Implant site preservation using a novel post and crown

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Thanks to rapidly advancing technology, the field of implant dentistry is always changing and evolving. Clinicians must be vigilant in their efforts to keep up with new techniques, new products and new technology that could affect treatment planning.

And that’s what makes the publication you are holding right now so valuable.

For this issue of implants, we’ve assembled a collection of articles from a variety of respected names and companies in dentistry. These expert clinicians are sharing their first-hand knowledge and expertise with you. In this issue, you can read about implant site preservation, and you can also learn about blade implants. We also have news on implant events and technology.

But there’s more.

Every issue of implants magazine also contains a C.E. component. By reading the two articles (beginning on Page 6) on “Implant site preservation using a novel post and crown” by Dr. Kalman and “Clinical and diagnostic advantages of PreXion 3-D imaging system” (page 10) by Dr. McEowen, and then taking short online quizzes on each article at www.DTStudyClub.com, you will gain one ADA CERP-certified C.E. credit.

Keep in mind that because implants is a quarterly magazine, you can actually chisel at least four C.E. credits per year out of your already busy life without any lost revenue and time away from your practice. To learn more about how you can take advantage of this C.E. opportunity, visit www.DTStudyClub.com.

Finally, if you are interested in becoming a published author, we are always looking for experienced clinicians to write C.E. articles and offer their expertise to our readers. Contact Managing Editor Sierra Rendon at s.rendon@dental-tribune.com for more information on submitting an article.

I hope you enjoy this issue and that you get the most out of it.

Sincerely,

Torsten Oemus
Publisher

implants

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Restoring quality of life

Patients rely on you in order to eat, speak, and smile with confidence. It can be said, you are actually restoring quality of life.

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Implant site preservation using a novel post and crown

Abstract

Implant site preservation is an important component of diagnosis and treatment planning. Through CAD (computer-aided design), prostheses can be designed with ideal characteristics. By utilizing CAM (computer-aided manufacturing), the clinician has the ability to mill the designed prosthesis with great accuracy.

IPS e.max has been selected as the material for this investigation due to strength and esthetics. The combination of IPS e.max and in-office CAD/CAM technology allows the clinician the ability to create an esthetic and predictable moderate-term provisional to preserve a site for future implant placement.

Introduction

Implant placement in the esthetic zone is the ideal treatment option when diagnostic criteria are satisfied. Finances, however, can act as a barrier to treatment. A moderate-term, esthetic provisional would allow the patient the opportunity to overcome barriers. In-office CAD/CAM technology would allow for immediate prosthesis fabrication.

CAD/CAM stands for computer-aided design and computer-aided manufacturing, respectively. CAD allows the clinician to digitally capture an image of a preparation and then design an indirect (out of the mouth) restoration by using software.

After the ideal restoration has been produced, the design is then fabricated out of a material by a milling machine. E4D is an in-office dental unit (E4D Technologies). IPS e.max is a metal-free, esthetic dental material used in indirect restorations. IPS e.max is composed of lithium disilicate, and its ideal physical and esthetic properties allow it to be the first choice for CAD/CAM restorations. IPS e.max has the ability of detailed CAM production and has strength second only to gold.

Fig. 1. Preparation of tooth #11.
(Photos/Provided by Dr. Les Kalman)
Clinical case

Presentation
A 28-year-old male patient presented with a failed post and core and porcelain fused to metal (PFM) crown. His chief complaint was that the “fake tooth” had become dislodged several times and he requested a long-term solution.

Medical history was non-contributory. Clinical and radiographic examination indicated an endodontically treated central incisor with no apical pathology and a failed post and core/crown restoration. The PFM crown was still cemented to the post and core and lacked a ferrule effect. The post and core/crown had been re-cemented several times in the past.

Diagnosis indicated: endodontic treatment, failed post and core and caries on tooth number #11. Treatment options to replace the missing tooth included: an implant-supported crown, a bridge, a removable partial denture and no treatment.

The patient had interest in the implant option but requested that the old unit be re-cemented. He had several professional and personal obligations that required an esthetic provisional. Finances were a limiting factor. The existing post and core/crown...
was deemed poor and could not be used. Based on the situation, an alternative option was presented to the patient: an indirect IPS e.max CAD/CAM post and core/crown moderate-term provisional that would be fabricated using an in-office E4D unit. Treatment-specific informed consent was given, and the patient agreed. It was decided to generate an indirect CAD/CAM prosthesis due to the investigative nature of the clinical case.

