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Academy NEWS

A QUARTERLY MEMBER NEWSLETTER

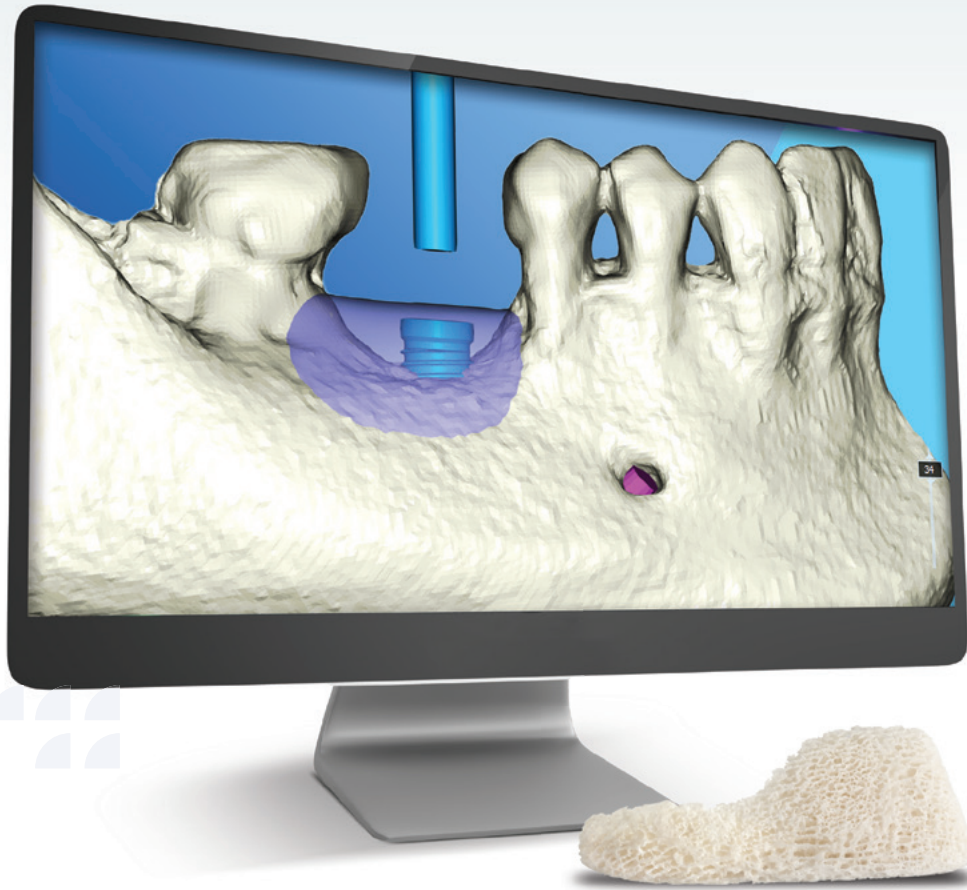
TEAMWORK

- Diagnosis and treatment of the failing dentition
- Emergence profile and peri-implantitis
- Bone grafts used in implant surgery



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¹ Parthasarathy, J. 3D modeling, custom implants and its future perspectives in craniofacial surgery. *Annals of Maxillofacial Surgery* 2014;4:9-18. ² Keith JD Jr, Petrungaro P, Leonetti JA, Elwell CW, Zeren KJ, Caputo C et al. Clinical and histologic evaluation of a mineralized block allograft: results from the developmental period (2001-2004). *Int J Periodontics Restorative Dent*. 2006;26:321-327. (2001-2004). *Int J Periodontics Restorative Dent*. 2006;26:321-327. ³ Leonetti JA, Koup R. Localized maxillary ridge augmentation with a block allograft for dental implant placement: case reports. *Implant Dent*. 2003;12:217-226. ⁴ McAllister, B. S. Bone augmentation techniques *Journal of Periodontology* 2007;78:377-396.

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President's Message

A productive summer for the Academy

By Hom-Lay Wang, DDS, MSD, PhD

Dear AO Members,

Greetings! I hope this message finds you and your

families in good health and high spirits. After taking a short summer vacation in Taipei, Taiwan, I wanted to extend my warmest wishes to you and hope you've had a joyful, peaceful, healthy, and fun-filled summer as well!

I would like to take this opportunity to update you on a few of the exciting initiatives that we have planned for this year and the progress we have made thus far.

First, I am delighted to inform you that the joint consensus conference on "Prevention and Management of Peri-Implant Diseases" between AO and the American Academy of Periodontology (AAP) has received approval from both organizations. Scheduled for August 2024, this conference will bring together leading experts from around the world to tackle this pressing issue. The teams are working diligently to produce at least six published manuscripts, a joint consensus paper, and evidence-based clinical decision guidelines. We believe these deliverables will provide valuable guidance to our members and the larger dental community in addressing how to best prevent and manage peri-implant diseases (please see related article on page 19).

Second, our efforts to establish AO training centers globally are progressing well. Our initial focus is to expand in North America, and we have already set up centers in New York, Chicago, Los Angeles, and Toronto. We are also actively working to expand our international footprint with new centers now in Taiwan, Italy, and Saudi Arabia. These

centers will provide invaluable educational opportunities for individuals seeking to enhance their knowledge in implantology (please see related article on page 5).

Third, we are actively enhancing our AO Master and AO Diplomate credentialing processes to ensure our members are recognized for their achievements. I invite all those interested in becoming an AO Master or AO Diplomate to visit our website and apply accordingly. Becoming part of the esteemed community of AO Masters and AO Diplomates is a testament of the knowledge and skills you've acquired in the implant field.

Fourth, I recently had the pleasure of lecturing at one of AO's first training centers in Cuomo, Italy, hosted by Dr. **Tiziano Testori**. I was inspired by the enthusiasm of many young and talented dentists who are eager to not only build a solid foundation in implant dentistry, but also stay up to date on the latest research, technology, and techniques. Their commitment to providing the best patient care gives me confidence that they will continue to earn the trust of patients.

Fifth, under the guidance of Dr. **Joseph Kan**, along with the Social Media Committee members, the Academy's social media platforms have been highly active. With special thanks to Chair Dr. **Lorenzo Tavelli** and Vice Chair **Briar Voy**, we have been consistently sharing valuable information on Instagram, generating significant engagement to foster collaboration and knowledge-sharing among our members. Through our AO social channels, we have been able to connect more closely and promote the exchange of expertise in a more democratic

Continues on page 7





AO Certificate Program continues impressive growth in new training centers

After marking its first year awarding 76 inaugural recipients, the Academy of Osseointegration's (AO) prestigious certificate program continues to see impressive growth.

The latest major accomplishment of this program, which awards AO Master and AO Diplomate Certificates, is the recent approval of several new AO approved training centers by the Academy's board of directors, bringing the number available up to 10 around the globe. They include:

AO Training Centers	Training Center Director
Toronto Implant Institute	Dr. Natalie Wong
AniDent Dental Education Center Taipei, TAIWAN	Dr. Shi-Chang Tseng
Chicago Implant Institute, Chicago	Dr. Adam Foleck
Canadian Implant Dentistry Network	Dr. Mark Bishara
POZZI INSTITUTE - International Center for Advanced Dentistry, Italy	Dr. Alessandro Pozzi
VISTA Institute for Therapeutic Innovations, Los Angeles, CA	Dr. Homayoun Zadeh
Lake Como Institute, Italy	Dr Tiziano Testori
Anshin Dental Clinic, TAIWAN	Dr. Joey T. Chen
Encia Dental Specialist, MALAYSIA	Dr. Jeanette K. L. Chua
Dentra Academy, SAUDI ARABIA	Dr. Alabbas Hamiduddin

These qualified institutions have ensured that sufficient faculty, financial resources, and academic support exist and comply with AO's requirements. Other training center applications are currently being reviewed.

