resin-based composites: the impact of dry and wet cyclic pre-loading on bi-axial flexure strength. Dent Mater 2009;25:188–97.
[17] Hahnel S, Henrich A, Bürgers R, Handel G, Rosentritt M. Investigation of mechanical properties of modern dental composites after artificial aging for one year. Oper Dent 2010;35:412–9.
[18] Blackham JT, Vandewalle KS, Lien W. Properties of hybrid resin composite systems containing prepolymerized filler particles. Oper Dent 2009;34:697–702.
[19] Ernst CP, Brandenbusch M, Meyer G, Canbek K, Gottschalk F, Willershausen B. Two-year clinical performance of a nanofiller vs a fine-particle hybrid resin composite. Clin Oral Invest 2006;10:119–25.
[20] Kramer N, Reinelt C, Richter G, Petschelt A, Frankenberger R. Nanohybrid vs. fine particle composite in class II cavities: clinical results and margin analysis after four years. Dent Mater 2009;25:750–9.
[21] Scougall-Vilchis RJ, Hotta Y, Hotta M, Idono T, Yamamoto K. Examination of composite resins with electron microscopy, microhardness tester and energy dispersive X-ray microanalyzer. Dent Mater J 2009;28:102–12.
[22] Wolter H, Glaubitt W, Rose K. Multifunctional (meth)acrylate alkoxysilanes—a new type of reactive compounds. Mat Res Soc Symp Proc 1992;271:719–24.
[23] Weinmann W, Thalacker C, Guggenberger R. Siloranes in dental composites. Dent Mater 2005;21:68–74.
[24] Ilie N, Hickel R. Silorane-based dental composite: behavior and abilities. Dent Mater J 2006;25:445–54.
[25] Schmidt M, Kirkevang LL, Hørsted-Bindslev P, Poulsen S. Marginal adaptation of a low-shrinkage silorane-based composite: 1-year randomized clinical trial. Clin Oral Invest 2010. July 20 [Epub ahead of print].
[26] Marchesi G, Breschi L, Antoniolli F, DiLenarda R, Ferracane J, Cadenaro M. Contraction stress of low-shrinkage composite materials assessed with different testing systems. Dent Mater 2010;26:947–53.
[27] Eick JD, Kotha SP, Chappelow CC, Kilway KV, Giese GJ, Glaros AG, et al. Properties of silorane-based dental resins and composites containing a stress-reducing monomer. Dent Mater 2007;23:1011–7.
[28] Lui H, Trujillo-Lemon M, Ge J, Stansbury JW. Dental resins based on dimer acid dimethacrylates: a route to high conversion with low polymerization shrinkage. Compendium 2010;31(Special issue 2):1–4.
[29] Bracho-Troconis C, Trujillo-Lemon M, Boulden J, Wong N, Wall K, Esquibel K. Characterization of N'Durance: a nanohybrid composite based on new nano-dimer technology. Compendium Cont Ed Dent 2010;31(Special issue 2):5–9.
[30] Soh MS, Yap AUJ, Sellinger A. Physicomechanical evaluation of low-shrinkage dental nanocomposites based on silsesquioxane cores. Eur J Oral Sci 2007;115:230–8.
[31] Xu HH, Sun L, Weir MD, Antonucci JM, Takagi S, Chow LC, et al. Nano DCPA-whisker composites with high strength and Ca and PO (4) release. Dent Res 2006;85:722–7.
[32] Xu HHK, Weir MD, Sun L, Moreau JL, Takagi S, Chow LC, et al. Strong nanocomposites with Ca, PO_4, and F release for caries inhibition. J Dent Res 2010;89:19–28.
[33] Xu HHK, Moreau JL, Sun L, Chow LC. Novel CaF_2 nanocomposite with high strength and fluoride release. J Dent Res 2010;89:739–45.
[34] Lee TY, Cramer N, Hoyle C, Stansbury J, Bowman C. (Meth)acrylate vinyl ester hybrid polymerizations. J Poly Sci A Polym Chem 2009;47:2509–17.
[35] Carioscia JA, Lu H, Stansbury JW, Bowman CN. Thiol-ene oligomers as dental restorative materials. Dent Mater 2005;21:1137–43.
[36] Gauthier MA, Zhang Z, Zhu XX. New dental composites containing multimethacrylate derivatives of bile acids: a comparative study with commercial monomers. Appl Mater Interfaces 2009;1:824–32.
[37] Okamura H, Miyasaka T, Hagiwara T. Development of dental composite resin utilizing low-shrinking and low-viscous monomers. Dent Mater J 2006;25:437–44.
[38] Podgórski M. Synthesis and characterization of novel dimethacrylates of different chain lengths as possible dental resins. Dent Mater 2010;26:e188–94.
[39] Moszner N, Fischer UK, Angermann J, Rheinberger V. A partially aromatic urethane dimethacrylate as a new substitute for Bis-GMA in restorative composites. Dent Mater 2008;24:694–9.
[40] Leung D, Spratt DA, Pratten J, Gulabivala K, Mordan NJ, Young AM. Chlorhexidine-releasing methacrylate dental composite materials. Biomaterials 2005;26:7145–53.
[41] Sevinc BA, Hanley L. Antibacterial activity of dental composites containing zinc oxide nanoparticles. J Biomed Mater Res B: Appl Biomater 2010;94B:22–31.
[42] Beyth N, Yudovin-Farber I, Bahir R, Domb AJ, Weiss EI. Antibacterial activity of dental composites containing quaternary ammonium polyethylenimine nanoparticles against *Streptococcus mutans*. Biomaterials 2006;27:3995–4002.
[43] Ebi N, Imazato S, Noiri Y, Ebisu S. Inhibitory effects of resin composite containing bactericide-immobilized filler on plaque accumulation. Dent Mater 2001;17:485–91.
[44] Wiegand A, Buchalla W, Attin T. Review on fluoride-releasing restorative materials—fluoride release and uptake characteristics, antibacterial activity and influence on caries formation. Dent Mater 2007;23:343–62.
[45] Sarrett DC. Clinical challenges and the relevance of materials testing for posterior composite restorations. Dent Mater 2005;21:9–20.
[46] Palin WM, Fleming GJ, Burke FJ, Marquis PM, Randall RC. The influence of short and medium-term water immersion on the hydrolytic stability of novel low-shrink dental composites. Dent Mater 2005;21:852–63.
[47] Aboushelib MN, Feilzer AJ, Kleverlaan CJ. Bridging the gap between clinical failure and laboratory fracture strength tests using a fractographic approach. Dent Mater 2009;25:383–91.
[48] Xu HH, Quinn JB, Smith DT, Giuseppetti AA, Eichmiller FC. Effects of different whiskers on the reinforcement of dental resin composites. Dent Mater 2003;19:359–67.
[49] Tyas MJ. Correlation between fracture properties and clinical performance of composite resins in Class IV cavities. Aust Dent J 1990;35:46–9.
[50] Lambrechts P, Braem M, Vanherle G. Buonocore memorial lecture. Evaluation of clinical performance for posterior composite resins and dentin adhesives. Oper Dent 1987;12:53–78.
[51] Liebenberg WH. Successive cusp build-up: an improved placement technique for posterior direct resin restorations. J Can Dent Assoc 1996;62:501–7.
[52] Deliperi S, Bardwell DN. An alternative method to reduce polymerization shrinkage in direct posterior composite restorations. J Am Dent Assoc 2002;133:1387–98.
[53] Park J, Chang J, Ferracane J, Lee IB. How should composite be layered to reduce shrinkage stress: incremental or bulk filling? Dent Mater 2008;24:1501–5.