Preparation
Tooth #11: the canal space was cleaned of cement and the remaining tooth structure was prepared as per full porcelain coverage specifications (Fig. 1). A paper clip was inserted into the canal space (Fig. 2). A final PVS impression (Ivoclar) was taken, utilizing a Q-Trays (Research Driven) segmental tray (Figs. 3–5). A bite registration was taken for the CAD/CAM scan (Fig. 6). The patient was dismissed to the waiting room while the prosthesis was fabricated.

Indirect CAD/CAM component
The impression was poured with stone and then digitized by taking several scans of the area with the E4D scanner (Fig. 7). Utilizing CAD technology, the prosthesis was delineated. The CAD software then presented a rudimentary prosthesis based on the parameters selected. Material thickness was then evaluated.

The prosthetic design was further manipulated using the provided software tools until an acceptable result was achieved (Fig. 8).

The CAD design was executed on an IPS e.max block (Fig. 9) utilizing CAM technology (Fig. 10). The prosthesis was removed from the block and assessed for morphology and fit on the cast.

The prosthesis was then stained and glazed (Fig. 11) and fired in the furnace. After firing, the color of IPS e.max changes from purple to tooth colored (Figs. 12 and 13).

The patient returned for prosthetic delivery. The post and crown prosthesis underwent intraoral assessment (Fig. 14). The patient approved the esthetics. The prosthesis was cemented with Multi-link (Ivoclar); occlusion was refined and the restoration was cleaned and polished (Fig. 15).
Discussion

This report represented a clinical investigation, as IPS e.max blocks supplied for in-office CAD/CAM dentistry have not been recommended for posts or post and core/crown combinations. This was due to the fact that block application for posts had been unexplored and that the strength of IPS e.max for posts had yet to be determined.

The CAD software was quite limited and did not have the capability to generate an intra-canal projection. The optical scanner also had limitations, as the angle of acquisition had to be manipulated to acquire digitized data. Finally, the CAM unit’s ability to generate a complex crown unit with a canal projection (post) had yet to be determined.

Several factors were evident that allowed for the completion of this case. The patient requested a “temporary,” highly esthetic procedure until financials permitted the ideal treatment. The inability to use his existing restoration opened up the opportunity for this investigative trial.

The patient’s occlusion exhibited mild overlap and overjet; therefore, occlusal forces would be minimized. The patient was committed to wearing his occlusal appliance. That the adjacent teeth had no other restorations present reinforced the necessity for minimally invasive dentistry.

Conclusions

CAD/CAM technology has been harnessed utilizing IPS e.max to provide for an investigative moderate-term, predictable and esthetic anterior provisional. Further studies are required to: quantify the strength of IPS e.max, assess its role as an intra-canal projection (post) and develop the technology for CAD/CAM procedures.

The potential seems to exist for IPS e.max to act as a predictable, moderate-term and esthetic canal-retained prosthesis. This novel approach will enable site preservation and optimize clinical condition for future implant placement.

Disclosure: Dr. Les Kalman is the co-owner of Research Driven and the developer of the Q-Tray.

References

2. Berlin, M. Wowing The Patient With Chairside CAD/

about the author

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Clinical and diagnostic advantages of PreXion 3-D imaging system

Author_Dan McEowen, DDS

For nearly 100 years, dentists have relied on 2-D radiographic imaging for diagnosis and treatment planning. With the 1999 introduction of cone-beam computed tomography (CBCT), all dentists now have tools available for more accurate diagnosis and treatment. The ability to look at a tooth in any direction and orientation, as well as in 3-D, eliminates much of the guesswork commonly experienced with 2-D radiographs.

We have been limited in most cases to only a buccal-lingual view provided by periapicals, bitewings and panoramic radiographs with the occasional axial view of an occlusal film. Medical CT scans and images began in the early 1970s and were sometimes used by dentists, offering our first multiplaner views.

The adoption of 3-D cone-beam imaging is appropriate and has important advantages for all modalities of dentistry. From every specialist to the general dentist, the increased amount of radiographic information as well as increased accuracy will aid in the most sound diagnosis possible.

CBCT description

CBCT is a single or partial rotation of an X-ray source around the head, capturing X-rays on various flat panel arrays and sensors. The information is converted to a series of axial slices by computed tomography and stored as virtual anatomy in the computer.