"The Academy's Certificate Program is an incredibly valuable way to encourage our members to advance their

careers and stay connected. It certifies their knowledge, clinical skills, and rationale for treatment to the next level through a very strict credentialing process," said AO President **Hom-Lay Wang**, DDS, MSD, PhD, who spearheaded this strategic initiative in 2022.

What members are saying

"Even though it was hard work, the actual process itself to apply was pretty simple from the application, to how we scheduled the exam, which was done via Zoom with the moderator," said **Riad Almasri**, DDS, an inaugural recipient of the AO Diplomate Combined Surgical and Restorative Certificate. "I know AO tried to make it as convenient as possible for a busy clinician to step away from the day-to-day managing their practice and stepping away to take an exam. I thank AO for everything they've done to simplify the process."

"One of the things that really sets the AO Diplomate and Master Certificate apart is the community you join by achieving this distinction," said **Todd R. Schoenbaum**, DDS, MS, who earned an AO Diplomate, Restorative Certificate. "If you were to look at the list of folks that earned their AO Diplomate, it's a very esteemed group that I hope all of our colleagues and all of our members will aspire to, and a great way to get to know some of the smartest, most talented, most humble, most friendly leaders in implant dentistry."

Be among the next recipients – Apply by October 31

Would you like to be among the next group to get recognized with an AO Certificate? All applicants who meet the defined criteria, successfully pass written and oral examinations – and submit a completed application by October 31 – will be recognized during the 2024 Annual Meeting, March 7 – 9, in Charlotte, NC.

For more information and to view the full requirements, including a program overview video, please check the Academy's website for the latest updates. For questions, please contact Kim Scroggs, AO director of education at 847-725-2288.

Full arch dentistry: Key considerations for practice integration

By Riad Almasri, DDS, FAO, DAO; Academy News Editorial Consultant;
and Greg Essenmacher, Guest Contributor

The Full Arch immediate loading with dental implant treatment has been a transformative solution for patients struggling with oral health issues for many years. This procedure, which has been available for decades, has the power to change lives. In today's competitive landscape, where specialists, general dentists, and surgical centers are all vying for new patients, the Full Arch treatment has become an attractive option thanks to advancements in technology and the convenience of having all the necessary resources under one roof.

As we know, millions of Americans are either edentulous or as we call them, "dentally exhausted," and in need of dental implant treatment. As the demand rises due to higher patient awareness of such treatment, more and more dentists are stepping into this game to help more patients.

When contemplating the integration of Full Arch treatment into your practice, it is crucial to consider all the factors that will influence its successful implementation. Setting the stage for success relies on the dentist's **PREP**:

Prepare

Begin by conducting a thorough and honest assessment of your team's capabilities and available resources. Evaluate the equipment upgrades and acquisitions necessary to elevate your practice to the level of a Full Arch clinic, such as having a CBCT scan. Understanding your starting point is essential for building a skilled team equipped with the necessary tools. Develop a comprehensive plan to enhance the skills of each department through training and professional development. This approach will pave the way for a smooth start and more predictable outcomes.

Roll Out

Ensure that all departments are well-prepared to handle the patient flow seamlessly. From scheduling and lead calls to treatment presentation, every step of the patient journey should be meticulously planned. Just as the patient journey guides them toward accepting the treatment, equal attention must be given to the clinical workflow. Consider surgical, restorative, and lab aspects, focusing on Full Arch treatment in each area to deliver exceptional outcomes that meet or exceed patient expectations.

Execute

Craft a strategic marketing plan designed to attract an ideal patient population. Foster leads through personalized and patient-specific team interactions and optimize your schedule to accommodate consultations. Establish actionable goals and key performance indicators

(KPIs) for your team and marketing campaigns. Develop a cohesive branding strategy that incorporates pricing and financing options. This stage of the Full Arch journey marks the launch of your practice, and every element must align to drive success.

Process

Last but certainly not least, meticulous project oversight and management are paramount. Track metrics and report on the success of each step, adjusting your strategy based on specific results. Carefully select vendor partners and assess their ability to deliver on the agreed-upon standards of success. Managing this aspect of the Full Arch treatment therapy introduction with intent can save months of growth retardation and tens of thousands of dollars for your bottom line.

The addition of Full Arch treatment therapy can be a truly rewarding experience, both financially and professionally, for any clinician. By establishing a detailed plan prior to launch and executing it with precision, you can ensure that the outcome not only meets the needs of the patients you serve but also benefits your team members and boosts the practice's bottom line.

In conclusion, one must treat every patient as a family member. This advice must remain on your mind every time you present a treatment plan. We all have seen patients being overtreated with the Full Arch procedure. Present all possible treatment options and help guide the patient on the right path then let them make the decision. Set expectations as we know: everything before is an explanation and anything after is an excuse.



Dr. Riad Almasri



Greg Essenmacher

Emergence Profile concepts applied to implant prosthetics and peri-implant health

By: Burney M. Croll, DDS, Academy News Guest Contributor

At the American Academy of Fixed Prosthodontics Crown and Bridge February 1977 meeting, I presented my research, "The Emergence Profile of Natural Tooth Contour." The original purpose to study Emergence Profile (EP) in natural tooth contour was to establish hygienic shapes to manage bacterial plaque accumulation on fixed prosthetics supported by natural teeth.

Photographic data analysis (Croll 1980) revealed that straight EPs for dental restorations facilitate the convenience and effectiveness of oral hygiene procedures approximating the gingival sulcus. Emergence Profiles considered as tridimensional geometric shapes can provide models for implant restoration design and oral hygiene methods to deal with the bacterial plaque maintenance procedures recommended to patients.

Prosthetic restorations range from simple individual tooth replacement to complex multi-abutment implant-supported prosthetics requiring comprehensive solutions. In the esthetic zone, implant shape and location often do not coincide with natural tooth location and root shape. The depth and location of the implant can facilitate or complicate the restoration shape as it reaches the free gingival margin.

González-Martín et al. 2020 illustrate contour management of implant restorations in the esthetic zone. Yi et al. 2020 reported statistically greater marginal bone loss and prevalence of peri-implantitis when Emergence Angle is greater than 30 degrees and the EP is convex. With bone level implants, multiple implant locations distally exhibited greater peri-implantitis.

Shimchuk AA et al. 2020 reported an 8.7% prevalence rate for peri-implantitis (per implant site) and 15.2% in

subjects who had received implant treatment using the 2017 criteria of American Academy of Periodontology/ European Federation of Periodontology. As we focus on reducing the incidence of peri-implantitis, it's important to understand EP concepts applied to implant prosthetics and peri-implant health.



Drs. Burney M. Croll and daughter Wendy M. Croll Halpern, OF past president

Dental laboratory technicians as integral members of the multidisciplinary team currently have limited guidance designing the implant-restoration interface facilitating oral hygiene management to ameliorate the risk of peri-implantitis. It's imperative for dentists to work in partnership with dental laboratory technicians to establish the EP shapes that facilitate oral hygiene measures to lower the risk of peri-implantitis. Dentists should also discuss EP related issues with dental hygienists as they play an important role in monitoring and the maintenance phase of implant therapy.

References for this article are available via scanning this QR code.