[54] Ferracane JL, Buonocore, Lecture. Placing dental composites—a stressful experience. Oper Dent 2008;33(247–257):55.
[55] Andersson-Wenckert IE, van Dijken JW, Kieri C. Durability of extensive Class II open-sandwich restorations with a resin-modified glass ionomer cement after 6 years. Am J Dent 2004;17:43–50.
[56] Opdam NJ, Bronkhorst EM, Roeters JM, Loomans BA. Longevity and reasons for failure of sandwich and total-etch posterior composite resin restorations. J Adhes Dent 2007;9:469–75.
[57] Burrow MF, Banomyong D, Harnirattisai C, Messer HH. Effect of glass-ionomer cement lining on postoperative sensitivity in occlusal cavities restored with resin composite—a randomized clinical trial. Oper Dent 2009;34:648–55.
[58] Lee IB, Son HH, Um CM. Rheologic properties of flowable, conventional hybrid, and condensable composite resins. Dent Mater 2003;19:298–307.
[59] Lee J-H, Um C-M, Lee I-B. Rheological properties of resin composites according to variations in monomer and filler composition. Dent Mater 2006;22:515–26.
[60] Beun S, Bailly C, Devaux J, Leloup G. Rheological properties of flowable resin composites and pit and fissure sealants. Dent Mater 2008;24:548–55.
[61] Lee I-B, Chang J, Ferracane J. Slumping resistance and viscoelasticity prior to setting of dental composites. Dent Mater 2008;24:1586–93.
[62] Chiang Y-C, Knezevic A, Kunzelmann K-H. Slumping during sculpturing of composite materials. Dent Mater 2008;24:1594–601.
[63] Lee I-B, Min S-H, Kim S-Y, Ferracane J. Slumping tendency and rheological properties of flowable composites. Dent Mater 2010;26:443–8.
[64] Kaleem M, Satterthwaite JD, Watts DC. Effect of filler particle size and morphology on force/work parameters for stickiness of unset resin-composites. Dent Mater 2009;25:1585–92.
[65] Ertl K, Graf A, Watts D, Schedle A. Stickiness of dental resin composite materials to steel, dentin and bonded dentin. Dent Mater 2010;26:59–66.
[66] Da Costa J, Ferracane J, Paravina RD, Mazur RF, Roeder L. The effect of different polishing systems on surface roughness and gloss of various resin composites. J Esthet Restor Dent 2007;19:214–24 [discussion 225–6].
[67] Endo T, Finger WJ, Kanehira M, Utterodt A, Komatsu M. Surface texture and roughness of polished nanofill and nanohybrid resin composites. Dent Mater J 2010;29:213–23.
[68] Marghalani HY. Effect of finishing/polishing systems on the surface roughness of novel posterior composites. J Esthet Restor Dent 2010;22:127–38.
[69] ADA professional product review. Polishing Systems 2010;5(1):1–16.
[70] Cavalcante LM, Masouras K, Watts DC, Pimenta LA, Silikas N. Effect of nanofillers' size on surface properties after toothbrush abrasion. Am J Dent 2009;22:60–4.
[71] Heintze SD, Forjanic M, Ohmiti K, Rousson V. Surface deterioration of dental materials after simulated toothbrushing in relation to brushing time and load. Dent Mater 2010;26:306–19.
[72] Barucci-Pfister N, Göhring TN. Subjective and objective perceptions of specular gloss and surface roughness of esthetic resin composites before and after artificial aging. Am J Dent 2009;22:102–10.
[73] Quirynen M, Bollen CM, Papaioannou W, Van Eldere J, van Steenberghe D. The influence of titanium abutment surface roughness on plaque accumulation and gingivitis: short-term observations. Int J Oral Maxillofac Implants 1996;11:169–78.
[74] Sharif MO, Caleugh M, Merry A, Tickle M, Dunne SM, Brunton P, et al. Replacement versus repair of defective restorations in adults: resin composite. Cochrane Database Syst Rev 2010:1–12.
[75] Gordan VV, Shen C, Riley 3rd J, Mjor IA. Two-year clinical evaluation of repair versus replacement of composite restorations. J Esthet Restor Dent 2006;18:144–54.
[76] Moncada G, Fernandez E, Martin J, Arancibia C, Mjor IA, Gordan VV. Increasing the longevity of restorations by minimal intervention: a two-year clinical trial. Oper Dent 2008;33:258–64.
[77] Moncada G, Martin J, Fernandez E, Hempel MC, Mjor IA, Gordan VV. Sealing, refurbishment and repair of Class I and Class II defective restorations: a three-year clinical trial. J Am Dent Assoc 2009;140:425–32.
[78] Gordan VV, Garvan CW, Blaser PK, Mondragon E, Mjör IA. A long-term evaluation of alternative treatments to replacement of resin-based composite restorations: results of a seven-year study. J Am Dent Assoc 2009;140:1476–84.
[79] Gordan VV, Garvan CW, Richman JS, Fellows JL, Rindal DB, Qvist V, et al. How dentists diagnose and treat defective restorations: evidence from the dental practice-based research network. Oper Dent 2009;34:664–73.
[80] Rodrigues Jr SA, Ferracane JL, Della Bona A. Influence of surface treatments on the bond strength of repaired resin composite restorative materials. Dent Mater 2009;25:442–51.
[81] Rinastiti M, Ozcan M, Siswomihardjo W, Busscher HJ. Immediate repair bond strengths of microhybrid, nanohybrid and nanofilled composites after different surface treatments. J Dent 2010;38:29–38.
[82] Papacchini F, Toledano M, Monticelli F, Osorio R, Radovic I, Polimeni A, et al. Hydrolytic stability of composite repair bond. Eur J Oral Sci 2007;115:417–24.
[83] Stewardson D, Thornley P, Bigg T, Bromage C, Browne A, Cottam D, et al. The survival of class V restorations in general dental practice: Part 1, baseline data. Br Dent J 2010;208:1–5.
[84] Gaengler P, Hoyer I, Montag R. Clinical evaluation of posterior composite restorations: the 10-year report. J Adhes Dent 2001;3:185–94.
[85] Pallesen U, Qvist V. Composite resin fillings and inlays. An 11-year evaluation. Clin Oral Invest 2003;7:71–9.
[86] DaRosa Rodolpho PA, Cenci MS, Donassollo TA, Loguércio AD, Demarco FF. A clinical evaluation of posterior composite restorations: 17-year findings. J Dent 2006;34:427–35.
[87] Van Nieuwenhuysen JP, D'Hoore W, Carvalho J, Qvist V. Long-term evaluation of extensive restorations in permanent teeth. J Dent 2003;31:395–405.
[88] Bernardo M, Luis H, Martin MD, Leroux BG, Rue T, Leitão J, et al. Survival and reasons for failure of amalgam versus composite posterior restorations placed in a randomized clinical trial. J Am Dent Assoc 2007;138:775–83.
[89] Soncini JA, Maserejian NN, Trachtenberg F, Tavares M, Hayes C. The longevity of amalgam versus compomer/composite restorations in posterior primary and permanent teeth: findings from the New England Children's Amalgam Trial. J Am Dent Assoc 2007;138:763–72.
[90] Opdam NJ, Bronkhorst EM, Loomans BA, Huysmans MC. 12-Year survival of composite vs. amalgam restorations. J Dent Res [Epub ahead of print].

2024 HR Update: Navigating New Legal and Compliance Challenges in California's Healthcare Sector

As we step into 2024, the San Mateo County Dental Society is at the forefront of adapting to new legal and compliance challenges in California's healthcare sector. The state's legislative landscape is evolving rapidly, introducing laws that significantly impact human resources in healthcare. This year, key changes include alterations in employment contracts, employee rights, and workplace safety regulations. Our role is to help our members understand these changes and ensure their practices remain compliant and efficient.

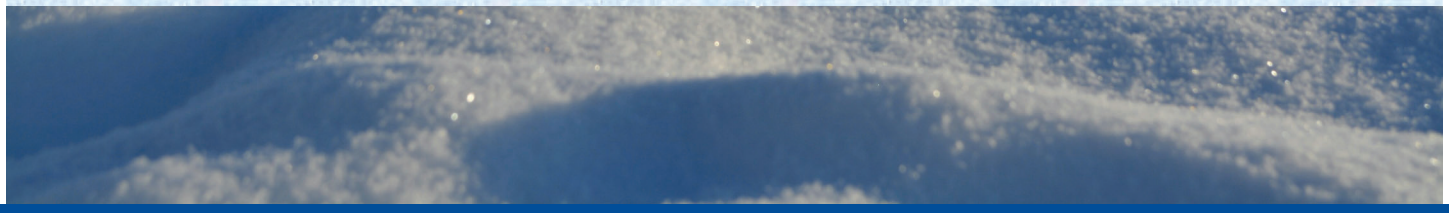
Understanding the 2024 Legal Landscape for Healthcare HR

The healthcare sector in California is facing an unprecedented shift in its legal landscape in 2024. New laws and amendments are reshaping the way healthcare providers manage their workforce. This includes significant changes in noncompete agreements, electronic communication protocols, and cannabis use policies. These changes affect the day-to-day operations and the long-term strategic planning of healthcare organizations.