With the use of sophisticated software, the dentist is able to view information in several different views, including axial slices (head-to-toe orientation), coronal slices (front-to-back orientation) and sagittal slices (side-to-side orientation), all known as multiplaner reconstructions (MPR). The thickness of each slice can be varied to include more or less information.

Because the voxels (volumetric pixels 3-D) are isotropic, other MPR images can be generated by slices drawn at any angle, curve or thickness through the scan to view areas critical to the final diagnosis. The final view offered by CBCT is a 3-D view that can be rotated and viewed in any direction.

Once again through software manipulation, 3-D images can be viewed as conventional radiographs, maximum intensity projections (MIP), soft-tissue projections and a variety other views.

This nearly endless ability to manipulate the data aids in the diagnosis and identification of:

- disease,
- nerve canals,
- sinus morphology,
- dental caries,
- bone density,
- fractures,
- endodontic pathology,
- implant placement criteria,
- periodontal defects,
- bone pathology,
- fractured teeth,
- iatrogenic trauma,
- TMJ morphology and disease,
- third-molar position
- and many more healthy or diseased conditions.

Early CBCT adoption with implants

The first and primary use of CBCT for early adopters was implant placement. As the scope and the value of the information became better known, dentists of all branches began to see the value of MPRs and 3-D renderings including periodontics, endodontics, oral surgery, treatment of TMJ, orthodontics, implantology and general dentistry.
Clinical periapical and panoramic radiographs for the placement of implants can be misleading with elongation, foreshortening, superimposition and geometrically incorrect data. A look at the implant in the periapical shows no obvious disease to an existing integrated implant.

Clinically, a buccal fistula was present with exudate and slight pain. The CBCT scan (Fig. 1) reveals a more accurate view showing a buccal defect on a sagittal MPR. A surgical flap revealed a dehiscence of the coating of the implant. Removal of the foreign body resulted in an asymptomatic and healthy patient.

The evaluation of the available bone for the initial implant placement can be crucial for the long-term success of the case. If there is inadequate bone available, grafting may be a necessity. CBCT studies render the most accurate information available at a low radiation dose. The periapical shows an obvious lack of bone height, but does not show the buccal-lingual dimensions or an accurate view of the sinus morphology (Fig. 2).

The MPR view of the CBCT shows all necessary measurements to perform the sinus lift and grafting with the immediate placement of the implant fixture (Fig. 3). Three-dimensional views show the floor of the sinus and any soft-tissue pathology (Fig. 4). Having accurate measurements in all dimensions is an advantage of CBCT scanning.

CBCT and endodontics

Endodontics is a field that is rapidly adopting the use of CBCT and for good reason. The inherent geometric deficiencies of 2-D radiographs make the CBCT scan a valuable adjunct to investigate the root morphology in both 3-D and MPR.

The typical periapical will show superimposed canals in the anteriors, bicuspids and molars as well as unwanted bone densities both buccal and lingual to the affected tooth making the image quality poor.

The ability to view MPR slices in cross-section, long axis and oblique directions gives the ability to follow all canals in any direction and show their relationship and measurements from other known structures. This virtual tour of the root morphology is a great benefit to the final treatment outcome (Fig. 5).

Post root-canal infection can be difficult to diagnose with the standard periapical. The endodontic fills may appear to be normal even though other clinical findings and symptoms are abnormal. The patient presents several months post root-canal treatment with pain on palpation and pressure and avoids this side of the mouth.

A periapical radiograph shows minimal pathology (Fig. 6). The roots appear to be filled, and a small puff of sealer extends through the apex of the mesial roots. The distal root structure and fill appear normal. There is little indication of periapical radiolucency, only a widening of the periodontal ligaments of the mesial roots.

A CBCT scan reveals a completely different picture. The coronal MPR reveals a short fill near the apex of the mesial lingual root and a large radiolucency (Figs. 7, 8) not visible on the periapical radiograph (Fig. 6).

Missed canals are difficult to see in a buccal-lingual projection of the periapical radiograph as one canal is superimposed on the other (Fig. 9). Often, as viewed in this radiograph, we see periapical pathology with an apparent normally filled canal.

CBCT scans allow dentists to look for pathology in MPR planes to identify the actual problem before invasive procedures are performed on the patient. The axial view shows a lingual canal exists and is...
implants

I.C.E. article_

application of 3-D imaging

untreated. The coronal view confirms the diagnosis and treatment can be completed (Fig. 10).