President's Message... (continued from page 4)

fashion. As a new user to social media, I can see why these platforms are so popular!

Lastly, I would like to remind you to mark your calendars for the 2024 AO Annual Meeting, scheduled to take place in Charlotte, NC, March 7 - 9. This event presents a special opportunity to connect with colleagues, forge global friendships, and gain insights into the most advanced knowledge, techniques, and concepts. If you haven't already done so, please save the date and make plans to attend. I encourage all of you to seize this exciting

opportunity to leverage the conference to learn from and network with professionals from around the world.

Thank you for your unwavering support and continued engagement of AO. I hope to have the pleasure of seeing all of you in Charlotte next year, and in the meantime, I hope to see you on our social media platforms.

Best regards,
Hom-Lay Wang



Osseointegration Foundation looks ahead to strong, strategic year

Under the leadership of esteemed leader and Academy of Osseointegration (AO) past President and AO Life Fellow, **Russell D. Nishimura**, DDS, the Osseointegration Foundation (OF) continues in its mission to provide staunch support in collaboration with AO and many areas of implant dentistry.

"It's pretty exciting and gratifying to follow in the footsteps of those individuals who preceded me, many were icons in implant dentistry, and many were from our regular membership," says Dr. Nishimura, OF 2023-2024 president. "What's great is they all saw the vision that the Osseointegration Foundation could be and all of its great works. It's also kind of somewhat daunting because there's a lot of activities that need to happen and the OF provides a lot of that financial support."

Academy News staff recently had the opportunity to have a fireside chat with Dr. Nishimura to get his thoughts about the coming year. The following are some excerpts from that interview.

What is OF's role in the world of implant dentistry?

The Foundation has been rooted for decades in education and research associated with implant dentistry. It's one thing to have research but you need to get it out into practice and OF has supported that since its inception. The recent AO Summit the Foundation co-sponsored is a great example of how we take the best and research in education and then promote the results to a global audience.

OF also supports our young clinicians that are joining AO maybe for the first time or early in their careers. We have travel stipends to help them attend the Annual Meeting in person because it's one thing to see things online, but it's another to be here in person, actually get that personal

networking and help them develop their career visions and aspirations. Last year OF spent over \$21,000 in this endeavor.

We also support research on a broader level. More than \$150,000 was spent last year in supporting basic translational, clinical and restorative research. That always turns out to be a great thing for young researchers as well as for the general science of implant dentistry, and that's an awesome work in progress.

Then we have direct care for patients that are in need and AO members can provide that assistance, up to \$10,000 per patient. More than \$60,000 was spent last year on that alone. We also have a new initiative coming from AO past President **Amerian D. Sones**, DMD, MS, who has created the OF Research and Education Fund in the name of donors to fund new and related education and research activities. Our global audience has really been amazing because of the exceptional people committed to this program.

Who should support the Foundation?

I think it's really important to understand when it comes time to renew, members should donate to the Foundation. Non-member dentists can also donate. It should not just be limited to dentists. Patients can donate. Companies and those who are interested in oral health and implants who support oral health can donate and should want to contribute to OF. We're realizing oral health is an important part of general health and implants are an important

part of improving the oral health of our patients, and OF supports a wide variety of pathways that lead to better oral health for all of our patients.

One can conveniently make a donation to the Foundation by simply texting "osseo" to 50155,

where options for one-time or on-going donations can be selected. We hope to add more members to our official OF donor board that is displayed at the Annual Meeting for donation of \$500 or more.

One of the things that I would like to see the Foundation become more involved is our global footprint and that's something that we can always work on because our membership is so diverse and from so many countries that we can help in many ways in the future.

Along with Dr. Nishimura, the OF slate for 2023-2024 is as follows:

Officers

President: **Russell D. Nishimura**, DDS
Vice President: **Hans-Peter Weber**, DMD
Secretary/Treasurer: **Mehrdad Favagehi**, DDS, MS
Past President: **Andrea L. Henderson**, DDS

Directors

Amerian D. Sones, DMD, MS AO immediate past president (1 year)
Nipul Tanna, DMD, MS
Harriet K. McGraw, DDS
Lesley A. David, DDS
Binnaz Leblebicioglu, DDS, MS, PhD



AO events and CE calendar

Tuesday, October 17, Noon EDT

Digital Dentistry 2.0:
Implant Workflow
Paul Zhivago, DDS, PhD

Tuesday, November 7, Noon EST

Dental Implant Occlusion
Sang Lee, DDS

Thursday, November 16, Noon EST

Host-related Risk Factors Affecting
Peri-implant Tissue and Stability
Binnaz Leblebicioglu, DDS, MS, PhD

Wednesday, December 6, Noon EST

Platelet Rich Fibrin: What Should
We Expect?
Erhan Firatli, DDS, PhD

Wednesday, October 25, Noon EST

Restorative Implant Dentistry: Digital
Planning or Conventional?
Sandra Al-Tarawneh, DDS, MS

Tuesday, December 19, Noon EST

Advanced Techniques in
Bone Augmentation
Muhammad Saleh, DDS, MS

Correction

In Volume 34 Number 2 2023, the name of one of the Academy's new Fellows was incorrect. The correct name listed should have been Sun-Jong Kim, DDS, MSD, PhD, MPA. *Academy News* regrets the error.



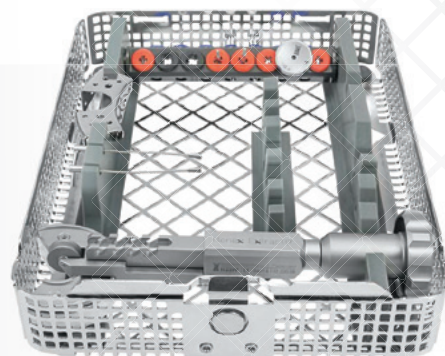
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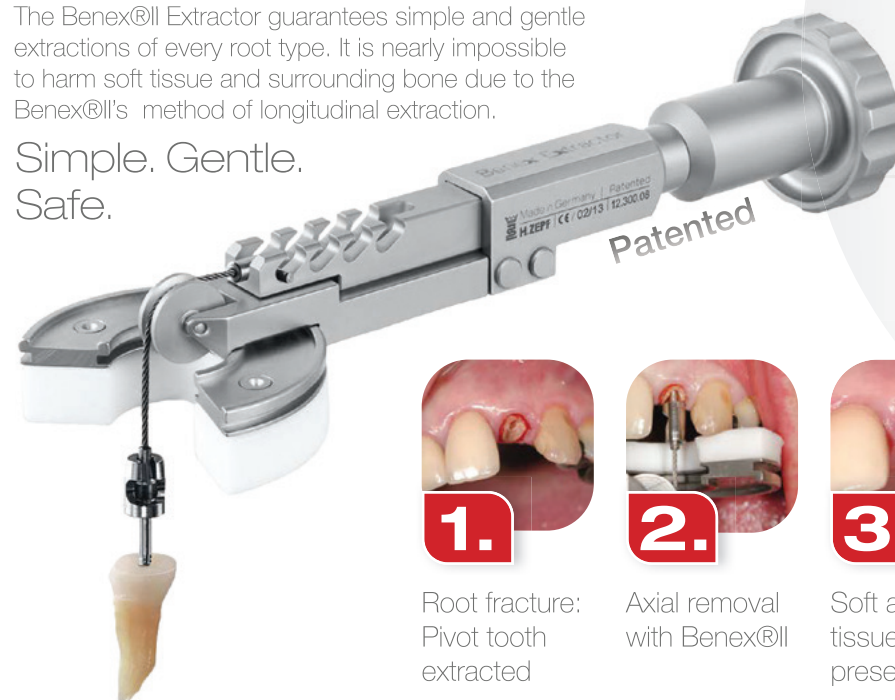


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TEAMWORK

by Team Fugazzotto and McGraw

Academy News Editorial Consultants Paul A. Fugazzotto, DDS; and Harriet K. McGraw, DDS

**Alone, we can do so little;
together, we can do so much.**

Helen Keller

In speaking with a number of team members, who have held various positions in their respective offices, it quickly becomes obvious that practice culture often contributes to the crisis dentistry faces with regard to assembling and maintaining cohesive, high functioning teams.

