New scaffolding repairs severe teeth and jawbone defects

Scientists from Norway develop method for bone regeneration

Dental researchers at the University of Oslo have developed a new artificial scaffolding that aids bone regeneration. Within a few years, they hope to market their invention to help patients with serious teeth and jaw damage caused by severe periodontitis, mandibular cancer, infection or trauma.

According to the researchers, the artificial scaffolding could be used in particular for cases in which the gap between two bone fragments is too wide, or when large parts of the bone have been damaged through surgical removal or radiotherapy. The scaffolding helps the body repair such serious defects, the researchers explained.

"With the new method, it is sufficient to insert a small piece of synthetic bone-stimulating material into the bone. The artificial scaffolding is as strong as real bone and yet porous enough for bone tissue and blood vessels to grow into it and work as a reinforcement for the new bone," said Prof. Ståle Petter Lyngstadåas, dean of research at the Department of Biomaterials at the university’s Institute of Clinical Dentistry. The scaffolding can be produced like cinder blocks and cut into individual shapes to fit into specific bone defects. It is manufactured from a mixture of water and ceramic powder, which is poured through foam rubber that was designed to look like trabecular bone. The ceramic powder consists of medical-grade titanium dioxide monodisperse nanoparticles, which are also widely used as an additive in sweets, toothpaste and baked goods. Once the mixture has solidified, it is heated to a temperature that causes the foam rubber to dissolve into water vapor and carbon dioxide and the nanoparticles to ligate into one solid structure. It has an open porosity of 90 percent, containing mostly empty space that can be filled with new bone.

- See SCAFFOLDING, page A2
Antibacterial agent boosts toothpaste effectiveness

Adding triclosan and copolymer to fluoride toothpaste appears to help reduce plaque, inflammation, bleeding and tooth decay

Regular use of fluoride toothpaste containing triclosan and an antibacterial agent is a copolymer, which helps prevent the triclosan from being washed away by saliva, reduces plaque, gingivitis and bleeding gums and slightly reduces tooth decay compared with fluoride toothpaste without those ingredients, according to a new review in The Cochrane Library.

“We are very confident that adding tri- closan and copolymer to a fluoride toothpaste will lead to additional benefits, in terms of less plaque, inflammation, bleeding and tooth decay,” said Philip Ridley, a researcher at the University of Manchester in England, and a co-author of the study. But he added, “We don’t know how important the effects are clinically.”

Tooth decay and gingivitis are the main causes of tooth loss. Both are caused by plaque, the film of bacteria that builds up on teeth, and if left untreated, can lead to periodontitis, a more serious gum disease that can cause pain and loose teeth.

A team from the Cochrane Oral Health Group reviewed 30 published studies of toothpastes containing triclosan and copolymer.

Their analysis of the combined data found a 22 percent reduction in plaque, a 22 percent reduction in gingivitis, a 48 percent reduction in bleeding gums, and a 5 percent reduction in tooth decay (cavities) compared with toothpaste with fluoride alone. However, they did not find significant evidence that triclosan/copolymer toothpaste reduced the incidence of periodontitis more than toothpaste without the combination. No adverse reactions to triclosan or the copolymer were reported.

The findings of the review are not surprising, according to Clifford Whall, PhD, director of the American Dental Association’s Seal of Acceptance Program and Product Evaluations. The ADA’s Council on Scientific Affairs has independently reviewed data on the safety and effectiveness of triclosan/copolymer for reducing cavities, plaque and gingivitis. The council concluded that there were sufficient clinical studies that showed these toothpastes reduced the incidence of cavities, the presence of plaque and gingivitis.

Most of the studies of toothpastes evaluated in the Cochrane report were directly or indirectly supported by companies that make toothpaste. Only three studies appeared to be independent, according to the reviewers. The independent or government-funded research community and industry should work together to research antibacterial agents in toothpastes, Ridley noted. “But we would argue for complete independent control of the research, including study design, conducting the study and ownership of the data.”