Today’s endodontists, as well as general dentists, are benefiting from the diagnostic capabilities of the high-resolution CBCT scanners available over conventional 2-D periapical.5,6

Oral surgery

Oral surgery, with its inherent invasive nature, can be better served using CBCT with MPR as well as 3-D images. The ability to perform virtual surgery is a benefit to both the doctor and the patient.

Clinicians have the advantage of seeing morphology and landmarks in real time and space with accurate measurements, and patients will gain a better understanding of the problems and the solutions their doctors are offering them.

Third-molar extractions can be risky based on 2-D and panoramic radiographs. These radiographs can often superimpose nerves and sinuses over root structures. Dentists using 2-D radiographs must often rely on experience to assess the risks of iatrogenic trauma.

The use of CBCT with MPRs and 3-D images reduces any guessing as well as the chance for any permanent damage to the patient. With the adoption of CBCT, the judgment is based on solid evidence and the risk will decrease.

A panorex of the superimposed third molars gave no solid evidence the canal lies between the roots. It is only with the use of CBCT and the MPRs that the nerve can accurately be seen traversing between the mesial buccal and mesial lingual root (Fig. 11).4,5

Other surgical advantages include the identification and the position of supernumerary or impacted teeth. The images show accurate positions and show definitive morphology that will aid in removal of the proper teeth (Fig. 12).

Knowing the exact position of many of these teeth is a benefit to both the doctor and patient. It will lead to the most precise surgical path and the least invasive procedure.

Periodontics

The explanation of periodontal problems are often misunderstood by the patient. As doctors we talk about pockets, point to X-rays and propose treatment only to have patients refuse treatment because they do not understand what we are clinically describing. Using the 3-D portion of the CBCT scan can improve the understanding and acceptance of treatment plans.

The images are a picture of the problem that is owned by that patient and much easier to understand by the layperson. Illustrating periodontal defects and pockets allows the patient to better participate in the process (Fig. 13).

The MPRs and the 3-D projections aid in surgical planning for periodontists, allowing for accurate measurements and bone analysis prior to osseous surgery that doctors cannot get using the periapicals or panoramics.

Studies have shown that CBCT images are more accurate than panoramic radiographs. For the periodontist placing implants, the ability to measure bone density and avoid important anatomy is important.4,5
Orthodontists are beginning to adopt large field-of-view CBCT. Recent studies show that linear measurements of bony structures are more accurate using CBCT and have less distortion than currently used methods of measurement: lateral cephalometric, posteroanterior (PA) and submentovertex (SMVT). Accurate measurements of tooth volume and tooth position can aid in accelerated treatment times and more precise treatment.

Along with tooth position, density of bone and size of arches, the orthodontist also has an accurate evaluation of the temporomandibular joint and position of the condyles. Impacted teeth are easily identified and positioned buccal or lingual and be confirmed prior to movement or removal. Both MPRs and 3-D projections give the clinician a complete picture of the problems and the treatment course.

With a single CBCT scan, orthodontists can produce all of the information they need: panoramic, cephalometric, PA, SMVT, tooth size and volume, crowding evaluation in any plane, TMJ evaluation and airway analysis, all with both soft-tissue and skeletal information.

**Conclusion**

We treat our patients in 3-D, and now, with cone-beam computed tomography, we are changing the way we diagnose from 2-D to 3-D. The addition of this technology will increase your diagnostic skills with better and more complete information at your disposal. As with any type of invasive diagnostic tool, clinicians should weigh the risk to benefit in using CBCT scans.

Judicious use of CBCT and knowledge of patient’s lifetime doses should always be a consideration as well as the availability of other diagnostic tests appropriate for the problems of the patient. When
adopter new technology, training is paramount. Along with training comes the responsibility of the doctor to read and diagnose information from CBCT scans.

Do not avoid CBCT from lack of knowledge; instead, take this opportunity to become a better diagnostician and radiologist. As you review radiology and pathology, your use of CBCT will aid in making the most accurate diagnosis and the most complete treatment plans.

