

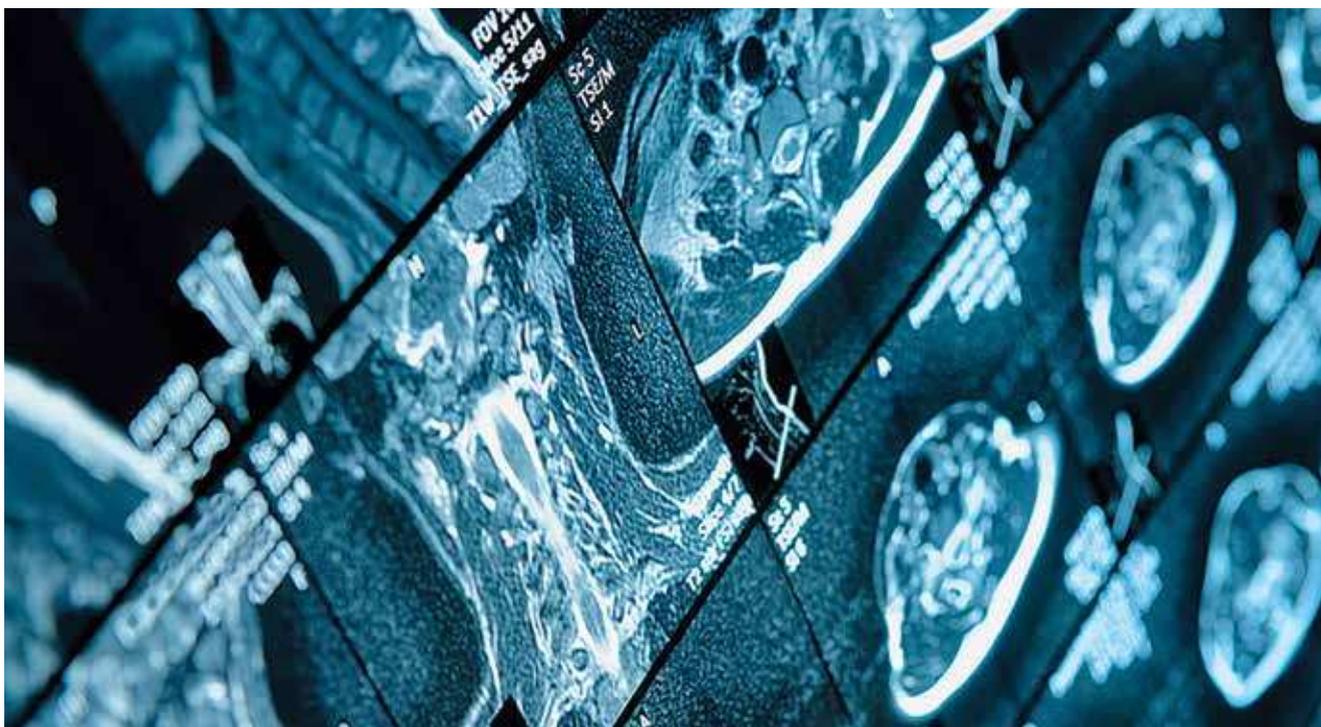
IMPLANT TRIBUNE

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AO Orlando preview: The sinus floor bone graft



Photo/Provided by the Academy of Osseointegration: Getty Image, Kondor83

Dr. Jensen on 'understanding when, how and if'

By Ole Jensen, DDS, MS

Twenty years after the watershed Sinus Consensus Conference of 1996, co-chaired by Leonard Shulman, Michael Block, Vincent Lacono and myself, we editorialized in "The International Journal of Oral & Maxillofacial Implants," highlighting five areas of significant change that have occurred since that time. These five areas will be the topic of a session, titled "Sinus Consensus Update Session," that I will moderate on March 17 as part of the Academy of Osseointegration 2017 Annual Meeting.

The state of the science of the sinus floor bone graft is not settled. There remains significant controversy, and therefore ongoing innovation, as it relates to augmentation procedures to enhance osseointegration. The goal of this course will be to present key topics that have improved our understanding of when and how and if to do the sinus floor procedure.

One could say that the profession does not yet know what to do about aeration of the posterior maxilla with regard to tooth replacement, which is why every specialty must contribute to making treatment planning a success.

Here are five key developments that

have informed our thinking:

- Graft material: At the time of the consensus conference in 1996, the use of autogenous bone, including mandibular, iliac, tibial and cranial graft, was championed, while alloplast and allografts were thought to be inferior (though the consensus conference found otherwise). Since that time, the use of xenogeneic bone has been found to be highly effective, if not the most effective, for sinus floor augmentation — a mostly space-maintenance process with new bone formation migrating from the sinus floor. In fact, space maintenance without any graft material at all forms bone. Though the use of biomimetics are effective in the sinus floor and are an excellent tissue engineering advance, the use of growth factors and BMPs are generally reserved for more challenging cases.