It's crucial for healthcare providers to stay informed about these legal changes. Understanding the nuances of each new law and its implications on HR practices is vital for maintaining compliance. The San Mateo County Dental Society is committed to keeping our members updated and educated about these developments. Our focus is on translating these legal complexities into actionable insights for our members.

Key Strategies for HR Compliance in 2024

- Stay Informed: Regularly update yourself on new laws and regulations. Attend workshops, webinars, and consult legal experts to stay ahead of the curve.
- Revise Policies: Proactively revise your HR policies and procedures to align with new legal standards. This includes updating noncompete clauses and drug use policies.
- Employee Communication: Enhance communication channels with your employees. Clearly and transparently convey any changes in HR policies to ensure understanding and compliance.
- Audit and Adapt: Conduct regular audits of your HR practices. Identify areas that need adaptation or improvement in light of new legal requirements.
- Seek Expertise: Don’t hesitate to seek guidance from legal experts in healthcare law. Their insights can be invaluable in navigating complex legal landscapes.



Essentials of Updating Employment Manuals for 2024

Updating employment manuals for 2024 is a crucial step in ensuring HR compliance. These manuals serve as the foundation for clear communication of policies and expectations between employers and employees. Given the new legal changes, it's essential that these documents accurately reflect current laws and practices. This ensures that both the healthcare providers and their employees are on the same page, reducing the risk of legal disputes.

Incorporating New Policies and Legal Requirements

Incorporating new policies and legal requirements into employment manuals is a legal necessity and a best practice. These updates should reflect changes in noncompete agreements, cannabis policies, and electronic communication protocols. It's important that these revisions are comprehensive and clearly articulated. This ensures legal compliance and builds trust and transparency with employees.

Ensuring Clarity and Accessibility in Manuals

Clarity and accessibility in employment manuals are essential for effective communication. The language used should be clear, concise, and easily understandable to all employees. This avoids confusion and misinterpretation of policies, which is crucial for maintaining a harmonious workplace.

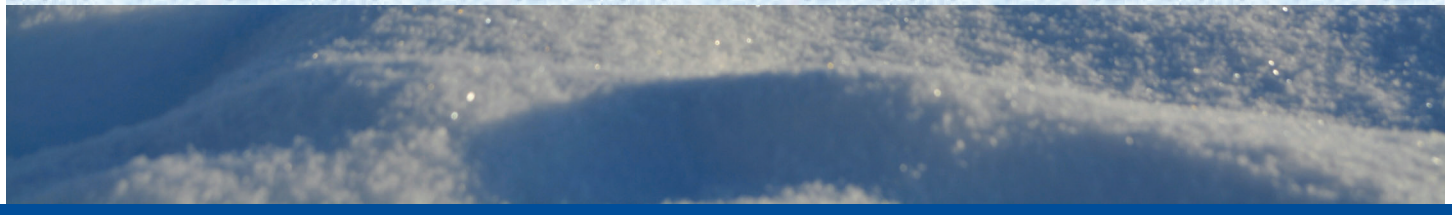
Regular Review and Update Processes

Regular review and update processes are vital for keeping employment manuals relevant and compliant. Laws and regulations are constantly evolving, and so should your employment manuals. Implement a schedule for periodic reviews and updates involving critical stakeholders in the process.

Aligning Employment Agreements with New Legal Standards

Aligning employment agreements with new legal standards is critical to HR compliance in 2024. These agreements are legally binding documents that outline the terms of employment, rights, and responsibilities of both the employer and the employee. With the introduction of new laws, particularly those affecting noncompete clauses and cannabis use policies, it's imperative that these agreements are updated accordingly.

The revision of employment agreements should be comprehensive, covering all aspects affected by the new laws. This includes terms related to job responsibilities, termination conditions, and employee rights. It's essential to ensure that these terms are not only legally compliant but also fair and transparent.



Choosing the Right HR Software for Modern Compliance

In the age of digital transformation, choosing the right HR software is crucial for modern compliance. The right software can streamline HR processes, ensuring efficiency and accuracy in managing employee data and compliance requirements. With the changing legal landscape in 2024, it's important to have a software solution that can adapt and incorporate these new regulations effectively.

Evaluating Software for Legal Compliance Features

When evaluating HR software, focus on its legal compliance features. The software should be capable of adapting to new laws and regulations, ensuring your HR practices remain compliant. Look for features like customizable contract templates, compliance tracking, and reporting capabilities. These features can significantly ease the burden of maintaining compliance in a constantly evolving legal environment.

In addition, consider the software's ability to handle specific requirements of the healthcare sector. This includes managing sensitive employee information, compliance with healthcare-specific regulations, and the ability to handle unique employment agreements. Software tailored to the healthcare industry's needs can be a valuable asset in managing HR compliance effectively.

Integrating Software with Existing HR Systems

Integrating new HR software with existing systems is crucial in ensuring a seamless transition and ongoing efficiency. The software should be compatible with your current HR processes and technologies. This minimizes disruption and allows for a smoother implementation process.

During integration, it's important to ensure data accuracy and security. Transferring employee data and other sensitive information should be done with utmost care and in compliance with data protection regulations. Proper training and support during this phase can significantly reduce the risk of errors and enhance user adoption.

Training Staff on New Software Utilization

Training staff on new software utilization is essential for maximizing its benefits. Employees should be comfortable and proficient in using the software to ensure it's effectively utilized. This training should cover all relevant features and functionalities of the software, tailored to the specific roles and needs of the users.

Ongoing support and resources should also be provided to address any questions or challenges that arise post-implementation. This encourages continuous learning and adaptation, ensuring the software remains valuable for HR compliance and management.

Expert Guidance: Partnering with Legal Professionals

Partnering with legal professionals is invaluable in navigating the complex legal changes in 2024. Legal experts specializing in healthcare law can provide tailored advice and guidance, ensuring your HR practices

are compliant and optimized for your specific needs. Their expertise is crucial in interpreting new laws and integrating them into your HR strategies.

Legal professionals can also assist in reviewing and updating employment agreements and manuals. Their insights ensure that these documents are legally sound and aligned with the latest regulations. This partnership reduces the risk of legal disputes and enhances the overall effectiveness of your HR management.

Overview of California AB 1076: Reshaping Noncompete Agreements

California AB 1076, effective in 2024, significantly impacts noncompete agreements in the healthcare sector. This legislation voids noncompete agreements in employment contexts that do not meet specific exceptions. This means revisiting and potentially modifying employment contracts for healthcare providers to ensure compliance with these new standards.

The implications of AB 1076 are far-reaching for both employers and employees. This law opens up greater mobility and career advancement opportunities for healthcare professionals within California. It removes the constraints of noncompete clauses, allowing for more freedom in exploring different roles and employers.

The Significance of California AB 1355: Modernizing Communication

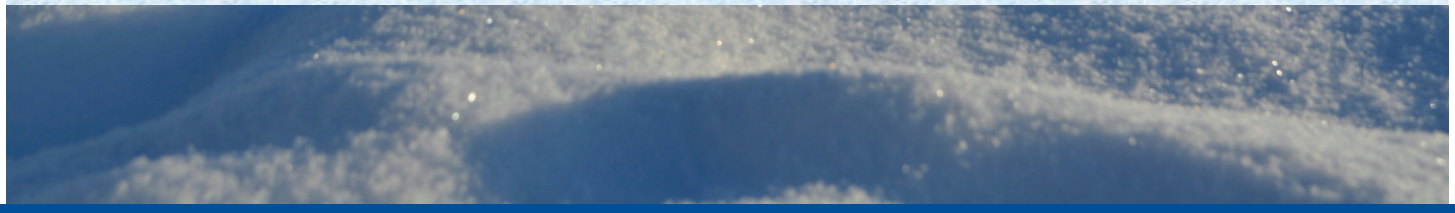
California AB 1355 introduces new protocols for electronic communication in the healthcare sector. Effective in 2024, this law allows healthcare employers to communicate certain information like income tax credits and unemployment benefits via email, with the written consent of employees. This modernization reflects the growing digitalization of workplace communication and aims to streamline the dissemination of important information.

However, AB 1355 also recognizes the diverse preferences of employees in receiving communication. It mandates that employers must respect the choice of employees who opt out of electronic notices, providing them with traditional methods of communication instead. This aspect of the law ensures that no employee is disadvantaged or left out due to their communication preferences.