References

1. Zinman E, DDS, JD, White SC, DDS, PhD, Tetradis S, DDS, PhD. Legal Considerations in the Use of Cone-Beam Computer Tomography Imaging. CDA Journal. 2010;138:49–56
2. No specific author listed. For the Patient (history of X-ray), JADA, Nov 2004; vol.135:1643

About the Author

Dan McEwen, DDS, is a 1982 graduate of Loma Linda School of Dentistry and has been in private practice for 26 years. He is a founding member of the World Clinical Laser Institute, achieving a mastership level of proficiency. He has been active in FDA approval of oral surgery techniques using Erbium lasers. McEwen has lectured and trained internationally in techniques using lasers in general and specialty dental fields. He is a member of the ICOI and is active in implantology. McEwen has been involved in cone-beam technology for more than five years and owns 3D Imaging Center in Maryland.
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LVI Core I course is designed for doctors and their teams to learn together

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 full breadth of dentistry, the most powerful and life-changing program is generally reported as being Core I, or 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 and not just in the mouth but also in the rest of the body.

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Introducing the creos allograft portfolio

Author: Nobel Biocare Staff

Nobel Biocare’s regenerative solutions range is expanding to offer allograft options for a wide range of indications. From sinus floor elevation to socket preservation, ridge augmentation to periodontal defects, the new creos allograft portfolio gives clinicians the options they need to treat more patients better.

Each product offers the high quality that dental professionals have come to expect from Nobel Biocare, the company asserts. Given the products are sourced from human donors, the company has taken every care to ensure they are processed and handled in a responsible way that goes beyond the required standards.

_Lots to gain

Estimates show that half of dental implant cases require a regenerative procedure. But no two cases are the same. That’s why the new range of creos allogain particulates is extensive. This broad portfolio offers five choices of particulate type that vary in size and volume.

Depending on indication and personal preference, clinicians can choose from corticocancellous, cancellous, cortical and demineralized cortical bone types, as well as a pre-prepared blend of mineralized and demineralized cortical particulate.

_Putty in your hands

In addition to bone particulates, the creos allogain offering includes demineralized bone matrix (dbm) putty. Moldable and with a convenient dispenser, creos allogain dbm putty can be shaped for precise adaptation to contained defects. This opens up a host of different options for the clinician placing the graft.

Thanks to a unique processing method, the putty is 100 percent pure allograft and does not contain any additional filler material. Nevertheless, the presence of natural growth factors is not left to chance. Each donor lot is verified for bone morphogenetic proteins (BMPs).

The creos allogain dbm putty resists hydration and maintains the stability and space needed for a trouble-free healing period, increasing the predictability of the final result.

_Flexible placement, stable protection

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It’s quick to place and easy to handle. It’s also easy to tack and suture, so there’s less risk of tearing the membrane during placement, the company says. This, together with four size options, provides the flexibility to treat various indications. The membrane adapts easily to surface contours, maintaining its shape and size when placed.
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creos allo.gain offers one of the broadest assortments of bone particulate types, sizes, and volumes for different clinical indications – such as sinus floor elevation, socket preservation, ridge augmentation, and periodontal defects – giving you the flexibility to choose the appropriate particulate graft depending on the patient indication or personal preference.

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- Strict tissue bank processing procedures to ensure highest safety and quality levels.
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- Pericardium membrane, an effective and reliable barrier.

To purchase products, go to store.nobelbiocare.com

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In addition, creos allo.protect offers protection that endures. Its impressive stability and strength come from the natural pore structure of the pericardium. Clinician and patient alike can have every confidence in the protection it gives to the bone graft.

_Safety first_

Ensuring the safety and quality of its tissue grafts is of paramount importance to Nobel Biocare. Strict processing procedures are in place for all its allograft products. The facility where creos allograft tissue is processed is accredited by the American Association of Tissue Banks (AATB), as are the doctors who conduct thorough screening of donors. Processing all donor tissue individually in a sterilized environment prevents cross-contamination.

_More than a product_

At Nobel Biocare, the responsibility that comes with being a provider of allograft products is taken very seriously. This new portfolio is only possible thanks to human donors from across the United States. Their generous gift significantly enhances other people’s lives. Each precious donation therefore demands respect. That’s why Nobel Biocare was extremely careful in selecting the right tissue bank for the creos allograft portfolio. The company’s chosen partner, Community Tissue Services, goes to great lengths to assist the families of donors and provide the support that they require.

The performance of its products is something Nobel Biocare takes great pride in. The creos allograft portfolio is no different in this respect. And, like all other Nobel Biocare products, it will make a positive difference — both to the results dental professionals can achieve and to their patients’ quality of life.

Experience the new range for yourself. Contact a Nobel Biocare sales representative or visit creos.com for more information and to view cases. The creos allograft portfolio is also available to purchase online at store.nobelbiocare.com.