- Increased reports of combined alveolar and sinus-floor grafting suggest that orthoalveolar form, that is, the formation of ideal shape and size of the alveolus for emergence profile restoration is favored by clinicians even in the back of the mouth. Combined alveolar procedures done in conjunction with the addition of bone to the sinus floor gains bone mass for osseointegration as well as helping to establish long term gingivo-alveolar health.

- Technical advances since 1996 in performing the sinus graft now involve using an alveolar approach instead of a lateral approach. Transcrestal osteotomes are used vertically to intrude the sinus floor, sometimes simultaneously alveolar splitting to gain alveolar width.

- For the fully edentulous setting, with the advent of the "all-on-4" method, sinus grafting is generally avoided even in the severely deficient patient. Implant angulation circumvents the sinus by gaining apical anchorage into pyriform, nasal crest, pterygoid or malar bone structure, thus avoiding the need for sinus floor bone augmentation, a significant change in treatment prerogative since 1996.

- Almost iconoclastic is the resurgence of the use of short implants, even ultra-short implants that avoid sinus penetration or are only minimally invasive, having been shown in three-year studies to be just as effective as sinus grafted implant sites using longer implants.

The overarching theme of the symposium is that ongoing clinical and basic science developments continue to strike a balance between biological efficacy and simplicity of treatment.

To view the full program guide and register to attend, visit <http://meetings.osseo.org>.



Research shows how smoking affects healing after dental implant treatment. Photo/Provided by freeimages.com

Research: Implant treatment plan should be adapted for smokers

By Dental Tribune International

A Chinese study comparing implant stability and peri-implant tissue response in heavy smokers and non-smokers has found that smoking did not affect the overall success of implant surgery, as all implants achieved osseointegration without complications at least by the end of the 12th week after placement. However, smoking did cause the bone around the implants to heal more slowly; thus, implants began to osseointegrate considerably later than in the non-smoking group.

Research has demonstrated that smoking can negatively affect implant and bone integration. In order to improve treatment outcomes and avoid implant failure, surgeons need to have a precise understanding of how the habit will affect the healing process.

In the current study, 45 ITI (Straumann) implants were placed in the partially edentulous posterior mandibles of 32 male patients, including 16 who were heavy smokers and 16 who did not smoke at all. Implant stability and peri-implant tissue response were assessed at three, four, six, eight and 12

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Belgian researchers develop implant that releases antimicrobial drugs to prevent, fight infections

By Dental Tribune International

Bacterial and fungal pathogens can form a biofilm on dental implants that is resistant to antimicrobial drugs, including antibiotics. As a result, these implants pose a significant risk of infection. A multidisciplinary team of researchers at KU Leuven in Belgium has developed a dental implant that gradually releases such drugs from an integrated reservoir. The antimicrobial liquid could help prevent and fight infections.

"Our implant has a built-in reservoir underneath the crown of the tooth," explained lead author Dr. Kaat De Cremer. "A cover screw makes it easy to fill this reservoir with antimicrobial drugs. The implant is made of a porous composite material, so that the drugs gradually diffuse from the reservoir to the outside of the implant, which is in direct contact with the bone cells. As a result, the bacteria can no longer

form a biofilm."

In the laboratory, the implant was subjected to various tests for use with chlorhexidine, a universal mouthwash with a powerful antimicrobial effect.

The study shows that the *Streptococcus mutans* bacterium, a major contributor to tooth decay, is prevented from forming a biofilm on the surface of the implant when the reservoir is filled with the mouthwash.

Furthermore, biofilms that were grown beforehand on the implant could be eliminated in the same way. This indicates that the implant would be effective in terms of both preventing and curing infections.

This study, titled "Controlled release of chlorhexidine from a mesoporous silica-containing macroporous titanium dental implant prevents microbial biofilm formation," was published online in January in Volume 33 of the *European Cells and Materials* journal.

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weeks post-surgery.

Although implants in both groups achieved osseointegration by the end of the 12th week, the healing process differed significantly between non-smokers and heavy smokers. In non-smokers, stability improved and implants began to better integrate into the bone after the second week.

In the smoking group, however, implants only began to osseointegrate and become more stable after the third week. Despite successful short-term outcomes in both groups, smokers experienced more problems, including greater bone loss around the implants and deeper soft-tissue pockets. However, smoking had no significant effect on plaque build-up or sulcular bleeding in the study group.

In light of the findings, the researchers suggested that surgeons might need to change their standard implant loading schedule for patients who smoke heavily.

In addition, smokers should be aware that their habit promotes the loss of marginal bone and the further development of dental pockets and could thereby lead to complications even after osseointegration, the researchers concluded.