Impact of California AB 2188 & SB 700 on Cannabis Policies

The enactment of California AB 2188 and SB 700 in 2024 brings significant changes to cannabis policies in the healthcare workplace. AB 2188 prohibits discrimination in hiring, termination, or employment terms based on non-work-hour cannabis use. This law represents a shift in how healthcare employers must approach drug use policies, particularly regarding off-duty behavior.

SB 700 further amplifies this change by making it unlawful for healthcare employers to inquire about a job applicant's cannabis use history. This amendment aims to reduce discrimination and promote fair hiring practices in the healthcare sector. It aligns with broader societal shifts in attitudes towards cannabis use.



The Corporate Transparency Act: What Healthcare HR Needs to Know

The Corporate Transparency Act, coming into effect in 2024, introduces new reporting requirements for healthcare organizations. This federal law aims to combat money laundering and financial crimes by requiring corporations, LLCs, and similar entities to disclose beneficial ownership information. For healthcare HR, this law adds another layer of compliance in terms of reporting and transparency.

Implications for Healthcare HR Practices

The Corporate Transparency Act has significant implications for healthcare HR practices. It requires careful record-keeping and reporting of ownership information. This may involve coordinating with legal and finance departments to ensure accurate and timely reporting.

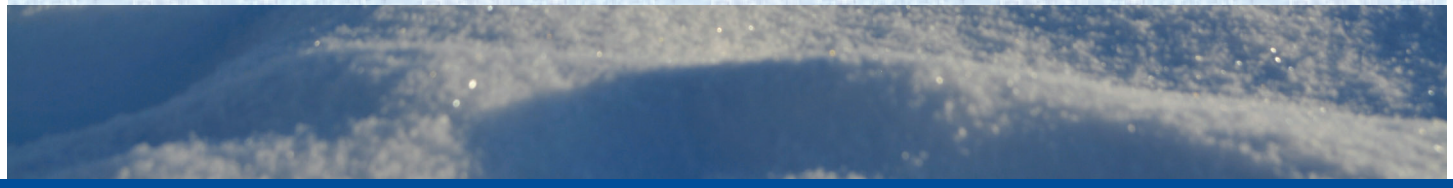
Steps for Ensuring Compliance with the Act

1. **Identify Beneficial Owners: Begin by identifying who qualifies as a beneficial owner in your organization. This includes anyone who owns 25% or more of the company or exercises significant control.**
2. **Collect Required Information: Gather the necessary information from each beneficial owner, including legal name, date of birth, address, and a unique identifying number from an acceptable document.**
3. **Maintain Records: Keep accurate and up-to-date records of this information. Regularly review and update these records as needed.**
4. **Understand Reporting Deadlines: Be aware of the reporting deadlines set by FinCEN and ensure compliance in a timely manner.**
5. **Train HR Staff: Educate your HR team about the requirements of the Corporate Transparency Act. Ensure they understand the implications for hiring and management practices.**
6. **Coordinate with Legal and Finance Teams: Work closely with your legal and finance departments to align reporting practices and maintain compliance.**
7. **Seek Legal Advice: Consult with legal experts to ensure your understanding and compliance with the act are thorough. This step is vital in navigating the complexities of the new requirements.**

Contact Dental and Medical Counsel for Help With HR Compliance in 2024 and Beyond

As we embrace the challenges and opportunities of 2024, the San Mateo County Dental Society remains dedicated to supporting our members in navigating the complex HR landscape. The changes in legal and compliance requirements can be daunting, but with the right guidance and resources, they are surmountable. Our commitment is to provide our members with the latest information, best practices, and expert advice to ensure seamless adaptation to these changes.

For personalized assistance and in-depth guidance on HR compliance in 2024 and beyond, we encourage our members to reach out to Dental and Medical Counsel. Whether it's updating your employment manuals, aligning agreements with new legal standards, or understanding the intricacies of the Corporate Transparency Act, Dental and Medical Counsel can help. Reach out today!



Maximize Your Bottom Line Without Compromising on Smiles

Strategies for bolstering growth and revenue per patient without sacrificing care or morals

By Michael Dinsio, MBA

Walking the Tightrope

In the ever-changing world of dental care, you're constantly balancing financial stability with providing patient well-being. It can feel like a thrilling (yet slightly terrifying) marathon. The pressure to increase revenue is undeniable, and new ways of doing so are constantly knocking at our door.

You might be asking, "Should I invest in cutting-edge technology, a new associate, or anything else that might boost efficiency and proficiency? But how can you do that without overlooking the fundamentals of ethical patient-centered care?" Too much emphasis on the next new thing can quickly and easily leave both smiles and profitability at odds.

This article dives into the delicate dance of maximizing your dental practice's financial success without compromising the trust and health of your patients. We'll explore practical, ethical strategies that bolster your revenue per patient and foster long-term relationships built on genuine care and value. We'll shed light on ethical clinical practices that lead to a thriving dental business. So, get ready to conquer that tightrope act that is your dental practice's success!

Building a Bridge of Trust

At the heart of a thriving dental practice lies one fundamental truth:

> "True success blossoms from patients' trust and perceived value."

So, how do you cultivate this fertile ground while still nurturing the financial health of a practice? To start, engage in crystal-clear communication – the foundation and cornerstone of success. Imagine a sun-drenched pathway illuminating the patient's journey toward their decisions and care.

Remember, educating patients is not about throwing information at them; it's about ensuring they grasp the reasons for every decision and feel comfortable asking questions about treatment options, costs, or potential outcomes. Empowered patients will manage their oral health journey with confidence and satisfaction. The need for transparency extends beyond just price tags, explanations of procedures, potential risks, and alternative options. Informed consent can be a shared relationship, as opposed to a professionally serviced formality.

Let's begin to weave a tapestry of personalized care. Each patient is unique, and their treatment plan should reflect their needs, anxieties, and even their individual insurance benefits. You're not doing your best by providing cookie-cutter solutions; rather, listen attentively, understand their concerns, and tailor recommendations to fit their needs and comfort level. This individualized approach fosters connection, transforming us from dentists or hygienists into trusted dental advisors and partners. If a patient doesn't understand the benefits and risks, you and your team are responsible for walking them through the various outcomes.

You can elevate patient experience by investing in comfort. Of course, modern offices and new equipment minimize physical discomfort, but true peace of mind extends beyond the chair. A welcoming atmosphere, warm amenities, and a friendly, attentive staff set the stage for a stress-free visit. Consider an experience of care, where anxieties melt away with a gentle and warm greeting, assuring your patients they are in good hands.

When attracting patients, envision constructing a bridge connecting patient well-being with your practice's prosperity. Continually focus on the two pillars: Trust and Value. Ethical selling isn't a "used car" sales pitch; it's an invitation to embark on a collaborative journey toward a healthier, more fulfilled lifestyle. Next Level Consultants' coaches can guide your team, training them to learn and practice ethical sales communication with patients to implore new service offerings.

Remember, continual feedback is necessary to identify any displeasure or unease when undergoing new conversations. It is important to maintain consistent messaging within your team when keeping patients informed and comfortable with any new services being introduced. The National Center for Healthcare Quality reminds us that patient surveys or a streamlined complaint resolution process are essential. Incorporate tools that keep an open dialogue between you and your patients, ensuring that patient relationship thrives.

Providing a Host of Services

A prosperous dental practice flourishes by offering a comprehensive range of services tailored to individual needs. The cornerstone of this approach lies in preventative care. Regular checkups and

cleanings are like proactive maintenance, nipping problems in the bud before they blossom into costly procedures. Early intervention, like filling minor cavities, saves patients money and brightens smiles.

A truly well-rounded practice goes beyond just the essentials. Ethical cosmetic dentistry adds a touch of excitement and allure by offering in-demand options like teeth whitening or Invisalign®. However, remember, foundational recommendations are paramount. Simply distinguish between procedures that enhance natural beauty and those that address genuine concerns. For example, correcting misalignment could actually improve oral health. By aligning with the individual patients' needs, conversations about additional services you provide become natural and beneficial.

In addition to expanding opportunities and presenting new services, offering a loyalty program establishes a more balanced relationship, making patients feel like they are a part of something. Imagine repeat satisfied customers returning for your services, drawn by rewards, discounts, and convenient payment plans. These types of programs pique interest and provide a predictable income for your practice, creating a win-win scenario where everyone benefits.