* creos allo.protect available in the following sizes: 10x10 mm, 15x20 mm, 20x20 mm, 20x30 mm

References

2) Validated in vitro osteoinductive assay using ELISA BMP2 concentration measurement method is used to verify BMP is present in each donor lot
3 Video demonstrating resistance to hydration available at creos.com/allogain-dbm.
A TURNKEY PRACTICE MARKETING PROGRAM DESIGNED SPECIFICALLY FOR OVERDENTURES

INPLACE™ HELPS YOU ATTRACT NEW OVERDENTURE PATIENTS AND GAIN TREATMENT ACCEPTANCE

Attracting new patients to your practice can be challenging. Gaining treatment acceptance during the patient consultation can be equally as challenging. ZEST can help you meet these challenges with InPlace – a turnkey marketing program that is specifically designed for overdenture patients.

The InPlace Program consists of a variety of print and electronic promotional and educational elements, including a patient focused website, teethinplace.com, where patients can search for an InPlace Clinician in their area.

With InPlace, ZEST provides you with the marketing elements you need to attract patients to your office, educate them on the benefits of implant-retained overdentures and ultimately treat more overdenture patients.

Start attracting new overdenture patients to your practice today. To learn more, please visit www.zestanchors.com/inplace/30 or call 800.262.2310.
ZEST Anchors introduces turnkey practice marketing program for overdentures

Author: ZEST Anchors Staff

ZEST Anchors recently announced the release of a new and unique practice marketing program that provides dental clinicians with all of the elements necessary to attract new overdenture patients and gain treatment acceptance.

Attracting new patients to the dental practice can be challenging. Gaining treatment acceptance during the patient consultation can be equally as challenging. ZEST Anchors can help dental clinicians meet these challenges with InPlace™ — a turnkey practice marketing program that is specifically designed for overdenture patients.

The InPlace Program consists of a variety of print and electronic promotional and educational elements, including a patient-focused website, teethinplace.com, where patients can search for an InPlace Clinician in their area. InPlace Clinicians are not required to pay a monthly fee to be listed.

InPlace provides dental clinicians with the marketing elements they need to attract patients to their office, educate patients on the benefits of implant-retained overdentures and, ultimately, treat more overdenture patients.

To become an InPlace Clinician today, call (800) 262-2310 or visit www.zestanchors.com.

About ZEST Anchors Inc.

ZEST Anchors Inc. is a global leader in the manufacturing and distributing of dental solutions for the treatment of edentulous patients. For more than 40 years, ZEST Anchors has been leading the way in innovative solutions for overdenture attachments, receiving worldwide acclaim for pioneering the self-aligning design of the LOCATOR® Attachment. The LOCATOR Attachment is interface compatible with more than 350 implant products and is globally distributed in more than 45 countries.

Continuing its spirit of innovative technologies for overdenture patients, ZEST Anchors most recently introduced the LOCATOR Overdenture Implant (LODI) System, a narrow diameter implant system exclusively designed for overdenture treatment. ZEST Anchors is located in Escondido, Calif., and has global distribution through OEM implant companies and distributor networks.
Popcorn kernels, hard candy or ice...no worries!

BruxZir® Solid Zirconia
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Flexural Strength

Lithium disilicate ceramic has 400 MPa while zirconia materials exhibit a flexural strength of more than 1200 MPa. However, because of post-powder processing, BruxZir Solid Zirconia exceeds that strength threshold, with flexural strengths up to 1465 MPa.

1. Gladwell Laboratories internal data
2. Clinicians Report, TRAC Research, June 2012

*Price does not include multi-unit abutments, shipping or applicable taxes.

- **STRENGTH:** Solid zirconia — no porcelain overlay, denture teeth or acrylics, just 1,465 MPa BruxZir Solid Zirconia
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Straumann offers a smart solution with reduced complexity

Author: Straumann Staff

The Straumann Dental Implant System expands to include the new Straumann® Screw-Retained Abutment portfolio for single unit, partially dentate and fixed edentulous restorations. It offers dental professionals an opportunity to provide patients with an edentulous treatment option that is customized to their individual needs and expectations.

From treatment planning and implant placement to final restorations, the treatment process is seamless for the patient.

Implant planning is possible by way of 2-D conventional implant and prosthetic planning based on CBCT scanning or X-rays. Additionally, 3-D digital implant planning is made available through coDiagnostiX™ software for predictable results and treatment efficiency.