The report, titled "Effect of heavy smoking on dental implants placed in male patients posterior mandibles: A prospective clinical study," was conducted by researchers at the First Affiliated Hospital of Xi'an Jiaotong University in Xi'an in China. The results were published in the December 2016 issue of the *Journal of Oral Implantol-*

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Speakers announced for educational festival Dentsply Sirona World 2017

By Dentsply Sirona Staff

Dentsply Sirona, The Dental Solutions Company™, released the initial lineup of speakers confirmed to lead groundbreaking breakout sessions at Dentsply Sirona World in Las Vegas from Sept. 14-16.

This year's educational festival will offer 11 educational tracks. Attendees, as they did for SIROWORLD 2016, will be able to create their own schedule and attend breakouts all within one track or mix and match sessions from a variety of tracks for a more comprehensive experience.

The current confirmed speakers and their respective tracks are listed below:

Business:

- Dr. Joshua Austin
- Dr. Uche Odiatu

CEREC:

- Dr. Sameer Puri
- Dr. Mike Skramstad

Endodontics:

- Dr. David Landwehr
- Dr. Cliff Ruddle

Imaging:

- Dr. Chris Farrugia
- Hootan Shahidi

Implantology:

- Dr. Lyndon Cooper
- Dr. Jay Reznick

Periodontics and hygiene

- Dr. Scott Benjamin
- Kim Miller

Practice management

- Shannon Richkowski
- Dr. Uche Odiatu

Prosthetics and Lab

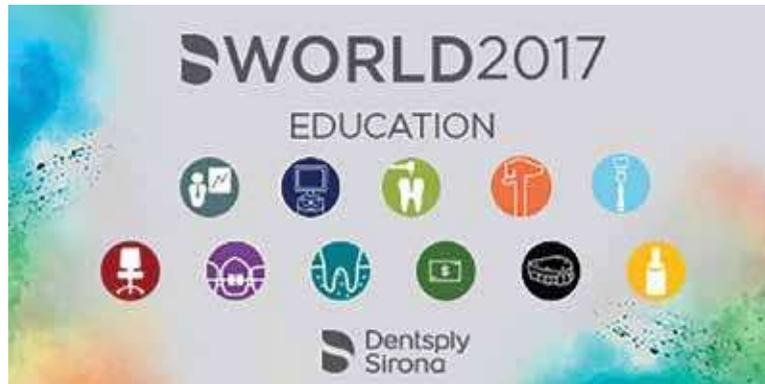
- Thomas Blanchette
- Dr. Javier Vasquez

Restorative

- Dr. Alan Atlas
- Dr. Tim Bizga

Additional speakers and sessions will be announced as they become available.

"The roster of talented speakers scheduled to engage and educate our attendees is sensational, and we're just getting started!" said Director of Clinical Affairs and Dentsply Sirona World Dr. Mike DiTolla.



"We're inviting a new generation of speakers, along with our veteran speakers, to 2017's event to further diversify the education offered and continue to provide the ultimate experience for attendees."

Dentsply Sirona World is the second annual Ultimate Dental Meeting hosted by Dentsply Sirona. At The Venetian and The Palazzo in Las Vegas, this year's event is expected to attract an even greater number of dental professionals than SIROWORLD or CEREC 30.

From now through March 31, "Super Early Bird" pricing is available for all dental professionals who would like to save on registration to the meeting. Doctor registration is available for \$1,495 (regularly \$1,995). Staff, spouse, guest, technician registration is just \$895 (regularly \$1,195), plus attendees can buy two registrations and get one free. Visit www.dentsplysironaworld.com to learn about additional registration types and specials.

VIP registration is available for all registration types for an additional \$500. VIP includes reserved seating and upgraded dining options as well as special admission to Dentsply Sirona World entertainment events. For any questions, contact the help desk at events@dentsplysironaworld.com or by phone at (844) 462-7476.

Geistlich Biomaterials to offer 'Multidisciplinary Treatment Solutions for Peri-Implantitis Symposium'

By Geistlich Biomaterials Staff

Geistlich Pharma North America Inc. is proud to announce, with its symposium sponsors, an interactive and didactic program covering topics around peri-implantitis.

"Multidisciplinary Treatment Solutions for Peri-Implantitis," a three-day event taking place June 9-11 in Chicago, will feature a surgical and non-surgical hands-on workshop as well as general sessions from world-class presenters.

This multidisciplinary symposium is for all dental professionals who are responsible for or interested in the placement, maintenance, restoration and preservation of dental implants.

"Peri-implantitis is not a regional problem; it's a worldwide problem, so coming together [at this symposium] for hands-on training and an honest discussion about what we know and what we still need to learn is what this conference will be all about," said Dr. Stuart Froum, co-organizing chairman. "It will stress a multidisciplinary approach with both surgeons and restorative dentists learning how collaboration on diagnosis and treatment can increase successful outcomes."