By emphasizing preventative care, offering ethical cosmetic options, and nurturing loyalty programs, you can build a thriving practice where healthy smiles and happy patients are the ultimate reward. Incorporating new techniques and systems and introducing fresh concepts to your team can be daunting. However, Next Level Consultants' coaches are well-equipped and experienced in helping doctors and their teams integrate these programs.

Optimizing Operations and Profits

Lastly, take a moment and picture your practice as a finely tuned clock – each cog working seamlessly to deliver precise, timely care. You have dashboard oversight. Automated tasks seamlessly report essential information, freeing your team to focus on what they do best: caring for patients.

An efficient practice starts with streamlined scheduling. Scheduling software and smart appointment planning minimize wait times and maximize staff utilization. We specialize in helping implement these kinds of scheduling methods at Next Level Consultants. The best way to practice efficient scheduling is to use "block scheduling." This is the preferred method for achieving optimal profitability in any given workday. Next Level's coaches can set up your software and train your team on how to practice this extremely effective approach.

Efficiency isn't solely about timing and hard work, but also about leveraging technology. This involves digital patient records and utilizing task automation software. These vital processes streamline both patient communication and staff workflow. Consider, for instance, how automated appointment reminders and efficient billing systems can reduce missed appointments and improve cash flow. Next

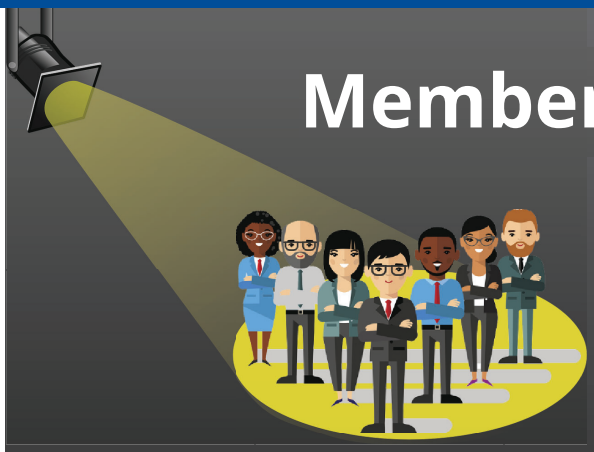
Level Consultants' coaches understand operational bottlenecks and how technology, along with training and systems, clears the way for optimal service delivery and increased revenue.

Of course, there is no software or machine that will be the silver bullet. Without skilled operators, these tools are useless and often more of a hassle than anything else. Investing in team training empowers your staff to understand and utilize the systems that make huge differences in your practice's efficiency and revenue. Knowledge is power, and that goes for you and your team members.

A well-equipped and empowered team can handle any situation with confidence and care. But how do you get there? Combining effective technologies, practical systems, team training, and communication strategies will make your dental practice a model for success. Developing these efficient and customized *services results in* happier, healthier patients and a better bottom line. Next Level Consultants' coaches are prepared to help you implement tools and systems to find revenue that wasn't generated before.

As you plan on growing and developing your practice, coaches target those things that will take you from 1 million in revenue to 1.2 or more. If you think about it, every great athlete has had a great coach behind them, counseling them, supporting them, and rooting them on to be the best version of themself. As a business owner and dentist, asking for help means you're ready to invest in your business. Reach out to explore what working with a coach or consultant looks like for your unique practice. Email admin@nxlevelconsultants.com to set up a time to talk. Or visit www.nxlevelconsultants.com for more inf

Member Specialist Spotlight



Orthodontists

SMCDS has **31** member orthodontists spread throughout San Mateo County

Alexa A. Alborzi, DDS, MDS
235 N San Mateo Dr Ste 300
San Mateo, CA 94401-2672
(650) 342-4171

Sara A. Andrews, DDS, MS
990 Laurel St Ste A
San Carlos, CA 94070-3900
(650) 620-9675

Michael K. Chang, DDS
10 El Camino Real Ste 201
San Carlos, CA 94070-2451
(650) 598-0888

J. James Chen, DDS
19 11th Ave
San Mateo, CA 94401-4308
(650) 570-4365

James J. Chen, DDS
7455 Mission St Ste K
Daly City, CA 94014-2977
(650) 755-0277

Jessica Chiang, DDS
217 De Anza Blvd
San Mateo, CA 94402-3989
(650) 377-0161

Gracia B. Cua, DMD, MScD
2400 Westborough Blvd Ste 104South San Francisco, CA 94080-5402
(650) 873-2740

Steven A. Dugoni, DMD, MSD
1131 Mission Rd
South San Francisco, CA 94080-1302
(650) 588-5042

Thomas S. Ellerhorst, DDS, MSD
256 N San Mateo Dr Ste 1
San Mateo, CA 94401-2670
(650) 343-3603

Maybelle T. Gomez, DDS
4943 Junipero Serra Blvd
Daily City, CA 94014-3216
(650) 994-1818

Krista A. Hirasuna, DDS, MS
2720 Edison St
San Mateo, CA 94403-2458
(650) 574-4444

Kenneth A. Holman, DDS
3221 Jefferson Ave Ste 1
Redwood City, CA 94062-3068
(650) 257-3955

Jeffrey S. Jang, DDS
341 Gellert Blvd., # A
Daly City, CA 94015-2616
(650) 994-3900

Katherine K. Kieu, DDS, MSD
256 N San Mateo Dr Ste 1
San Mateo, CA 94401-2670
(650) 343-3603

Bradley I. Kuper-Smith, DMD
130 N San Mateo Dr Ste 2
San Mateo, CA 94401-2761
(650) 342-9294

Jacklyn R. Kurth, DDS, MSD
2100 Carlmont Dr Ste 6
Belmont, CA 94002-3465
(650) 592-4850

Peter H. Lam, DDS, MS
3455 Pacific Blvd # 1
San Mateo, CA 94403-2836
(650) 638-1500

Gary W. Lau, DDS
1100 Laurel St Ste A
San Carlos, CA 94070-5000
(650) 620-9535

April J. Lee, DDS, MS
1740 Marco Polo Way Ste 12
Burlingame, CA 94010-4500
(650) 231-2680

Jonathon Lee, DDS
1291 E Hillsdale Blvd Ste 100
Foster City, CA 94404-1293
(650) 574-4447

Victor S. Lee, DDS
500 Primrose Rd Ste 1
Burlingame, CA 94010-4096
(650) 342-5801

Alan D. Marcus, DDS
485 Broadway Ste 500
Millbrae, CA 94030-1923
(650) 692-7933

Winton J. Quock, DMD
333 Gellert Blvd Ste 225
Daly City, CA 94015-2660
(650) 756-4555

David T. Shen, DMD
883 Sneath Ln Ste 130
San Bruno, CA 94066-2409
(415) 982-0990

Kenneth L. Stasun, DDS
423 Johnston St
Half Moon Bay, CA 94019-1717
(650) 726-7523

Paul M. Takla, DDS, MS
2130 Ralston Ave Ste 1E
Belmont, CA 94002-1664
(650) 592-4100

Cathy Tao, DDS
101 S San Mateo Dr Ste 115
San Mateo, CA 94401-3840
(650) 275-2288

Kathleen B. Tavarez, DDS, MS
1785 San Carlos Ave Ste 7
San Carlos, CA 94070-2026
(650) 329-9600

James N. Tsau, DDS
11 Birch St Ste 100
Redwood City, CA 94062-1481
(650) 298-8400

Benson H. Wong, DDS
2400 Westborough Blvd Ste 104
South San Francisco, CA 94080-5402
(650) 873-2740

Michael F. Wu, DMD, MMSc
420 Peninsula Ave
San Mateo, CA 94401-1653
(650) 888-0560

SMCDS Business Member Wall of Fame

C-Dental X-Ray Inc.
cdental.com
Julia Peck
Operations Manager
650.207.0478
japeck@cdetnal.com

2015-2024

Yaeger Dental Supply
yaegerdental.com
Tim Yaeger, Jr.
President
650.888.1402
yaegerdental@gmail.com

2015-2024

Dental & Medical Counsel, PC
dmcounsel.com
Ali Oromchian, Esq
925.999.8200
ao@dmcounsel.com

2016-2024

bankofamerica.com

2020-2024

CJ Williams
Vice President
Healthcare Financing
206.549.8369
calvin.williams@bofa.com

Forrest Wiederman
Vice President
Dental Financing
925.278.3343
Forrest.wiederman@bofa.com