Stephanie Phillips, a hygienist with decades of experience in general and periodontal practices, defines a team as "...willing to work with and for each person together. Whatever needs to be done, whether it's trash, wiping down a toilet, whatever has to be done, everybody has to be willing to do what is necessary. All team members must want to step in whenever there is a problem or a need."

The word "auxiliary" must be reassessed, both in terms of whom it encompasses, and the value bestowed upon such inclusion. If an auxiliary is someone who "contributes to

patient care and the positive environment of the practice," as suggested by Dr. **Greg Phillips**, a highly experienced and astute periodontist in Columbus, IN, then auxiliaries include assistants, hygienists, "front of the office" team members, and anyone else who interfaces with patients.

Tracy Butler, an internationally recognized consultant on team building and its impact on practice success, believes, unequivocally, that the most significant barrier to building a cohesive and successful team is the mindset of the doctor-owner of the practice. "Mindset drives behavior." Tracy states, "It really boils down to one word, culture. You can have all the strategies, all the systems, all the value drivers, all the books, and all the courses, but at the end of the day, culture will eat that strategy for breakfast."

The dreaded front office versus back office wars, which the vast majority of practices acknowledge as a significant problem and/or concern, are the result of a lack of understanding, by the doctor and all the team members, of the critical role each individual plays in ensuring a positive patient experience, and enjoyable working environment.

Continues on page 12

TEAMWORK *(continued from page 11)*

A more nuanced understanding of intra-office inter relationships is necessary if the desired goals of positive patient experience, team fluidity and efficiency, team retention and practice profitability are to become realities. Multiple types of relationships between auxiliaries and doctors, and between doctors, are constantly in play throughout the day.

Where does each team position “rank” in the private practice hierarchy, whether it be front office, back office, owning doctor(s), or associate doctor(s)?

The answers received were surprising, and often discouraging. Theoretically, intra-office relationships could be those of employer-employee; employee-employer; or colleague-colleague. In this context, team member perceptions were surprisingly one dimensional, and ultimately self-limiting.

Front of the office team members did not see themselves as auxiliaries, as defined above, and always perceived their relationships with the owning doctor(s) as employee – employer. Relationships with associate doctor(s), unless the doctors were in the midst of buying the practice, were placed in relationship limbo.

The majority of hygienists viewed themselves as auxiliaries; felt they were involved in patient care, while the front office was not. They viewed their relationship with the owning doctor(s) as employee-employer. Associate doctors were considered “sorta” doctors.

All the doctors interviewed viewed front office and back-office team members as auxiliaries and employees, associate doctors were colleagues, without regard to the nature of their involvement with patient care. Dr. Greg Phillips further “fine-tuned” his relationship with associates, seeing them as colleagues in clinical matters, but as employees regarding financial matters.

The doctor-owner’s relationship with associate doctors and auxiliaries is ultimately one of employer-employee; the working relationship between the owner-doctor and associate doctors is that of colleagues when discussing therapeutic topics, and that of employer-employee when interacting in the realm of practice “management.”

It is imperative for the doctor-owner to understand that back of the office team members are colleagues when discussing patient care, and to treat them as such. Similarly, front of the office team members are colleagues when addressing financial and scheduling matters.

Team member to team member interactions must always be as colleagues, with unique perspectives and understandings dependent upon their roles in the practice.

Back to Tracy Butler, who is an advocate of the belief model of Amy Edmondson at Harvard Business School, and her concept called “teaming,” which is teamwork on the fly. To quote Tracy directly: “In dentistry, it’s never the same thing twice. Sometimes it feels like it, but we are always dealing with individualized patient needs. We must pivot and rock and roll, and work towards an active agility. The teaming concept builds leaders at all levels, empowers the team to be patient centric, allowing the patient to own their condition and say yes to an option we believe is right for them. A thriving team is teaming, teamwork on the fly.

In “Principles,” Ray Dalio talks about meritocracy, the willingness to “coach up.” As a hygienist all of my career, I had to have the guts to go to my doctor and say “I’m confused. You told me to watch this disease, yet you want us to refer this one. Can you explain your thought process to me, and how I can tell the difference?” As a result, I finally got comfortable and confident in my ability to see the mouth like a doctor, not a mechanic, and, in a professional way, challenge and ask for clarification. The willingness to have difficult conversations broke through a big infection in our practice. It was a case of TTWWADI (that’s the way we’ve always done it).”

The doctor-owner should encourage such questioning and discussions, whether it be one-on-one or in a group meeting. Stephanie Phillips believes these meetings should





be agenda free, allowing for more of a sense of contributing by team members; and that the doctor should “Listen more and talk less” if the situation warrants such behavior.

“To get down to the quick of it, respect motivates me...”

Hugh Jackman

Every auxiliary should expect, and yes demand, to be treated respectfully, and as a colleague when appropriate, by all team members, including the doctor-owner and associate doctor(s). Such respect is crucial to team coherence and continuance.

Qualified team members rarely remain at practices where they feel personally disrespected. Increased remuneration cannot take the place of appreciation, positive reinforcement and encouragement. According to Stephanie Phillips, this appreciation “can take many forms, ranging from a simple thank you to lunch or treats at the office, all going out to dinner or a team building exercise.” Monetary shortcomings will, of course, hasten the departure of highly valued team members. However, while monetary rewards alone may delay the departure of a qualified, caring, team member, said team member will eventually leave for “greener” pastures sooner if they feel underappreciated or disrespected.

Dr. **Paul A. Fugazzotto** was fortunate enough to work with five team members for over 30 years each, who all retired as a result of COVID. When asked why they remained with Dr. Fugazzotto for so long, none of them mentioned compensation as the primary reason. While acknowledging they “always felt they were fairly paid,” their comments included “I always felt respected; You

were always good and kind to us; we always knew we were doing the best thing for the patient; it was fun.”

Lest you believe that such good fortune was generational and believe that “people (employees) aren’t like that anymore,” consider the following: Dr. Fugazzotto was able to replace the two hygienists who retired, with recent graduates who had both once worked with him as assistants, they went to hygiene school “hoping to come back and work with Dr. Fugazzotto, because you always do what is best for the patient.” During the last holiday season, one of the young hygienists sent Dr. Fugazzotto the following email: “Thank you SO much for all the opportunities you have given me. I love my job, I love working for you, and I love learning every day. I can’t wait to learn even more from you in 2023!”

Dr. **Vaughn McGraw** practiced periodontics in Northern Michigan for 45 years. His practice drew from a large geographic area, where patients sometimes traveled over two hours to see him. On those drives, patients would pass multiple practices that could provide implant treatment. How Dr. McGraw and every member of his team treated each other, the patients, the referring doctors and their team members, contributed as much to the success of the practice as the quality of care provided.