Straumann Bone Level Roxolid® SLActive® Implants are designed to provide a solid foundation for implant treatment, featuring the combination of Straumann’s technologies: the Roxolid material for high tensile strength1 and the SLActive surface for faster osseointegration2, according to Straumann.

With outstanding mechanical and biological properties, Roxolid Implants may allow the use of smaller-diameter implants with the same performance as regular-diameter titanium implants.

The Straumann Screw-Retained Abutments provide a wide range of prosthetic options for fixed edentulous and screw-retained restorations. A sleek profile designed for optimal tissue management, various angulations and gingival heights offer the flexibility to provide an individual solution for edentulous patients.

The Screw-Retained Abutments are designed to achieve excellent esthetic and functional results. The abutment dimensions allow for fixed screw-retained full arch restorations according to the patients’ individual clinical situations, even in cases where tilted implants are inevitable. The new Straumann Screw-Retained Abutments are designed to provide flexibility when treating edentulous patients with Straumann Bone Level implants. Furthermore, the portfolio allows for the possibility of conventional immediate temporization.

“By listening to our customers and developing a solution with reduced complexity, it is ultimately the patients who win, and that is exciting for all involved,” said Gino DeSimone, vice president, U.S. Dental Division.

To patients with hopeless dentition, the combination of the Straumann Dental Implant System and the new Straumann Screw-Retained Abutment is the optimal choice for simplified, full arch rehabilitation, the company says.

To learn more about the Straumann Screw-Retained Abutment portfolio, contact your Straumann territory manager or visit www.straumann.us/sra._

References
1) Norm ASTM F67 (states min. tensile strength of annealed titanium); data on file for Straumann cold-worked titanium and Roxolid implants
2) Compared to SLA.
More than a treatment concept.
A smart portfolio with reduced complexity.

With a growing market of fully edentulous patients, the demand for immediate rehabilitation is increasing daily. Are you prepared to offer immediate rehabilitation with excellent esthetics and reliable long term results?

The new Straumann Screw-Retained Abutments provide a wide range of prosthetic options for fixed edentulous and screw-retained restorations. More than a treatment concept, the Screw-Retained Abutments deliver a simple solution, excellent esthetics and longevity.

To learn more contact your Straumann Territory Manager or visit www.straumann.us/SRA
implants

Implant-supported overdenture solutions for improved patient quality of life

Author: DENTSPLY Implants Staff

With an estimated 35 million people faced with edentulism1 and almost two-thirds of that number being fully edentulous, there is a great opportunity for clinicians to grow the implant portion of their dental practice.

There are a wide range of implant-supported solutions for these edentulous patients, especially with nearly 15 percent of this fully edentulous population having new dentures created on an annual basis.

The ongoing development both in product design and technology continues to drive implant-supported overdentures as a new standard of care for edentulous patients. These solutions, available in fixed and removable options, provide the stability needed for improved function and esthetics when compared with traditional dentures.

The treatment of these patients requires careful planning and evaluation to determine the ideal number of implants needed and the hard and soft tissue available, as well as consideration of the patient’s preference for either a fixed or removable solution. In addition to the flexibility of treatment options, versatility in product design is also important in allowing for simplified handing while ensuring overall quality.

Some advantages of a fixed restoration are increased stability for the patient (minimal anterior/posterior movement), esthetics, comfort and function that allows for improved phonetics as well as overall nutrition with the increased ability to eat a larger variety of food types.

An example of a fixed solution is the SmartFix™ Concept, available for ANKYLOS® and XIVE® implant systems. SmartFix is an effective and time-saving implant-prosthetic technique for immediate, screw-retained restorations in the upper and lower jaw. A minimum of four implants is required on the lower mandible, and six implants are typically recommended for the upper maxilla.

The SmartFix Concept allows for restorations on angled implants using either a 15- or 30-degree angle.

The SmartFix Concept: The two-piece abutments provide the optimal design freedom for the superstructure in terms of height and diameter. (Photos/Provided by DENTSPLY Implants)
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angled ANKYLOS Balance Base or XIVE MP Abutment. These two-piece abutments provide the optimal design freedom for the superstructure in terms of height and diameter. The abutment components are pre-mounted in a short, flexible seating instrument for easier handling and placement of the abutment into the implant.

A similar level of stability, esthetics and comfort for the patient can be achieved with a removable solution. A removable prosthesis is also often a more cost-effective option and one that allows for patient removal and cleaning.