Nobel Biocare
nobelbiocare.com
Matthew Ochs
Territory Manager
650.418.4736
matthew.ochs@envistaco.com

2022-2024

Next Level Consultants
nxlevelconsultants.com
Debra Llama
925.457.5594
debra@nxlevelconsultants.com

2023-2024

Roam Commercial Realty
roamcommercialrealty.com
Foad Ahmadi
650.483.0993
foad@roamcommercialrealty.com

2020-2024

Swiss Monkey
swissmonkey.io
Christine Sison
CEO
916.500.4125
christine@swissmonkey.io

2016-2017, 2021-2024

Long Term Care Resources Pacific
mikewonginsurance.com
Michael D. Wong, CLTC, DDS
650.468.2555
mwong@ltcrpacific.com

2021-2024

The Phillips Group
phillipsgrouptax.com
Andrew Phillips
Co-Founder
714.667.2311
hello@phillipsgrouptax.com

2024

Rectangle Health
rectanglehealth.com
Madison Evers
Compliance Advisor
424.353.5303
mevers@rectanglehealth.com

2021-2024

SMCDS Business Members acknowledged on this Wall of Fame contribute in meaningful ways* through out each year of their membership to our society's fiscal health, industry intelligence, and community presence.
*Event sponsorships, educational seminars / workshops, table clinics with timely dental industry / small business information, special product offers /pricing discounts, products and services relevant to your professional success.

Thank You

to 21 Advertisers
Business Members
Exhibitors Sponsors Study Clubs
who have generously supported our continuing education, professional success, practice management, workshop/clinical programs this past quarter.

“Debugging The Myths of Practice Transitions/Selling Your Practice Part 4 - Transition Planning Requirements”

By Michael Njo, DDS

In this article, I will summarize and outline what is needed and what to expect when buying or selling a dental practice.

TIME - The time it takes to sell a dental practice can be from three months to three years. A lot of the timing issues depend on the market demand in a particular area. It is interesting that those states that have opened up their borders to reciprocity generally have a much shorter turn-around time for those sellers than those that are restricted to state licensure issues.

VALUE - The first step in any transition is determining the value of the practice. I have discussed this in the previous article.

FINDING A BUYER - Assuming the value of the practice is acceptable, now you need to find a buyer. Very often, this step happens unexpectedly, and you need to backtrack to get the appraisal done. In any case, once a buyer has been identified, the negotiation process begins. This process can be simple or complex, friendly or hostile; but at some point, you will either agree on the basic terms and conditions, or you will not. Because of the dynamics of a practice sale, all of the terms and conditions will not be agreed to in the beginning because there are too many issues to resolve. Therefore, the basic terms and conditions of the transition should be agreed to, and the rest of the items will be settled one at a time as the process continues.

INITIAL AGREEMENT - The four issues that should be agreed to in the beginning are purchase price, method of payment (cash at closing, seller financing or a combination thereof), closing date, and terms of the restrictive covenant. Once these terms and conditions have been agreed to, we have a meeting of the minds on these issues. This does not mean that we have a deal; it just means that we have a solid foundation for a deal to work from. At this point, the seller and buyer should execute a letter of intent (LOI) that outlines the agreed-upon terms and conditions, and the buyer should make an earnest money deposit. It does not have to be a large sum, and it will be refundable in the event the transaction does not close. From the time of signing a letter of intent to closing usually takes from thirty to ninety days, although the timeline can be stretched if necessary. During this time, all of the other terms and conditions of the transaction will be worked out and the financing commitment procured. Generally, the financing and acquiring of insurances can be the longest part of the process. The buy-in partnership or solo group structure will take significantly longer because the buyer has got to be established and generating significant production before he or she can afford the buy-in. The documentation required is also totally

different and more complicated than for the straight sale. However, the same initial process should be followed. There should also be some form of projecting at what point, production wise, the buyer can afford to buy into the practice, and with this projection, a general time frame during which it seems practical that the buyer can achieve this goal. In general, this process is about 6 months to one year.

DOCUMENTS - The documents required for a transition depend on the type of transaction.

• An outright sale will require a purchase and sale agreement (PSA) or an asset purchase agreement (APA), restrictive covenant and/or non-solicitation agreement, lease, bill of sale, and closing statements.

• A buy-in to a corporation will require a stock purchase agreement, revision of the corporation shareholder agreement, minutes reflecting the action of the board of directors, and employment agreements with each of the dentists of the corporation.

• A buy-in with a defined buyout would require the same documents as the buy-in, but would also provide for the obligation, options, or rights of first refusal for the buyout. These provisions may include formulas or actual numbers for the purchase price, time frames, payment terms, and so on. Usually at the buyout, the buyer will again pay a nominal fee for the stock (for tax purposes), which will include the tangible assets (they will most likely be owned by the corporation) and the balance of the purchase price allocated to the personal goodwill of the selling dentist. The buyout will be a cash transaction because the buyer will be able to get financing by collateralizing the entire practice. The buyout will still be a win-win transaction because the seller will receive capital gains treatment for the entire sale price, and the buyer will be able to amortize the value of the goodwill over a fifteen-year period.

• The solo group requires an initial agreement with the entire process defined, including the way each dentist's patients will be transferred and identified, protection of each dentist's individual goodwill, the purchase price (dollars or formulas), and approximate time frame for the buyout point. The buyout point is established in the beginning of the relationship and is projected as a function of the income and expenses of the practice as well as the number of active patients, the number of new patients, staffing requirements, and the facility. At the buyout, the same documents as for an outright sale are required since, in fact, there is an outright sale of goodwill and a fifty percent undivided interest in the tangible assets (equipment and supplies).

DEFINITION AND FUNCTION OF THE DOCUMENTS:
It should be said that all mechanisms and advisors of the transition should be facilitated by an individual that specializes in the dental industry. The dental industry is very unique and has nuances that are specific to the industry of dentistry.

• Confidentiality Agreement
A confidentiality agreement, or non-disclosure agreement (NDA) is often required by the seller or the seller's advisor or broker before identifying a practice and providing the proprietary information about the practice. This agreement is a legal and enforceable agreement that can have serious financial implications if damage occurs to the practice because information is distributed that should not be made available to the public at large.

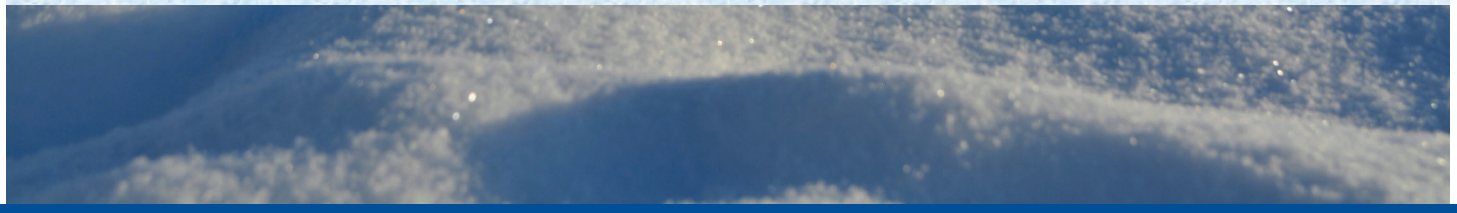
• Letter of Intent (LOI)
A letter of intent is usually a nonbinding agreement that describes the basic terms and conditions of the transaction. As mentioned above, it should include the agreed-upon purchase price, method of payment, restrictive covenant parameters, and closing date, and it should be accompanied by a refundable earnest money deposit by the buyer.

• Purchase and Sale Agreement (PSA)
The purchase and sale agreement will identify all of the terms and conditions of the sale, including the allocations of the various assets, the payment terms, restrictive covenant parameters, closing date, and indemnification language. It will be a very comprehensive document and should be drafted specifically for the sale of a dental practice, not a generic agreement used for any business transaction. There are issues that are very dental-specific that should be included in this document, therefore requiring someone with knowledge of your state dental act requirements to make sure that the required issues are addressed.