Global exchange of high-level ideas



Photos/Provided by Geistlich Biomaterials

and information will be carried throughout the event. The hands-on workshops, on June 9, will be limited in attendance and are sure to sell out quickly.

These interactive programs will review "Non-Surgical Periodontal Therapy," presented by Dr. Marisa Roncati of Italy, and "Corrections for the Prevention and Management of Peri-Implant Diseases," presented by Prof. Dr. Frank Schwarz of Germany.

General sessions will take place on June 10 and June 11 and will include topics such as:

"Prevent Peri-Implantitis and Plan for Long-Term Success," presented by Dr. Myron Nevins, U.S.

"Identifying Factors Associated with

Peri-Implant Bone Loss," presented by Dr. Paul Rosen, U.S.

"Surgical Regenerative Therapy of Peri-Implantitis," presented by Prof. Dr. Frank Schwarz, Germany

"Managing Peri-Implant Disease From a Laser Perspective," presented by Dr. Sam Low, U.S.

"Peri-Implant Diseases: Understanding Etiology and Risk," presented by Dr. Joseph Fiorellini, U.S.

"A Regenerative Algorithm for the Treatment of Peri-Implantitis," presented by Dr. Froum, U.S.

"Peri-Implantitis Associated with Machined or Rough Surfaces," presented by Dr. Massimo Simion, Italy

"Peri-Implant Disease and the Restor-

ative Dentist," presented by Dr. Chandur Wadhvani, U.S.

"Is it Possible to Restore the Complete Health Around Implants Affected from Peri-Implant Disease?" presented by Dr. Marco Ronda, Italy

"What Role Does the Restoration of Implants Play in Peri-Implantitis?" Dr. Stephen Chu, U.S.

More details on the symposium can be found at <http://www.geistlich-na.com/en-us/events/symposium/peri-implantitis-symposium/>.

About Geistlich Pharma North America Inc.

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Price reduced for BruxZir Milling Blanks

By Glidewell Dental Staff



The entire line of BruxZir Milling Blanks, including BruxZir Anterior, BruxZir Shaded, BruxZir Shaded 16 and BruxZir HT, are set to receive a significant price decrease across all milling blank thicknesses (12 mm, 15 mm, 20 mm and 25 mm) to enable dental laboratories of any size to provide Glidewell Dental's zirconia material. Photo/Provided by Glidewell Dental

Glidewell Dental, provider of high-quality clinical and dental laboratory products, announced recently a price decrease for BruxZir® Milling Blanks, the material used to fabricate authentic BruxZir Solid Zirconia crowns and bridges.

The entire line of BruxZir Milling Blanks, including BruxZir Anterior, BruxZir Shaded, BruxZir Shaded 16 and BruxZir HT, will receive a significant price decrease across all milling blank thicknesses (12 mm, 15 mm, 20 mm and 25 mm) to enable dental laboratories of any size to provide the most trusted and prescribed zirconia material the industry has to offer, according to Glidewell.

In addition to the price reduction, a 10-mm-thick milling blank will join the BruxZir Shaded 16 line. This new blank size aims to empower dental labs with even more versatility and access to the monolithic revolution by creating less material waste during the fabrication of copings and frameworks, the company asserts.

Dental laboratories that take advantage of this competitive price decrease, along with the new BruxZir blank size, will be able to offer unmatched zirconia quality to their dentists, Glidewell states. The BruxZir material is backed by extensive clinical testing and validation — in contrast to clinically unvalidated zirconia and the potential risks associated with generic discount zirconia.

Furthermore, dental laboratories that offer authentic BruxZir restorations can bolster their zirconia business by joining the Authorized BruxZir Laboratory program. As part of this program, labs benefit from far-reaching marketing efforts at no cost, including nationwide mailers, quarterly ads, and email campaigns. These results-driven marketing initiatives are crafted on member labs' behalf, with the mission to build brand awareness and help customers find labs that offer BruxZir zirconia.

For more information on the line of BruxZir Milling Blanks and the Authorized BruxZir Lab program, call (888) 303-3975 or visit bruxzir.com.

BruxZir Milling Blanks are manufactured by PrismaTik Dentalcraft, Inc., the medical device manufacturing division of Glidewell Dental, in Irvine, Calif., in an ISO-certified facility that operates under FDA Current Good Manufacturing Practices (CGMPs). Featuring a diverse team of dentists, scientists, material researchers and other experienced professionals, PrismaTik Dentalcraft strives to develop the industry's most innovative products to bring comprehensive treatment to patients across the economic spectrum, according to the company.

About Glidewell Dental

Glidewell Dental, based in Newport Beach, Calif., is an industry-leading provider of high-quality dental lab products and services to dental professionals in select markets around the world for a low cost. Established in January 1970 by Jim Glidewell, CDT, the company has a decades-long heritage of technological innovation.

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