(Sources: Science Daily, Health Behavior News Service, Center for Advancing Health)

Fluoride toothpaste recommended at child’s first tooth

To fight cavities in children, the American Dental Association’s Council on Scientific Affairs is updating its guidance to caregivers that they should brush their children’s teeth with fluoride toothpaste as soon as the first tooth comes in. This new guidance expands the use of fluoride toothpaste for young children.

To help prevent children’s tooth decay, the CSA recommends that caregivers use a smear of fluoride toothpaste (or an amount about the size of a grain of rice) for children younger than 3 years old and a pea-size amount of fluoride toothpaste for children 3 to 6 years old.

For half a century, the ADA has recommended that patients use fluoride toothpaste to prevent cavities, and a review of scientific research shows that this holds true for all ages,” said Edmond L. Truelove, DDS, chair of the CSA. “Approximately 25 percent of children have or had cavities before entering kindergarten, so it’s important to provide guidance to caregivers on the appropriate use of fluoride toothpaste to help prevent their children from developing cavities.”

Dental decay is the most common chronic childhood disease, with more than 16 million children suffering from untreated tooth decay in the United States, according to the U.S. Centers for Disease Control.

CSA previously recommended using just water to brush the teeth of children younger than 2 years old and to brush the teeth of children 2 to 6 years old with a pea-size amount of fluoride toothpaste. The new guidance is intended to provide caregivers that they should brush their children’s teeth with fluoride toothpaste as soon as the first tooth comes in.

(Sources: American Dental Association)

After being formed and placed, the scaffolding ends up with an open porosity of 90 percent, containing mostly empty space that can be filled with new bone and blood vessels. Instead of degrading over time, it remains an integral part of the repaired bone, working as reinforce-

ment. (Photo/Provided by University of Oslo)

Because the scaffold has shown positive results in preliminary animal studies, the researchers are currently planning to undertake clinical trials on patients with periodontitis and damaged mandibular bone. They also hope that orthopedists will show interest in the new method.

The new material was developed in collaboration with Corticalis, a Norwegian company that specializes in innovative biomaterials. The researchers are currently looking for an industry partner to market their invention.

(Source: University of Oslo)
The 44th edition of the Journées dentaires internationales du Québec will take place from May 23–27 at the Palais des congrès de Montréal.

Hosting the Association of Prosthodontists of Canada

One of the biggest changes with the 2014 edition of the meeting is that the JDIQ will host the Association of Prosthodontists of Canada. Among the benefits expected from this joint venture, which also involves the Association of Prosthodontists of Quebec, will be a larger number of top speakers in implant and restorative dentistry — and a presence at the meeting of a larger number of prosthodontists from across Canada.

The annual meeting of the Ordre des dentistes du Québec continues to be a highly attended dental meetings in North America — and one of the biggest bilingual meeting. In 2014, organizers expect to host more than 12,000 delegates from around the world.

More than 100 lectures and workshops in English and French

The meeting will feature a scientific program with more than 100 lectures and workshops presented in English and French. The JDIQ meeting is described by organizers as being Canada’s most highly attended bilingual convention.

More than 225 exhibitors will occupy approximately 500 booths in the exhibit hall, making it one of the largest in Canada. The exhibition will be open Monday and Tuesday, May 26 and 27, and it will feature a continental breakfast on both days for the early risers as well as a wine and cheese reception to close out both afternoons.

Featured 2014 speakers already in the lineup include Drs. Dale Miles, Robert Langlais, Steven Olmos, Stephen Niemczyk, Manor Hass, Jonathan Bregman, Michael Di Tollia, Gerry Kugel, Karl Kerner, Joe Blaes, Jason Smithson, Brian Novy, Robert Gutneck, Tieraona Low Dog and James Mah, to name just a few.

For more information about the meeting, you can call (800) 361-4887, visit online at www.odq.qc.ca — or email congres@odq.qc.ca.