Patients are keenly aware of the interactions between doctor/team members and amongst team members. They are put at ease when they know their comfort and care is everyone’s primary focus. Having the doctor share the credit with an auxiliary following successful completion of a challenging treatment plan boosts the doctor’s and the team member’s credibility. Similarly, not speaking disparagingly about another dentist or coworker puts one in a more favorable light.

Continues on page 14

TEAMWORK *(continued from page 13)*

Linda Reichman has decades of experience managing periodontal practices, and offers the following guidance to doctors: "When a team member cares deeply about both the practice's success and the quality of patient care; about the culture of the office and the wellness of fellow team members; when they believe their work with the practice is an extension of themselves with regard to time and emotional commitment; respect them and treat them fairly and they will stay forever. There is nothing more expensive for a practice than to lose such a teammate."

Every employee has the right to know what is expected of them, to be treated kindly and respectfully, to be emotionally and monetarily compensated for their commitment to the practice's success, and to believe they are making a difference in the lives of the patients.

Every employer is entitled to the same considerations and is justified in expecting an employee to fulfill the duties which were agreed upon, in the context of the practice's culture and ethos.

It is the doctor-owner's responsibility to ensure that this practice culture is in place, and that every employee is "on board," whether it be a front of the office team member, a back of the office team member, or an associate doctor. Failure of the doctor-owner to do so, and to act quickly and decisively if this is not the situation with a given team member, is inexcusable and highly destructive to practice culture, demoralizing to the team, and ultimately ruinous with regard to patient care and practice profitability.

Keeping such a cancerous individual in place because "they are going to retire soon" or because "it isn't that bad," while excellent team members depart and patient

care suffers, is nothing less than management cowardice. Dismissing an employee with a toxic attitude always boosts office morale and improves team cohesiveness. The result is a more uplifting atmosphere, and happier team members and patients.

The team mindset demands critical self-evaluation by the doctor-owner and takes time and effort to bring to fruition. Is it all worth it?

Tracy Butler believes so, stating that "when everyone is able to communicate and we have a clearly defined clinical philosophy, filled with transparency, it breeds trust amongst the team and the patients - "Man, I'm in the right place" - it takes a lot of workload off the doctor-owner. **Yes, it takes time to slow down before you speed up.** But when the doctor-owner is willing to build leaders at all levels, the doctor spends more time doing the type of dentistry they love. They delegate what they don't want to do."

Linda Reichman is positive that such a culture "turns your entire team into ambassadors for you and your practice. Team members have conversations with patients in a more comfortable, effective atmosphere than when a patient is speaking to a doctor."

**The most important measure
of how good a game I played
was how much better I'd made
my teammates play. Create
unselfishness as the most
important team attribute.**

-Bill Russell-

NBA great and Olympic champion

Dr. **Philip Melnick**, a general dentist and subsequently a periodontist for decades, offers the following summation: Teamwork within a dental office plays a crucial role in improving patient care. It provides enhanced efficiency, comprehensive treatment planning, improved communication between team members and the patient, continuity of care, cross-training and support, patient education, and quality assurance.

Promotion of effective communication, streamlined workflows, and collaborative decision-making, ultimately results in improved patient care, superior treatment outcomes, and a higher degree of patient satisfaction.

**Going farther together, instead
of going fast and going alone.**

African proverb



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From diagnosis to treatment of the failing dentition: Why you need to know the new periodontal classification system

By Academy News Editorial Consultant Lourdes Ann Christopher, DDS, MS; and Academy News Editor Mehrdad Favagehi, DDS, MS

When a tooth is missing, most dentists agree that a dental implant should be considered. However, there is no consensus for when to replace a compromised tooth with an implant. The decision-making process is commonly subjective, relying on an inconsistent and flawed method for assigning prognosis even for teeth with the same diagnosis. As a result, our patients too often receive conflicting treatment recommendations by different dentists.

Some say the answer is to be more evidence based. But according to the latest definitions of evidence-based practice, treatment is based on three concentric areas: scientific research, the clinicians' capabilities, and patient preferences.

So, it shouldn't be a surprise to see an oral and maxillofacial surgeon or prosthodontist practicing in an implant surgery center focusing on full mouth All-on-X rehabilitation to be more likely to recommend implants compared to an endodontist or periodontist with a practice focused on saving compromised teeth. Being evidence based is helpful, but not enough to solve the problem of contrasting treatment recommendations by different dentists for the same problem.

In the traditional General Practitioner (GP) based practice model, GPs serve a more neutral role as their decisions aren't limited by their own expertise and capabilities. The GP acts as the gatekeeper or the quarterback to lead a multi-disciplinary team approach to patient care. GPs are well positioned to focus on the patient, their histories, conditions, health, oral hygiene, and long-term goals to refer the patient to a specialist with the best match. As a result, patients benefit from having a less biased approach by their doctors as they seek to choose the best treatment options that fit their preferences.

Today, the dental practice landscape is rapidly changing. Many patients seek treatment at implant centers without referrals or involvements of a GP, or their GP themselves may operate an implant center in their practice and may be more biased towards offering implant treatment instead of conservative dentistry to save compromised teeth.

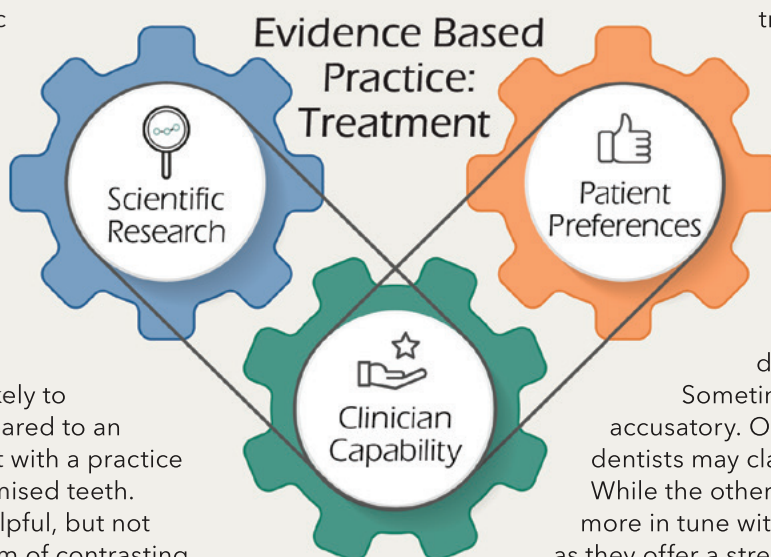
In our practices, we routinely see patients for second opinions after the patients were told they must have teeth removed and replaced with implants due to a "failing dentition." In too many cases, we find that the patients weren't told that their problems were

treatable with conventional periodontal and dental treatment focused on saving teeth. As a profession, where should we draw the line for saving compromised teeth vs. replacing them with implants?

Most of us have heard the debates from both sides.

Sometimes the arguments become accusatory. On one side, conservative dentists may claim they're more ethical. While the other side may argue that they're more in tune with what their patients want as they offer a streamlined dental implant treatment approach in one day or a short time.

Some view this debate as a black and white clash of ethics versus commercialization in dentistry. But the issue is much more complex. It's also about two legitimate philosophies of patient care. Unfortunately, flaws in our traditional diagnosis and classification systems have deepened the divide further. Root caries or a diagnosis of severe chronic periodontitis doesn't necessarily suggest whether a tooth could be saved. Consequently, dentists may recommend differing treatments for the same diagnosis based on their subjective view of the prognosis of compromised teeth and their assumptions about how successful they perceive implant replacement to be. Ultimately, confused patients receive conflicting treatment recommendations from different dentists.