• Restrictive Covenant
The restrictive covenant will restrict a party to the transaction, usually the seller, from practicing dentistry or associating with a dental practice in any capacity within a certain area and for a certain period of time after leaving the practice. The time and distance criteria are jurisdictional, meaning that every court jurisdiction will have set acceptable standards of time and distance that they deem reasonable. In the event the restrictions are challenged or breached, and the issue ends up in litigation, the court may determine whether the restrictions are too severe. They may also disallow the covenant altogether or revise it to meet the acceptable reasonable standard set by the jurisdiction. Though the restrictive covenant time and distance is usually defined in the purchase and sale agreement, a separate restrictive covenant agreement should be attached to the purchase and sale agreement as an addendum, which makes it part of the purchase and sale agreement. The restrictive covenant agreement should be a complete, stand-alone agreement that is comprehensive in nature and defines all of the terms and conditions of the restrictions agreed to, including the penalties and remedies for breach of the agreement.

• Reverse Restrictive Covenant
A reverse restrictive covenant is appropriate in the event the seller is financing all or part of the transaction. The reverse restrictive covenant protects the seller in the event the buyer defaults on his or her payment obligations and restricts him or her from practicing in a competitive area in order to protect the seller's practice.

• Promissory Note
A promissory note is the legal document that obligates the executer of the note to pay the holder of the note the money owed. Usually, the only time a promissory note is involved between a buyer and seller is if the seller is financing the transaction. A buyer will be executing a promissory note with whomever he or she has borrowed the money, whether the seller or a commercial lender.



• Security Agreement
The security agreement is the document that secures the promissory note. It reiterates the terms and conditions of the financial obligation, the terms of payment, the collateral supporting the value of the note, and the penalties in the event of default on the note. A security agreement should always accompany a promissory note so that the holder of the note will have adequate recourse in the event of a default.

• Closing Statements
The closing statements, usually one for the seller and one for the buyer, identify the way the money in the transaction was disbursed. Closing statements are necessary for determining tax issues when the tax returns are filed and should be signed by all parties to the transaction, verifying that the money that was disbursed to the buyer, seller, and third parties, was, in fact, agreed to by all the parties to the transaction. An escrow company can facilitate this aspect of the transition.

• Employment Agreement
Any time there is an entity, such as a corporation, LLC/LLP, or partnership, there should be employment agreements with each of the principals in the entity. This includes the solo dentist that is incorporated. The employment agreement should, at minimum, include a job description and compensation provisions. When there is more than one dentist in an entity, it is imperative to have employment agreements that define the obligations of each dentist to the corporation and the corporation's responsibilities to the dentist, including compensation and benefits. There should also be provisions for termination in the event of violations of "moral turpitude" (dishonesty, illegal activity, immoral behavior, etc.), the loss of license, or disability to the extent they cannot practice.

• Independent Contractor Agreement
In some cases, an independent contractor relationship is engaged; however, the definitions for a true independent contractor relationship are very specific and clearly defined by the IRS. The reason the IRS is involved in defining a true independent contractor is because the independent contractor relationship is too often established to avoid paying payroll taxes. Some of the requirements that identify a true independent contractor are no longer applicable. Therefore, independent contractor relationships are becoming more popular. Please consult with your CPA.

• Shareholder Agreement
The shareholder agreement is, or should be, a part of the corporate documents in a C or Subchapter S corporation. The shareholder agreement defines the ownership in the corporation, the operating conditions in the corporation, and the dissolution provisions, including insurance requirements and buyout agreements between the parties. It is not infrequent that the shareholder agreement is either found to be incomplete with respect to all of the necessary terms and conditions of the parties' agreements or is woefully neglected and never updated. Along with the corporate minutes, which should be, by law, updated every year at the annual shareholder meeting (which is also often disregarded), the shareholder agreement should be updated and revised to meet the expectations of the shareholders. In some cases, the agreements are not even signed, which renders them invalid in the event of a litigious dissolution.

• Operating Agreement

The operating agreement plays the same function in the LLC/LLP as the shareholder agreement in the corporation. Once again, it should be updated regularly and contain the provisions that the members of the LLC/LLP desire as far as ownership, operating relationship, and dissolution provisions.

ADVISORS - The advisors that are a must in any of these transactions are:

• Attorney

The attorney chosen to represent you in these transactions should be a deal maker, this is a transactional sale not a litigious one. They should have experience in dental practice transitions, including the state dental act requirements and the tax laws. There are several attorneys in the country who specialize in dental legal services and do an excellent job for their clients. Beware, however, of those attorneys who do not specialize in dental practice law who want to totally rewrite the agreements or renegotiate the deal. This will kill a transaction faster than anything else.

• Accountant

Usually, the seller has an established relationship with an accountant or CPA. Often, the buyer does not. Accountants are usually engaged to prepare financial statements and prepare taxes. The sale of a dental practice is totally different and requires a different approach and often, different tax knowledge. A good accountant is also being as creative as is legal to reduce your net income for tax purposes, therefore potentially impacting the value of the practice. Most accountants are very easy to work with, but again, once in a while, there will be one who defies all the experts and demands certain structures that may severely impact the transaction or the tax consequences of the transaction. Remember, you are employing your attorney and accountant. They are not employing you! You should be able to tell them that this is the deal that you want to do and ask them to point out to you any issues that they might be concerned about. But you, ultimately, should make the decision, not the attorney or the accountant.

• Brokers and Consultants

Like any professionals, there are very good and very bad brokers and consultants with a lot of mediocre ones in between. There are very honest and ethical brokers and consultants who can be of incredible value to you in your transition, but you should spend the time to seek them out. As is often said about lawyers, "The most expensive lawyer is a cheap lawyer." The same goes for brokers and consultants. You will get what you pay for and the industry is small enough that it does not take much investigation and inquiry to find out who does a good job and knows their business and those who do not. Dentists do not like paying a commission to a broker or consultant, but choosing the right advisor will more than pay for itself, not only in the quality of the service that you receive, but also in actual dollars you save and/or receive for the services rendered. One of the most accurate ways to identify a good broker or consultant is to talk to colleagues and industry vendors who are involved with dental practice sales. They do business with most of the brokers and consultants and will provide you with references they do business with. Remember, they are lending a lot of money in these transactions and need to do good deals that are successful. They know who they can trust when it comes to quality and integrity. Also ask for references of their former client/dentists who they have facilitated a sale for.

• Lenders

As a buyer, at some point in the process, you will most likely need to borrow money, and as a businessperson, establishing a relationship with a reputable third-party financial institution will be essential. The initial relationship when purchasing a practice is important because it will determine the terms and conditions of the loan, which include the interest rate, the time over which the loan will be paid back, the amount of money that can be borrowed, and the availability of working capital and the future availability of money for growth and/or expansion and new equipment. To establish this partnership with the right lender is important. Lenders are not all the same, and some seem very willing to make the loan as easy as possible for you by extending the term out or even deferring payments. It is not prudent to borrow more money than is needed nor to extend the loan period longer than is required. It will only cost you more than necessary in the long run. Remember, lenders make their money by lending it to you. The higher the interest rate and/or the longer the loan, the more money they make. Because you can save total interest charges by paying the loan off quicker than scheduled, the lender may impose penalties for early payment to assure that they make the amount of money they want to make. One of the biggest mistakes made by borrowers is overreacting to the interest rates. Remember that a practice acquisition loan is not collateralized like a home loan. In other words, if you default on your house payment, the bank can sell your house to recover their money. With a dental practice, however, the majority of the value is in the goodwill, and therefore, the only thing the bank can really sell is the equipment, which is usually valued at a fraction of the whole practice value. The good news is that very few—less than 0.05%—of dental practices fail, and therefore, the lenders are on pretty solid ground when they lend for the purchase of a practice. The other thing to remember is that this is a business loan and not a home mortgage, so interest rates are going to be higher. Often, the first-time buyer of a practice is surprised by the interest rate because they are familiar with the home mortgage rates and assume them to be the same. We talked about cash flow earlier, and you will remember that debt service (the loan to purchase the practice) was one of the components. When cash flowing a practice (overhead, officers' compensation, and debt service), our practice is to amortize the loan (the period of the loan) over a ten-year period. If it can be paid off earlier, that is even better, but for cash flow purposes, we use ten years. If it has to be stretched out for a longer period of time, either the price is too high, or the interest rates are too high. Some lenders want to provide you with a period of six to twelve months on the front end of the loan with no payments due. This will create negative amortization, which is nothing more than interest being charged on interest, which in the long run can significantly increase the total amount of interest you pay for the money you borrow. Remember, any practice will cash flow if the loan is extended out long enough! But, like credit cards, if the minimum due is all that is paid it might take forty years to pay off the present existing balance.