(Source: Ordre des dentistes du Québec)
There is a new host venue for the Toronto Academy of Dentistry Winter Clinic. The single-day, Friday, Nov. 14, meeting will be held at the Toronto Sheraton Centre in the heart of downtown Toronto. Photo/Provided by Starwood Hotels & Resorts Worldwide Inc.

The 77th Annual Winter Clinic is on the move, with its 2014 meeting day scheduled for Friday, Nov. 14, at the Toronto Sheraton Centre. The new venue presents a great opportunity to add an evening or even the rest of the weekend in downtown Toronto to the end of the single-day conference. The Sheraton Centre is connected to the financial and entertainment districts by way of the PATH, a 16-mile underground network of shops and services.

A wide selection of shopping destinations, the Mirvish Toronto theatres, world-class dining and major Toronto museums are steps away.

Many major Toronto attractions close to venue
Among the attractions: Art Gallery of Ontario, Royal Ontario Museum, Hockey Hall of Fame, Harbourfront, Casa Loma, Ontario Science Centre, Niagara Falls, Casino Niagara, Casino Rama, Ontario Place, Air Canada Centre, Rogers Centre (formerly SkyDome), Eaton Centre, Holt Renfrew and Yorkville Shopping District.

The Winter Clinic is the largest one-day dental convention in North America, attracting dental professionals who come to learn from world-class speakers and explore and save on products and services.

This year’s clinical program covers a broad spectrum of topics and includes: an examination of how digital technology is transforming workflow in the dental office; demonstrations of cutting-edge tools and equipment; specialized techniques for prosthetic tooth repositioning; the use of lasers in periodontal therapy; a discussion of current views on the use of X-rays as a diagnostic tool; advice on the latest legal requirements for health and safety in the dental office; and how to meet the demands of your modern dental practice through healthy habits and humour.

You can bring the whole team to share the knowledge. The single-day event features 24 separate programs in contemporary dentistry, offering something for all.

Learn more about the Winter Clinic and register online by visiting www.tordent.com.

(Source: Toronto Academy of Dentistry)
A number of new events are on the schedule for the 2014 Greater New York Dental Meeting. Among the highlights:

- The World Implant Expo, four days of innovations in implantology. This new event will be held simultaneously with the main Greater New York Dental Meeting, from Nov. 28 through Dec. 3.
- An expanded ColLABoration Dental Laboratory Meeting, bringing together dentists and lab technicians. This dental laboratory meeting, presented with Aegis Publishing, is expected to surpass its inaugural 2013 numbers: 1,183 technicians and technician students and 50 exhibitor booths.
- An expanded exhibit floor with more than 1,700 exhibit booths filled by more than 700 companies. The 2014 GNYDM exhibit hall dates are Nov. 30 through Dec. 3.

Again for 2014, the GNYDM, which is sponsored by the New York County Dental Society and Second District Dental Societies, will remain free of any registration fees.

Other distinctions that help make the GNYDM stand out include:

- This is the only major annual dental meeting with a four-day exhibit hall.
- The meeting features more than 300 educational programs.
- One C.E. unit can be earned simply by exploring the exhibit floor.
- The live dentistry arena on the exhibit floor features eight live patient demonstrations during the course of the meeting. There is no admission charge.
- Multilingual programs are presented in Spanish, Russian, Portuguese, French and Italian.
- A laser pavilion features a variety of educational sessions focusing on all aspects of laser dentistry.

Three airports — Newark Liberty (EWR), Kennedy (JFK) and La Guardia (LGA) — and hotel discounts make it easy to attend the meeting and enjoy all that New York City has to offer during the holiday season.