Part of the problem is with our traditional diagnosis systems. For example, a diagnosis of severe chronic periodontitis is elusive. It may refer to a 6 mm loss of periodontal attachment in the form of 2 mm of gingival recession + 4 mm probing depth with zero mobility and no bleeding in a healthy 80-year-old patient with good oral hygiene. Ironically, the same diagnosis of severe chronic periodontitis could also apply to a 30-year-old uncontrolled diabetic, two packs a day smoker with lacking oral hygiene who presents with teeth with 6 mm probing depths, spontaneous bleeding, and severe hypermobility. The weaknesses in our traditional diagnosis systems are contributing to the perplexity of the debate about when to replace compromised teeth with implants.

In the field of medicine, when a patient is diagnosed with a serious illness such as cancer, both the patient and clinician are further directed toward the best treatment by a classification system grounded on the severity of the condition, as well as evidence-based prognosis. Brain cancer treatment is very different for a stage 1 neuroblastoma in a child with 95% favorable prognosis versus the same diagnosis but a stage 4 classification for a high-risk older patient.

In dentistry, like in medicine, we need a classification system based on risk factors and prognosis to help us guide our patients from diagnosis to treatment. That's exactly why there is a new classification for periodontal diseases.

If you're a current dental student, faculty member, recent graduate, or someone who keeps themselves updated about periodontal diseases, you already know about the new classification system developed by the American Academy of Periodontology (AAP), and the European Federation of Periodontology (EFP) in 2017, which is now recognized by the American Dental Association (ADA), insurance companies, and many dental organizations.

The classification system for periodontitis is also indispensable for implant dentists who must diagnose and treat "the failing dentition." According to AAP and EFP, this new disease classification framework introduces a multi-dimensional staging and grading system for periodontitis, like what is used in medicine. This system considers risk factors, severity, rate of disease progression, treatment complexity, bone, and tooth loss due to periodontitis. Additionally, it highlights the individualized and complex nature of the disease in each patient and his or her expected response to treatment.

Now with the new periodontal classification system, the same 6-7 mm probing depth or periodontal attachment loss can be characterized further based on risk factors, rate of disease progression, bone loss, treatment needs and other factors as a stage 3, grade A - a good candidate for tooth maintenance or a stage 4, grade C - a good candidate for full mouth rehabilitation.

The new periodontal classification system enables us to be more precise, evidence-based and provide more objective treatment recommendations. As we help patients decide which teeth to keep and which to replace with implants, every implantologist should use the new periodontal classification system.

*QR Link: Downloadable Practice
Resource: Chairside Guide to
Periodontitis Staging and Grading*



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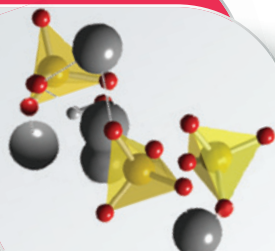


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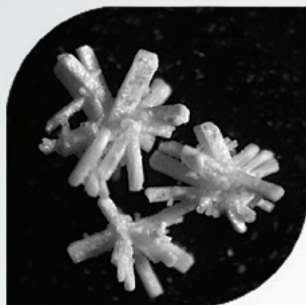
1. Ganz (2002) 2. Artzi (2003) 3. Valen (2002) 4. Spivak (1990) 5. Ricci (1992) 6. Jensen (1998)
Radiographs courtesy of German Murias DDS, ABO/ID



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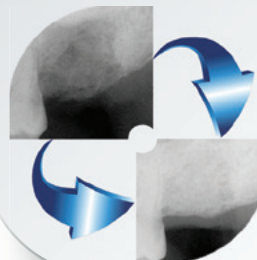


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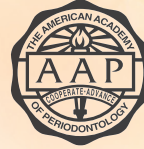


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Joint AO/AAP consensus conference planned for prevention and management of peri-implantitis

The Academy of Osseointegration (AO) is partnering with the American Academy of Periodontology (AAP) to organize a joint consensus conference in August 2024 in Chicago to review the best scientific evidence for prevention and management of peri-implantitis. The top leaders in the field, including researchers, clinicians, and academicians, will be invited to review the evidence and provide us with an update about peri-implantitis prevention and management.

Preparation work has already started by AO and AAP co-chairs: Drs. **Hom-Lay Wang** and **Paul Rosen**, respectively.

In 2017, the European Federation of Periodontology (EFP) and the American Academy of Periodontology (AAP) held a joint consensus conference to develop a new classification of periodontal and peri-Implant diseases and conditions. Their findings reported in 2018 have been widely adopted.

The 2017 workshop proceedings published in 2018 included, for the first time, a new classification for peri-

implant diseases and conditions. Of note is the distinction between peri-implant mucositis and peri-implantitis. Peri-implant mucositis is characterized by bleeding on probing and visual signs of inflammation but no progressive bone loss. Peri-implantitis, a plaque-associated condition occurring in the tissue around dental implants, is diagnosed when there is inflammation of mucosal tissue and subsequent progressive loss of supporting bone. Peri-implant health is identified by the absence of visible inflammation and bleeding on probing.

The timing of the 2024 AO-AAP summit is significant because of the 2017 introduction of standardized classification of peri-implantitis, accumulation of scientific data, advances in implant designs, and technologies such as lasers, biologics, and tissue regeneration.

Both AO and AAP are leaders in Evidence Based Dentistry (EBD). The joint summit will allow the world top experts to collaborate as they assess the best scientific reports for prevention and management of peri-implantitis.



thelogicofscience.com

AO annual Outstanding Dental Student Award reaches 1,000 recipients

While school is back in session for many students, others who were honored at graduation are taking their first steps toward their professional careers, thanks to an annual award bestowed by the Academy of Osseointegration.

Since 2005, the Academy's annual Outstanding Dental Student in Implant Dentistry Award has recognized more than 1,000 students around the U.S., including 47 students from the Class of 2023.

Nominated by their respective schools, each student receives a complimentary year of AO membership,

subscription to the *International Journal of Oral & Maxillofacial Implants (JOMI)*, \$500, certificate, and registration to AO's 2024 Annual Meeting, which is set for March 7 - 9 in Charlotte, NC.

Below are several photos received from thankful recipients and their respective schools. To view the full list of honorees, please scan the following QR code.



Daniel Armenteros, DMD, Nova Southeastern University College of Dental Medicine



Irene Kontoglannis, Rutgers University School of Dental Medicine



Nourhan Elkhatib, Tufts University School of Dental Medicine



Yoan Blanco, University of Puerto Rico School of Dental Medicine



On bone graft materials

By: Brian L. Mealey, DDS, MS; Academy News Guest Contributor

Bone grafts are an essential part of implant dentistry, whether used for ridge augmentation or ridge preservation prior to implant placement, sinus augmentation, treatment of peri-implant defects, or other procedures. Due to the different types of available bone graft materials, it can be difficult to decide which materials to use in which applications. Bone grafting materials each have properties that may be helpful or detrimental in implant procedures.

In some applications such as ridge preservation, we want the graft material itself to be completely replaced by new bone fairly soon after placement. For ridge augmentation or implant placement in esthetic areas, we may want new bone to form but also have the bone graft material stay physically present for an extended period to maintain the form of the ridge present at the time of grafting. For example, if we insert an implant to replace a long-missing maxillary central incisor, the ridge may have a flat appearance that is not esthetic, no matter how well placed the implant. Creation of “root eminences” that give a natural appearance to the final restoration may require a graft material that does not resorb much over time.