DISSOLUTION PROVISIONS - Just a comment about dissolution provisions:

regardless of the model that you choose for a multi-doctor relationship, the "stepchild" of provisions in the documents, whether it is a partnership, a corporation or an LLC/LLP are the dissolution provisions that kick in when the relationship dissolves. All relationships ultimately dissolve! Whether because of retirement, disability, death, or personal conflicts, all relationships ultimately end. It is therefore critical that the dissolution provisions covering any and all contingencies be defined in depth before the fact and not at the point of dissolution. As mentioned before, these provisions should be re-evaluated and assessed every year so that the necessary changes can be made and incorporated into the documents. For sellers, it is very probable that if you think through your goals and objectives, understand your retirement requirements, evaluate honestly your practice and your exit strategy, and—most of all—use advisors who understand dentistry and the transition process, you will experience a successful and profitable transition. For buyers, find the best and most experienced consultants and brokers and trust their knowledge and expertise. By surrounding yourself with the best advisors and listening to their advice

and counsel, you will not make a mistake. Remember, for both buyer and seller this is a life decision, and it should be taken very seriously. The above outlines are general broad strokes from beginning to end and is not designed as a complete blueprint on how to transact a transition. This is one of the biggest events in your life and can have severe consequences if not done well.

CLASSIFIEDS

Thinking of retiring or slowing down? Want to practice but not manage? Local dentist seeking a practice to buy in San Mateo, 2 mile radius from downtown. Not corp dentistry. Please call 415.269.6254

Seeking a Retiring Dentist Practice to Buy in Redwood City, 2 mile radius from Whipple and El Camino. If you are thinking of retiring in the near future, please call 650.454.0023

General Dentist Seeking Part Time Hygienist
Tuesday, Wednesday, Thursday, and some half day Fridays optional. Practice located in downtown San Carlos. Salary negotiable. Contact 650.219.1516 or dr.clancy@clancydental.com

LTCR Pacific
Prepare for peace of mind™

LET US HELP YOU WITH

LONG TERM CARE INSURANCE PLANNING

WHO WE ARE?

Long-Term Care Resources (LTCR) is a national insurance agency dedicated to long-term care insurance for alumni and professional associations. We are one of the leading, independent long-term care insurance distributors in the country. Since our founding in 1997, we have helped over half a million association members with their long-term care planning needs.

WHAT WE DO?

We get to know our client's situation and present the best long term care insurance solutions respecting their time while maximizing their dollars. Because we have many years of expertise and several carriers to *choose from, we specialize in those individuals:*

- *Who prefer to use 401k/retirement money to fund a long term care policy.*
- *With a history of health issues and concerns.*
- *Who are advanced age.*

If you have questions about long term care insurance or need help understanding your own policy, we can help you!

SOME OF OUR ASSOCIATION MEMBERSHIPS

EMAIL OR CALL US FOR MORE INFO

mwong@ltcrpacific.com

(650) 468-2555

www.ltcrpacific.com
www.mikewonginsurance.com

DENTAL POWER PERSONNEL

Currently providing Bay Area Dentists with quality temporary and permanent

- **Dental Assistants**
- **Dental Hygienists**
- **Receptionists**
- **Dentists**

(415) 781-2909
www.sfdentalpower.com

Dental Power
450 Sutter St., Suite 2010
San Francisco, CA 94108

Desiree Liu, DDS - Member since 2012

2024 Membership Renewal:

Keep SMCDS Strong – Renew Now! - Before the drop date of 4/1/24

IF you haven't paid yet, act NOW to avoid having your membership dropped on 4/1/24. You can still do your part to ***keep your society's business running efficiently*** **by paying before the drop date.**

Don't lose access to resources that make a difference

- Continuing Education, Social/Networking Events ■ Patient Referrals, Vendor Relationships
- Advocacy & Leadership Development ■ Community Outreach/Volunteering
- Job Resources (for dentists & staff) ■ Practice Management & Regulatory Compliance
- Updates on Requirements, Laws, Insurance, Benefits
- Mandatory Courses: CPR, Infection Ctrl, CA Dental Practice Act, Prescribing Controlled Substances
- Document Shredding, eWaste/lead foil disposal and much more...

Discounted/waived dues are available until 3/31/24 for:

- retirees ■ post-graduate students ■ dental school faculty members
- federal employees: active military duty/work full-time at a VA clinic
- serving full-time for a charitable organization ■ temporary/permanent disability
- financial hardship ■ medical illness ■ leave of absence from dentistry

■ **If you're not sure** about ***why*** you should renew and need reassurance of member benefits and the ***power of organized dentistry***, please e-mail mike@smcds.com.

■ IF you run into any problems in the process, call *CDA Membership at* ***800.232.7645*** or *Mike on the SMCDS phone line at* ***650.637.1121.***

CHOOSE AUTOPAY TODAY!

For your convenience, CDA offers the option to break dues into recurring monthly payments. When you enroll in autopay, equal dues monthly payments will automatically be deducted from your chosen checking or savings account on or around the 15th of each month, and your membership will automatically renew each year. See full details at **cda.org/autopay**.

SMCDS Member Dentists enrolling for the first time can receive **30% off** by entering the referral code **SMC** during the iPrescribe registration process.

San Mateo County DENTAL SOCIETY

SAVE time! – Register & Pay Online
www.smcds.com on Education/Events

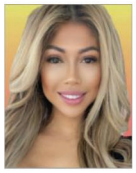
Th 3/14 | Practice Management | Your Blueprint for How to Use Remote Dental Professionals and How to Avoid Common Pitfalls

6:30-8pm

LIVE Webinar

1.5 CE (20%)

Free CE Webinar for All Dentists!



Christine Sison

Learning Objectives

1. Understand the benefits of using remote team members, including how to increase margins and create a better work-life balance for your team
2. Understand the common reasons remote teams fail and how to avoid them
3. Get a step-by-step blueprint to building your remote team
4. Understand how to track productivity, provide transparency and ensure secure communication across teams

Fr 3/22 | Required CE | OSHA-Bloodborne Pathogens ▪ CA Dent Pract Act & Infect Ctrl

LIVE Webinars

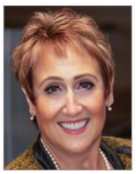
8:15a-10:15a
OSHA-BBP

2 CE (Core)

10:30-3:00p
CDPA & IC

2 CE (Core)

For staff too!



Leslie Canham, CDA, RDA

Course Description

The Dental Board of California requires all licensed dental professionals (DDS, DMD, RDA, RDH, etc.) to take approved CE courses in Infection Control and California Dental Practice Act every two years for license renewal. Cal-OSHA requires employers to provide training in Bloodborne Pathogens, Hazard Communication, General Safety, and Emergency Response to occupationally exposed employees upon hire and at least annually thereafter (refer to your Exposure Control Plan to identify occupationally exposed employees). These three courses are packed with practical information in an enjoyable atmosphere. Bring the whole office for a productive day of learning and fun.

Th 3/28 | SMCDS Study Club | Dental Implants: Treatment Planning and Execution from the View Point of a Prosthodontist and Oral Surgeon

6:30-8:30pm

SMCDS
Seminar Room
939 Laurel Ste C
San Carlos

Dinner Provided

2 CE (Core)

$10 for new dentist members!

Parisa Shahi, DDS, FACP & Minerva Loi, DDS, MD

Description

A discussion on dental implants treatment planning and execution from the view point of a prosthodontist and an oral surgeon.

When you become a SMCDS Study Club member, you will have access to all the meetings as they are recorded. Attendance is strongly recommended to fully benefit from the interaction.

Th 4/18 | General Membership Meeting | Occlusion in 2024

6-9pm

Hiller Aviation Museum
San Carlos

Three-course Dinner

3 CE (Core)

Gary M. DeWood, DDS, MS

Event includes: social hour to meet and network with fellow dentists & exhibitors, appetizers, & dinner.

Course Description

Today's restorative dentist must be a diagnostician not only of the masticatory system but also of the systems that impact it. Whether or not the dentist chooses to be involved in the treatment of airway and breathing problems, parafunctional activities or temporo-mandibular disorders, they must recognize the effect of these on the restorative dentistry that is recommended and completed. This program will assist the clinician in a deeper understanding of the involvement of the problems noted above and the part that occlusion (and occluding) might play in achieving a predictable and long-lasting restorative result.

Course Objectives

- Know why AIRWAY is a dental problem
- Make the connection between TMD and Occlusion
- Visualize designing occlusion and occluding in harmony with the patient