Preregistration is scheduled to open online in April. Visit www.gnydm.com for more information and the latest update on registration.
MouthMobile takes dentistry to underserved

Aspen Dental, on a mission to give America a healthy mouth, starts ‘The Healthy Mouth Movement’

By Aspen Dental Staff

Living in one of the wealthiest countries in the world, it would be easy to assume that access to dental care isn’t a problem in the United States. But sadly, this is not the case. The statistics are sobering. Last year, 100 million Americans didn’t visit a dentist. More than 47 million people live in places where it is difficult to access dental care, and the U.S. Department of Health and Human Services estimates that there is a shortage of nearly 4,600 dental health professionals in the United States.

Yet while the health care debate rages on, the issue of oral health is largely absent from the discussion. For many, dental care is a luxury, not a priority. When times get tough, it is not surprising that people put off visits to the dentist. For far too many Americans, dentistry is a luxury, and not a priority. Patients who struggle financially put off dental care and live with infection and pain — and that has an impact on their overall health and quality of life.

When an emergency strikes, people turn to our nation’s hospitals. In April, a new analysis from Rutgers University found that the use of emergency departments for dental care — especially by young adults in low-income communities — poses a substantial challenge for our nation.

One of the organizations that is responding to the oral health crisis is Aspen Dental.

‘Community giving’ initiative to serve thousands, raise awareness

Aspen Dental is on a mission to give America a healthy mouth and has started The Healthy Mouth Movement, a community giving initiative designed to deliver free dental care to thousands of people in need in communities across the United States.

Through the Healthy Mouth Movement, Aspen dentists and team members across 27 states will devote a day to providing dental care to those who need it most — free of charge, no questions asked. And the newly constructed Aspen Dental MouthMobile, a fully equipped dental office on wheels, is going directly into communities to not only provide free service, but raise awareness of the importance of oral health.

Teaming with Oral Health America and local partners

During the past several months, The Healthy Mouth Movement has been traveling around the country, teaming up with Oral Health America and local partners along the way.

Dentistry is a generous profession. There are myriad ways to give back, whether through individual volunteer efforts or through great organizations such as Missions of Mercy and the American Dental Association’s Give Kids a Smile program. And by working together, we can make a difference — one patient at a time.
3 reasons your website should be optimized for mobile users

Diana P. Friedman, MA, MBA

As of January 2014, 58 percent of adults Americans owned a smartphone. With the continued advancements in cellular networks and expanded device accessibility, a rapidly increasing number of existing and prospective patients are using mobile devices rather than a desktop browser to browse your practice website.

A strong mobile presence helps you get in front of prospective patients at the moment they’re looking for your practice. If your site doesn’t look good or function properly on a smartphone, it won’t take long for prospective patients to move on to one that does. Here are three reasons you want to ensure your practice website is mobile optimized.

1. Mobile is taking over — When you consider 87 percent of smartphone users access the Internet using their phones, it’s a safe bet that the vast majority of prospective patients are looking at your site on one of these devices. Without a mobile optimized website, you damage your brand and encourage them to seek out competitive providers.

2. Mobile users take action — Today 92 percent of smartphone users seek local information on their device and 89 percent take action after looking up local content. You want that action to be to contact your office for an appointment. If your site is hard to read on the mobile device or does not provide a “click-to-call” phone number, that action will likely take place with another dental care provider.

3. Mobile users will quickly move on — 61 percent of consumers who visit a website that isn’t mobile-friendly will leave to visit a competitor. This fact alone should sound an alert that your practice website needs to be optimized for mobile devices.

The bottom line is that not having a mobile-optimized site can hurt your relationships with current patients, and drive away prospective ones.

Taking the next step

Refraining from optimizing your website for mobile is not an option if you are concerned about sustained practice growth and profitability. The preferred design methodology and the one Google recommends, for a mobile optimized website is called responsive design. A responsive designed practice website will adapt automatically to whatever screen size a patient is using to view it — whether that be a desktop computer, tablet or smartphone. When choosing a company to help market your practice and create a web presence to attract and retain patients, make sure the company has experts in responsive design who work only with the dental industry. With that first step, your efforts to create a mobile-friendly practice will pay off.