Autogenous bone grafts were traditionally considered the “gold standard” of oral bone grafting, and they still have their place. For example, autogenous bone scrapings can be placed against an exposed implant surface and then covered by an allograft or xenograft that will not resorb quickly. But the use of large autogenous grafts such as hip grafts and even oral autogenous blocks is not nearly as common today as two decades ago. We now recognize that autogenous bone grafts often resorb quickly (especially cancellous grafts), and there is a large volume of clinical research showing that non-autogenous bone grafts work well in the same procedures for which autogenous grafts were once “the gold standard.”

Bone grafts can be osteogenic (the graft itself contains living cells that form new bone matrix), osteoinductive (the graft induces osteoblast precursors to form new bone, primarily through the release of bone-inductive proteins that “turn on” osteoblast precursors to become osteoblasts), and/or osteoconductive (the graft acts as a scaffold on which osteoblasts create new bone matrix).

Autografts taken from the patient being treated, allografts obtained from human organ/tissue donors and xenografts taken from species other than man all have osteoconductive properties and serve as good scaffolds for new bone formation. Xenografts do not possess osteoinductive properties; they serve as osteoconductive scaffolds.

Mineralized allografts such as mineralized freeze-dried bone (MFDBA) also act as good scaffolds, but they do not induce new bone formation. If MFDBA is implanted into a non-bone site such as a muscle, it becomes encapsulated by fibrous tissue and no new bone forms because the mineralized allograft is not inductive. In order for MFDBA to release its inductive proteins, demineralization of the graft material must occur at the site where it is implanted.

Conversely, when the allograft is demineralized during preparation of the bone at the tissue bank, the demineralization process exposes those inductive proteins before the allograft is implanted. When demineralized allograft (DFDBA) is implanted into a non-bone site, new bone forms at that site because the inductive proteins exposed by previous demineralization of the donor bone stimulate differentiation of osteoblast precursors at a site that would not normally form bone without this induction process. The degree of osteoinductivity of DFDBA may depend on certain characteristics of the tissue

Continues on page 22

On bone graft materials... (continued from page 21)

donor, such as age and inherent inductivity of the donor, and well as the processing techniques used at the tissue banks.

Drs. **Gerald Bowers, Jim Mellonig, Robert Marx** and others were pioneers of oral bone grafting research and clinical use. Under their influence, our Periodontics Department at UT Health Science Center at San Antonio, TX has been researching various bone graft materials in implant procedures for the last 15 years. Most of that research has focused on wound healing following tooth extraction and ridge preservation because the extraction site model has excellent healing potential due to the presence of bony walls entirely surrounding the void left by extraction. The results of these studies do not translate directly to anatomical areas with much less native blood supply, such as sinus augmentation and ridge augmentation.

However, many of the principles are similar. Allografts and xenografts used in ridge preservation procedures generally result in vital bone formation between the time of implantation and the placement of a dental implant three-to-five months later, but residual graft particles are still present when the implant is placed.

DFDBA is associated with the greatest amount of new vital bone formation at the time of implant placement three-to-five months after ridge preservation grafting. However, because DFDBA-grafted sites are radiolucent for a long time after grafting, some clinicians don't prefer DFDBA because an implant that is clinically surrounded by bone at the time of placement may look like it is "floating" in the socket on the radiographs. Using MFDBA avoids the issue of radiolucency because the graft material is mineralized and appears radio-opaque; however, using 100% MFDBA results in less vital bone formation than does 100% DFDBA when the implant is placed three-to-five months after grafting.

Many tissue banks now combine MFDBA with DFDBA to get the "best of both worlds"; namely, the DFDBA results in excellent new bone formation, and the MFDBA continues to maintain a scaffold for new bone formation over an extended period of time while also presenting an opaque appearance radiographically. In general, ridge preservation with xenografts results in less vital bone formation at three-to-five months post-grafting than does DFDBA, but similar to MFDBA.

It's likely that vital bone formation continues to increase over time in sites grafted with materials that are not osteoinductive (such as MFDBA and xenografts), but dental implants are usually placed in the early stages of wound healing after ridge preservation – at three-to-five months rather than one-to-two years. For most ridge preservation procedures, my personal preference is a combination of mineralized and demineralized FDBA

(a combination of 70% MFDBA/30% DFDBA is widely available).

It's important to remember that while different bone graft materials may provide different amounts of vital bone early in healing, the survival and success rates of implants appear to be similar among a wide range of bone graft materials used for ridge preservation. Since implants seem to "work" well in ridge preserved sites with a wide array of materials, I choose materials mainly based on early wound healing events because I consider the ultimate goal of ridge preservation to be the following: to maintain ridge width and height after tooth extraction while attaining a level of new bone formation similar to what would occur at the site if ridge preservation was not done.

The principles of bone graft material selection are similar when performing ridge augmentation or sinus augmentation. In these procedures, I usually combine a graft material that will resorb relatively quickly with one that does not resorb quickly. For example, in sinus augmentation my preference is to combine an allograft and a xenograft in approximately 50:50 proportions, rather than either material alone.

Ridge augmentation probably has the widest array of graft material possibilities in my practice. If my implant is going to be placed entirely in a grafted bone site, I prefer to place a combination mineralized/demineralized FDBA product against the native bone, then layer a xenograft over the FDBA before placing a membrane and replacing the flaps ("sandwich technique").

The inner allograft region allows rapid new bone formation to stabilize the implant when it is placed, while the outer xenograft layer remains present for a long time, maintaining ridge form. Conversely, if most of the implant is going to be placed in native bone, with perhaps only the labial portion in grafted bone, I generally use only one of those materials: combination mineralized/demineralized FDBA alone in posterior sites versus xenograft in anterior sites where a "root eminence" is needed (perhaps with some autogenous bone placed directly against the exposed implant surface, then covered with a xenograft layer).

There are several biologic agents that may be useful in ridge augmentation in addition to bone graft materials, but space limitations preclude discussion here. In particularly challenging sites or in patients with higher potential for poor wound healing, biologics added to bone graft materials may improve outcomes.

References for this article are available via scanning the following QR code.



The forbidden fruit in implant dentistry

By: Mehrdad Favagehi, DDS, MS; Academy News Editor

Dr. Mehrdad Favagehi



At the 2023 Academy of Osseointegration (AO) Annual Meeting in Phoenix, we saw Dr. **Rickard Brånemark**, like his father, Prof. **Per-Ingvar Brånemark**, rise on the podium of an AO Annual Meeting to present the next generation of osseointegrated implants.

Osseointegrated orthopedic implants allow double amputees to walk again. But can amputees run faster than when they had their original legs? Dr. Rickard Brånemark pointed to Oscar Pistorius, a double amputee. Oscar, with his prosthetic legs, qualified as a sprinter in the 2012 summer Olympics. Would the next generation of prosthesis be better than the organ or limbs they replace? You may be thinking of Hollywood creations such as the 6 Million Dollar Man or RoboCop?

How about a more realistic Hollywood movie: "Breast Men," is a 1997 movie loosely based on events involving the first generation of breast implants.

Dr. Larson, the inventor, played by Chris Cooper, partners with Dr. Saunders, played by David Schwimmer. They revolutionized plastic surgery as they replaced healthy body parts with implants strictly for cosmetic reasons. They had to convince the medical establishment that patients, and not doctors, should ultimately decide if they should get implants. In the movie, greed drives the plastic surgery team. The plot thickens as silicone implants leak over time and must be replaced, causing a medical, legal and public relations nightmare.