The ANKYLOS SynCone System was developed to simplify the immediate loading of overdentures on a minimum of four implants. It utilizes the telescopic crown technique, and can help to reduce costs and laboratory intensive procedures.

With the advent of digital dentistry for truly individualized, patient-specific solutions, the soon-to-be released ATLANTIS™ Conus abutment is a further development of this conus/telescopic concept with the added advantage of availability for all major implant systems.

Through continued advancements in product development and design, and improved techniques for the evaluation and treatment of edentulous patients, a growing number of patients can experience improved form, function, esthetics and overall improved quality of life with implant-supported overdentures.

For more information on other products and services from DENTSPLY Implants, visit the company at www.dentsplyimplants.com.

**References**

1) www.gotoapro.org/news/facts--figures/

‘The treatment of these patients requires careful planning and evaluation to determine the ideal number of implants needed and the hard and soft tissue available, as well as consideration of the patient’s preference for either a fixed or removable solution.’
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• Increase case acceptance through better patient understanding
ATLANTIS abutments provide simplicity, flexibility for implant treatment

Author: Drake Laboratories Staff

Advancements in product design and technology continue to simplify the clinical process for implant treatment while allowing for predictable and reliable results. These developments can make incorporating implants into your dental practice easier than you might think and can help you to provide long-lasting results for your patients.

Restorative implant treatment is often misperceived as being difficult. This belief can be attributed to the complications often associated with the use of prefabricated abutments. For example, if an implant is not placed in an ideal position, a prefabricated abutment often does not allow for the flexibility needed to adjust for the location of the implant.

Another common and rising concern with implant restorations is the ability to properly remove the cement, especially in situations where the implant is placed too deeply. When residual cement is left, it can be detrimental to the success of the treatment.

Finally, prefabricated abutments are often not provided in a size that is ideal for the crown that it needs to support. The smaller-than-ideal size of the abutment then requires the need for additional labor and the use of larger amounts of restorative material, such as noble or high noble alloy, which can add to the cost of the restoration. By leveraging the latest technology, restorative implant treatment can, in fact, be both easy and profitable for the dental practice. An example of this is ATLANTIS patient-specific abutments.

ATLANTIS abutments are one of the most versatile solutions on the market today, with availability for more than 80 interfaces, including all major implant systems. Available in titanium, gold-shaded titanium and up to five shades of zirconia, ATLANTIS abutments provide the simplicity and flexibility a clinician needs.

When compared to pre-fabricated abutments, the ATLANTIS solution offers many benefits, including:

- Possibility to create an anatomically optimal emergence profile, supporting long-term esthetics.
- Abutment design gives optimal support and retention of the final restoration.
- Eliminates the time needed for inventory management and chairside modification.
- Simple restorative procedure: just take an impression and send it to the laboratory.
- Comprehensive warranty, including the implant.

ATLANTIS abutments are available for both cement-retained and single-tooth, screw-retained options. The abutments are designed in a virtual environment based on 3-D imaging for a solution that is unique to each individual patient. The margins of cement-retained ATLANTIS abutments can be also be designed taking into consideration the placement of the implant, for an ideal level that allows for easy and safe removal of excess cement. ATLANTIS Crown Abutment for screw-retained zirconia restorations are provided as one final component that is placed using only a single step and requires no modification or cement.

Because ATLANTIS abutments are designed in a virtual environment using ATLANTIS VAD (Virtual Abutment Design), the data of the abutment design is also captured and stored. This feature allows for an identical abutment to be ordered at a later time or for a second abutment with additional changes to be made without the need for a second impression.

With more than 10 years of experience in providing ATLANTIS abutments, Drake has restored more than 7,000 abutments since 2007. Our experience began with beta site development of the original technology and continues today. The Atlantis commitment to development and technical support makes our partnership with Atlantis a successful one. The streamlined workflow resulting from scanning of a master cast and submission to Atlantis for design and fabrication allows for quick accurate turnaround time of your case. As an added value, Drake provides clients with two unique services for cementable implant crowns and bridges. Included with each case is an abutment seating jig ensuring quick and accurate positioning of the Atlantis abutment as well as a cementation die allowing extra-oral trial cementation and cleanup for predictable control of potential excess cement. These value-added services assure that excellent clinical results are accomplished every time, Drake asserts.
submissions
formatting requirements

Please note that all the textual elements of your submission:

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