References

Program targets older adults’ oral health

Oral Health America, with its Wisdom Tooth Project, aims to reverse growing crisis in U.S.

Oral Health America is a national nonprofit working to improve older Americans’ oral health. Its Wisdom Tooth Project recently launched www.toothwisdom.org, a first-of-its-kind Web portal providing oral health information and local and national resources for older adults, caregivers and oral health professionals. Photo/Provided by Oral Health America

Older adults — the most rapidly growing segment of the population in the United States — are facing a crisis when it comes to oral health. According to a 2013 Harris Interactive survey commissioned by Oral Health America, 23 percent of older adults have not seen a dental provider in five years, 70 percent do not have dental insurance, eight out of 10 uninsured seniors could not pay for a major dental procedure and 33 million live where dentists and clinics are scarce.

Oral Health America, a national nonprofit that aims to change lives by connecting communities with resources to increase access to care, education and advocacy for all Americans, is working to turn these statistics around through the Wisdom Tooth Project™ (WTP), a program that focuses entirely on older adults.

Website supports effort

This past fall, the WTP launched www.toothwisdom.org, a first-of-its-kind Web portal providing oral health information and local and national resources for older adults, caregivers and oral health professionals.

At the same time, the WTP released “A State of Decay,” a biennial publication that evaluates states on five leading indicators of adult oral health: adult Medicaid dental benefits, inclusion of older adult strategies in state oral health plans, edentulism, dental health professional shortage areas and community water fluoridation.

The report garnered local and national media attention when more than half of states failed to achieve a rating of 50.0 or greater. Regional symposia also unite diverse groups of health professionals and community leaders with the aim of inspiring strategic change to improve the oral health of older adults.

The WTP’s latest endeavor is Tooth Wisdom: Get Smart About Your Mouth. This health education program will empower older adults who are aging at home to improve their oral health through daily self-care and increase their knowledge about oral health.

Committee vets scientific accuracy

To ensure the program is scientifically accurate and accessible, an older adult advisory committee has been assembled, consisting of professionals who attended last year’s “Collaborative Health Care for Older Adults: A Symposium for Creating Inter-professional Community Models” and have a continued interest in geriatric oral health.

The committee meets regularly to discuss the education program and offer recommendations.

To learn more about Oral Health America and the WTP, you can visit www.oralhealthamerica.org and www.toothwisdom.org.

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By Jennifer Gilbert
Oral Health America

Oral Health America is a national nonprofit working to improve older Americans’ oral health. Its Wisdom Tooth Project recently launched www.toothwisdom.org, a first-of-its-kind Web portal providing oral health information and local and national resources for older adults, caregivers and oral health professionals. Photo/Provided by Oral Health America
Oral cleansing and care line launched

University’s antimicrobial analysis documents formulation’s efficacy

TRIOLOGY™ Professional Oral Cleansing & Care, a line of biologic debriding rinses and serums designed to enhance dental procedures and patient comfort, has recently been introduced to the U.S. dental market. The products, sold exclusively through dental and medical practices, is manufactured by NOWsystem Inc.

TRIOLOGY Debriding Rinse and TRIOLOGY Debriding Serum deliver cleansing powered by Tritiserum™, a proprietary blend of biologic ingredients and carbamide peroxide. The patent-pending formulations integrate with saliva to improve removal of bacteria, fungi, debris and irritants, working both supragingivally and subgingivally. According to the company, this cleansing action, coupled with a balancing of the pH, increases the potential for accelerated healing and reduced pain, inflammation and infection.

TRIOLOGY Debriding Rinse can be used for days or weeks prior to dental procedures to lessen inflammation or infection, or at the beginning of in-office exams to reduce airborne spread of bacteria. Additionally, it is intended for use during and following any dental or hygiene procedures likely to involve bleeding, debriding or supragingival oral wounds, and following dental examinations and procedures to reduce pain.