Today, some patients tell us that their implant replacements look better than their original teeth. Some frustrated with having to replace old dental work ask why not skip conventional "dental work" and just replace "bad teeth" with new shiny "implant teeth."

Due to our principles, code of ethics and laws, we don't dare to even think about replacing healthy teeth with implants. What about "bad teeth" that are salvageable?

As we weigh the scales between how "bad" a tooth is versus how "good"

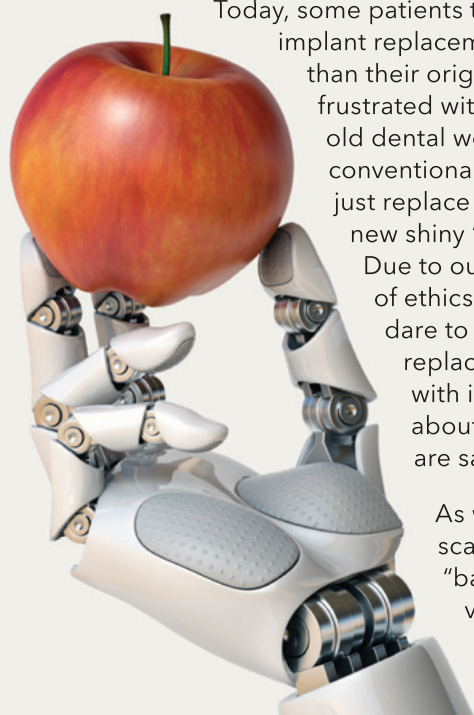
an implant would be, we need to educate our patients that dental implants may not be as "good" as they may presume. Yes, we routinely achieve great outcomes with implants, but we also routinely see implants with problems. More than one out of ten implants present with peri-implantitis.¹ Bone loss around implants is much more difficult to treat than bone loss around teeth. Could this be because dental implants are foreign bodies lacking a periodontal ligament? The periodontal ligament is a dynamic biological interface between teeth and bone allowing flexibility, regeneration, and maintenance of the attachment between teeth and bone. This is typically the kind of information that is overlooked by patients when they compare natural teeth to dental implants.

In unique clinical scenarios, with careful consideration, the doctor and the patient may see merit in using implants to replace otherwise salvageable teeth. But from its beginnings, implant dentistry was reserved for failed or failing dentition as a last resort. Using implant dentistry as an alternative to conventional dentistry for salvageable teeth is crossing the line, an overreach, the forbidden fruit which can erode public trust in our profession.

Every time we remove a tooth or body part, we cross a biologic, ethical and legal line. There is no justification for systematically removing salvageable teeth to replace them with implants.

¹ Diaz P, Gonzalo E, Villagra LJG, Miegimolle B, Suarez MJ. What is the prevalence of peri-implantitis? A systematic review and meta-analysis. BMC Oral Health. 2022 Oct 19;22(1):449. doi: 10.1186/s12903-022-02493-8. PMID: 36261829; PMCID: PMC9583568.

The Editor's Editorial is intended to contribute to the dialogue on issues important to implant dentists. The views expressed in the editorial do not necessarily reflect the policy of the Academy of Osseointegration or its board of directors. To provide feedback about this edition, or contribute as a guest author, please contact me at mfavagehi@yahoo.com. We will endeavor to publish pertinent comments or views when space permits.



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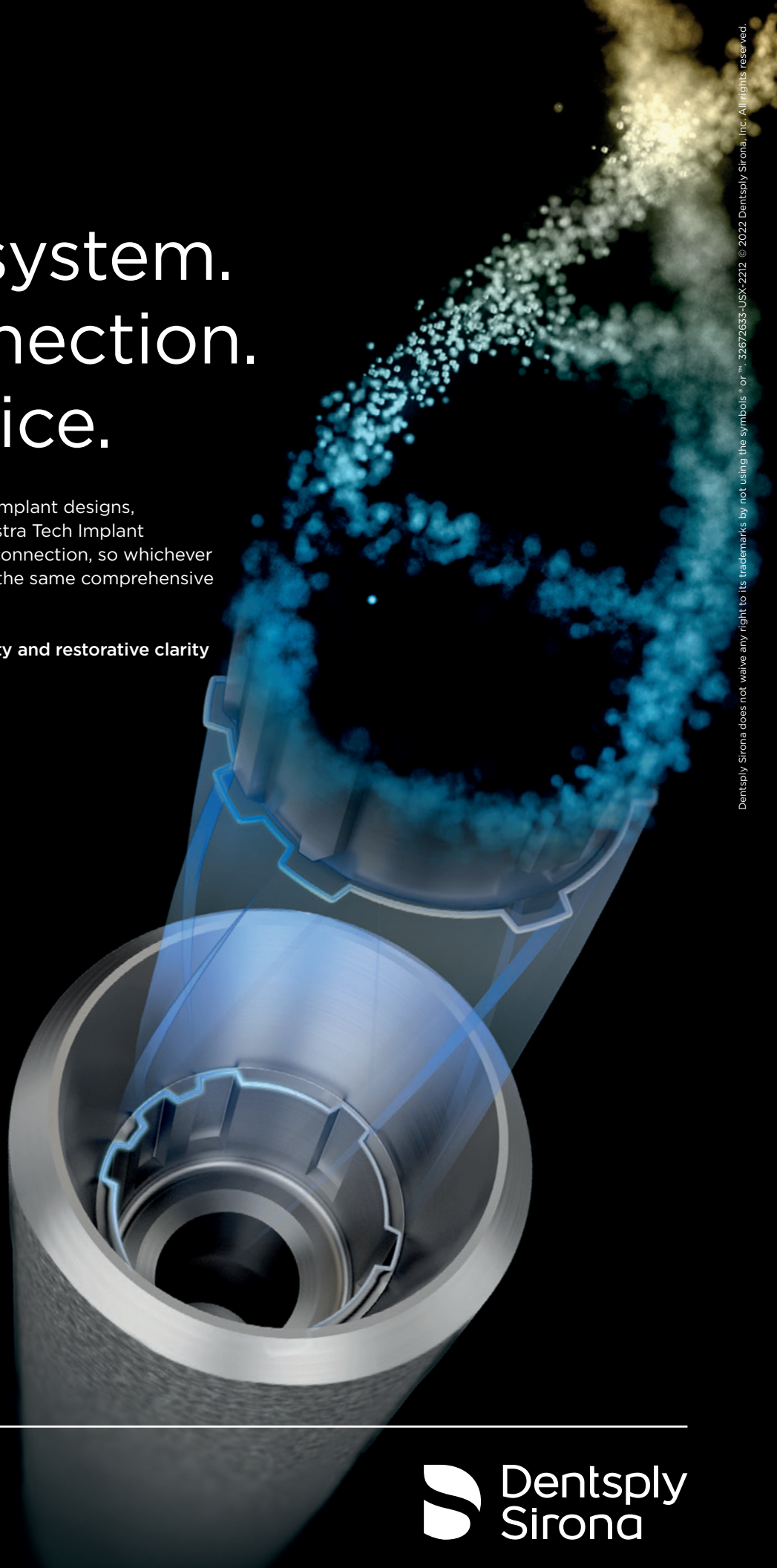
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Academy welcomes 442 new members

The Academy of Osseointegration (AO) is pleased to welcome 442 new Active, Affiliate, Faculty, International Affiliate, and Student Members who joined between August 2022 and August 2023. The Academy has approximately 4,000 members in more than 70 countries around the world.

Active Members

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