The rinse, particularly the spray version, can also be used by patients with dry mouth, xerostomia, halitosis and metallic taste disorder. The viscosity of TRIOLOGY Debriding Serum enables the product to stay where it is placed, so the microfoaming action of the carbamide peroxide can flush out bacteria, debris and irritants that can cause gum infection and inflammation.

It is intended for use as an adjunct to the following dental and hygiene procedures for removal of debris and irritants: extractions, root planing, routine prophylaxis, periodontal scaling, gingival curettage, core retention techniques, implant and crown procedures, and operative and postoperative procedures.

According to Dale Winetroub, NOWsystem co-founder and COO, among the studies documenting the efficacy of the TRIOLOGY formulations is an extensive antimicrobial analysis by Indiana University in which TRIOLOGY Debriding Serum and Rinse were shown to have roughly double the germ kill power of chlorhexidine gluconate. He also noted that because TRIOLOGY Debriding Rinse and TRIOLOGY Debriding Serum formulations contain only biologic ingredients and carbamide peroxide, there is no need to limit the frequency of usage.

TRIOLOGY Debriding Rinse and TRIOLOGY Debriding Serum are currently distributed by Goetze Dental and Burkhart Dental. Dental practices in regions where sales representatives from these two distributors are not located can order the product online at www.triologycare.com.

(Source: NOWsystem Inc.)
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Live dentistry sessions are an AACD Scientific Session first

‘Education in the Round’ presented in exhibit hall in partnership with American Dental Association

For the first time ever, live dentistry will be offered at AACD 2014 in Orlando, the annual scientific session of the American Academy of Cosmetic Dentistry.

In a partnership with the American Dental Association (ADA), the AACD will present “Education in the Round,” a live dentistry experience located in the AACD exhibit hall and open to all attendees of the conference.

The goal of live dentistry is to provide attendees with a real-life demonstration of the procedures for which AACD dentists are highly recognized.

Here’s the presenter lineup: Thursday, Dr. Wynn Okuda, AACD accredited member and AACD past president, direct composite veneers; Friday, Dr. John Weston, AACD accredited fellow, prepless veneers; and Saturday, Dr. Brian LeSage, AACD accredited fellow, bonding.

The live dentistry exhibit is expected to draw large numbers of dental professionals to the conference and is of interest to dentists and all members of the dental team.

“Live dentistry will be a huge draw for our attendees to visit the AACD Exhibit Hall,” said Jeff Roach, AACD director of strategic partnerships. “Education in the Round will inspire our attendees and motivate them to take their own work up a notch. Also, the debut of live dentistry at our 30th anniversary meeting just proves how far cosmetic dentistry has come.”

AACD launched 'Your Smile Becomes You' website

Interactive consumer site features smile analysis, Smile IQ quiz, educational content and videos

The American Academy of Cosmetic Dentistry (AACD), the world’s largest nonprofit membership association dedicated to the art and science of cosmetic dentistry, has launched a new consumer website, www.YourSmileBecomesYou.com. With the launch of this site, AACD is embarking on a new campaign aimed to help educate consumers about cosmetic dentistry, encourage them in their pursuit to improve their smiles, and to raise awareness of the importance of seeking out an AACD accredited or member dentist for treatment.

“There are currently many different cosmetic dentistry treatment options for patients, and this website enables the consumer to learn more about these procedures through a less intimidating, more consumer-friendly fun way,” said Dr. Jack Ringer, DDS, AACD, AACD president 2013-2014. “We hope that the ‘Your Smile Becomes You’ website provides consumers with foundational information that will help them to have more informed conversations about their oral health with the right cosmetic dentist in their area.”

The website educates consumers on the types of cosmetic dental procedures that can improve their smiles. The website’s content includes:

• What Does Your Smile Say About You? – A personalized smile analysis tool that uses Facebook to determine what your smile says about your personality.

• A Share Your Smile gallery – A photo gallery where users can upload their smile personality and view the personalities of other users that have also used the analyzer.

• “Your Smile IQ” Quiz – A step-by-step quiz to help consumers determine the procedures that could improve their smiles.

• Explore Cosmetic Procedures – An educational section with consumer-friendly videos showcasing cosmetic dentistry procedures available to patients, such as bonding, veneers and whitening.

The website also features a “Find a Cosmetic Dentist” locator that enables the user to quickly find an AACD accredited dentist or an AACD member dentist practicing near them. “A recent study conducted by Kelton Research (confirms) the importance the public places on an attractive smile. More consumers are willing to pay to fix their teeth than to pay for weight loss,” said Barb Kachelski, AACD executive director. “Knowing this, we built the ‘Your Smile Becomes You’ website to help consumers understand steps they can take to improve their smiles and to showcase the clinical excellence of our AACD member dentists.”

(AACD)
Strength, esthetics drive selection of restorative material in unusual case

The patient was not interested in orthodontic treatment but wanted as much improvement as could be created with restorative treatment

By Drake Laboratory Staff

The case was developed by Drake Laboratory (Charlotte, N.C.) and delivered. Post-op visits consisted of minor occlusal modifications and production of an occlusal splint to be worn at night.

The patient was very pleased with the final result. She is an early-40s female in excellent general health.

The overall patient desire was a bright and white smile with as many improvements as possible. The patient was evaluated multiple times postoperatively to perfect the appearance of the provisional and to evaluate lip support, occlusion and phonetics. The patient was very pleased with the final result.

Fig. 1: For CAD/CAM applications, either the highly esthetic IPS e.max CAD ceramic glass blocks or the high-strength IPS e.max ZirCAD zirconium oxide can be selected, depending on the case requirements.

Fig. 2: The entire upper arch is in need of restorative treatment, so a full arch plan is developed.

Fig. 3: The case is developed by Drake Laboratory, Charlotte, N.C., and delivered. Post-op visits consist of minor occlusal modifications and production of an occlusal splint to be worn at night.

Fig. 4: Final outcome is deemed a success by the restoring dentist and patient. The patient was very pleased with the final result.

In the esthetic restorative material arena, Ivoclar Vivadent once again has found an ideal niche with its IPS e-max® lithium disilicate product. The application as a full contour restorative material provides improved strength and cementability that compares to the original, extremely successful, pressed Empress formulation.

Designed with simplicity and versatility in mind, e-max is available for both the PRESS and CAD/CAM techniques. When utilizing the PRESS technique, two different types of ingots are available: IPS e.max Press, a high-strength glass-ceramic, and IPS e.max ZirPress, an esthetic glass-ceramic that is pressed onto zirconium oxide in a fast and efficient procedure. Pressed flexural strength is 400 mpa.

For CAD/CAM applications, either the highly esthetic IPS e.max CAD ceramic glass blocks or the high-strength IPS e.max ZirCAD zirconium oxide can be selected, depending on the case requirements (Fig. 1).

The nano-fluorapatite layering ceramic IPS e.max Ceram completes the all-ceramic system. This material is used to veneer all IPS e.max components, no matter if they are glass-ceramic or zirconium oxide. Milled flexural strength is 360 mpa.

Case study

The patient presented with a desire to improve the appearance of her smile. She is an early-40s female in excellent general health.

The overall patient desire was a bright and white smile with as many improvements as possible. The patient was not interested in orthodontic treatment and wanted as much improvement as could be created with restorative treatment. The entire upper arch was in need of restorative treatment, so a full arch plan was developed (Fig. 2).

Following standard procedure with cases involving anterior guidance, the procedure began with facebow-mounted models in centric relation. It was determined that a slight increase in vertical dimension was indicated for restorative convenience. Also, the lower occlusal plane was erratic and inappropriate.

A complete diagnostic wax-up was developed to simulate the improved occlusal plane and proposed gingival outline of final restorations at the raised vertical. Incisal edge position, and final restoration contours were developed with this wax-up.

Upon approval, the wax-up was converted to a provisional restoration through the use of a putty matrix. The entire arch was prepared and the provisional was relined to accommodate the preparation discrepancy and gingivaectomy performed at the time of preparation.

The patient was evaluated multiple times postoperatively to perfect the appearance of the provisional and to evaluate lip support, occlusion and phonetics. Once all patient expectations were achieved, the provisional was impressed to be used as the final blueprint for the case.

Final impressions were taken, and the case was mounted in such a way as to cross mount the approved provisional and the die model. A labial incisal matrix was developed, into which the permanent restorations could be built.

Based on its physical and esthetic properties, e-max was chosen as the restorative material. Wax patterns were developed for pressing, simulating a “cut back” upon which final porcelain layering could be accomplished.
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Restored more than 1,400 smiles for a total dollar value of more than $14 million. Currently, GBAS is helping more than 250 patients throughout the United States smile again.

Your support will enable GBAS to help many more patients. Tickets are $40 and can be purchased through the AACD conference registration system. Visit www.aacdconference.com for more information.

Also, be sure to stop by the GBAS Silent Auction, which will take place in the AACD exhibit hall. A wide variety of auction items have been donated, providing attendees lots of opportunities to support GBAS — while also taking home a gift.

Auction items range from dental products to celebrity memorabilia. The silent auction will take place on Thursday from 11 a.m. to 7 p.m. and Friday from 11 a.m. to 2 p.m.

Are you interested in becoming a GBAS volunteer? Or are you interested in spreading awareness about GBAS to patients who might be able to benefit from the program? For more information on how to get involved, you can visit www.givebackasmile.com.

(Source: AACD)
LVI Core I three-day course enables dentist and team to learn together

By Mark Duncan, DDS, FAGD, LVIF, DICOI, FICCMO
Clinical Director, LVI

As a patient, I expect the best care I can find. As a doctor, I want to deliver the best care possible. That takes us to the power of continuing education, and as doctors we are faced with many choices in continuing education.

As a way to introduce you to the Las Vegas Institute for Advanced Dental Studies, or LVI, I want to outline what LVI is about and what void it fills in your practice. The alumni who have completed programs at LVI were given an independent survey, and unlike the typical surveys, 99.7 percent said they love practicing dentistry, and of those surveyed, 92 percent said they enjoy their profession more since they started their training at LVI. That alone is reason enough to go to LVI and find out more.

While the programs at LVI cover the breadth of dentistry, the most powerful and life-changing program is generally reported as Core I, “Advanced Functional Dentistry: The Power of Physiologic-Based Occlusion.”

This program is a three-day course that is designed for doctors and their teams to learn together about the power of getting their patients’ physiology on their side. In this program, doctors can learn how to start the process of taking control of their practice and start to enjoy the full benefits of owning their practice and providing high-quality dentistry.

Whether he or she works in a solo practice or in a group setting, every doctor can start the process of creating comprehensive care experiences for his or her patients.

We will discuss why some cases that doctors are asked by their patients to do are actually dangerous cases to restore cosmetically. We will discover the developmental science behind how unattractive smiles evolve and what cases may need the help of auxiliary health care professionals to get the patient feeling better.

The impact of musculoskeletal signs and symptoms will be explored and how the supporting soft tissue is the most important diagnostic tool you have — not simply the gingiva, but the entire soft-tissue support of the structures not just in the mouth but also in the rest of the body.

Comprehensive care
A successful restorative practice doesn’t need to be built on insurance reimbursement schedules.

An independent business should stand not on the whims and distractions of a fee schedule but rather on the ideal benefits of comprehensive care balanced by the patients’ needs and desires. Dentistry is a challenging and thankless business, but it doesn’t have to be. Through complete and comprehensive diagnosis, there is an amazing world of thank-yous and hugs and tears that our patients bring to us, but only when we can change their lives. The Core I program at LVI is the first step on that journey. That’s why when you call, we will answer the phone, “LVI, where lives are changing daily!”
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