Scientists develop smart coating for implants

By Daniel Zimmerman, ITI Group Editor

Osseointegration remains one of the biggest challenges in implant dentistry. Scientists from North Carolina State University are now reporting to have developed a "smart" coating that could help hip, knee and tooth replacements bond more closely with bone and ward off infections. Their research, which received funding by the U.S. government, could open doors to much safer and functional implants in dentistry.

According to the researchers, the new coating is comprised mainly of hydroxylapatite, a naturally occurring mineral also found in dentin and dental enamel. When applied to an implant it creates an amorphous outer layer touching the surrounding bone. This layer will dissolve over time, releasing calcium and phosphate, and encourage bone growth into the coating.

"We call it a smart coating because we can tailor the rate at which the amorphous layer dissolves to match the bone growth rate of each patient," said Dr. Afsaneh Rabiei, a North Carolina associate professor of mechanical and aerospace engineer-

Immediate single-tooth replacement, provisionalization

By Dr. Graham Magee

With more than 40 years of clinical evidence, titanium endosseous implants have become an acceptable (evidence-based) form of treatment to replace natural teeth and should be considered as an alternative to either a partial denture or bridge.

Immediate implant placement with simultaneous immediate function or immediate loading has been gaining momentum during recent years and can be a very predictable method in providing implant treatment for our patients.

There have been various time-frames used for the definition of immediate implant placement. Hammerle et al. (2004) suggested that immediate implant placement was when an implant was placed following tooth extraction and as part of the same surgical procedure.

In the same paper, the consensus statements say, "implants should not be placed at the time of tooth extraction if the residual tooth morphology precludes attainment of primary stability."

It also states that, "If buccal plate integrity is lost, implant placement is not recommended at the time of tooth removal. Rather, augmentation therapy is performed."

The implant is then placed after healing, that being 12 to 16 weeks, or even longer than 16 weeks.

It has also been reported that infection adversely affects immediate implant placement (Rosenquist and Grenthe 1996; Grunder et al. 1999) and is a contraindication for immediate placement of an implant into an extraction socket.

Fig. 1: Radiograph of failing upper left central incisor.

Fig. 2: Pre-operative view of UL1.

Fig. 3: Extraction of UL1.
ITI World Symposium 2010: 30 years of leadership, credibility

The International Team for Implantology (ITI), a leading academic organization dedicated to the promotion of evidence-based research and education in the field of implant dentistry, is hosting the 11th ITI World Symposium from April 15–17 in Geneva, Switzerland. At the same time, the organization, which was founded in 1980, is celebrating its 30th anniversary.

Since the first ITI World Symposium in 1988, the meeting has developed into one of the most prestigious implant dentistry events worldwide. Under the heading “30 years of leadership, credibility,” a total of 104 experts from 25 countries will present on current themes and developments in the field. The following main areas will be explored at both a theoretical and practical level over the symposium’s three days:

• New clinical methods for diagnosis and treatment planning
• New and proven treatment procedures
• Complications in implant dentistry or dealing with reality

There will be simultaneous translation available for all the presentations in the main sessions from English into German, French, Italian, Spanish, Portuguese, Japanese, Korean, Mandarin Chinese, Russian, Turkish and Farsi.

For the first time, the ITI World Symposium is complementing its main sessions with two full-day pre-symposium courses on April 14 as well as an industry exhibition.

The attractive and historic city of Geneva at the heart of Europe is the ideal location for the event. The city’s excellent infrastructure in combination with the Palexpo Congress Center offers both exhibitors and participants excellent conditions.

For detailed information and to register, go to www.it.i.org.

About the ITI

The International Team for Implantology (ITI) unites professionals around the world from every field of implant dentistry and related tissue regeneration. As an independent academic association, it actively promotes networking and exchange among its membership. ITI fellows and members, who now number more than 7,000 in total, regularly share their knowledge and expertise from research and clinical practice at meetings, courses and congresses with the objective of continuously improving treatment methods and outcomes to the benefit of their patients.

The ITI is active in three principal areas: research, development and education. In 50 years, the ITI has built a reputation for scientific rigor combined with concern for the welfare of patients. The organization focuses on the development of well-documented treatment guidelines backed by extensive clinical testing and the compilation of long-term results.

The ITI funds research as well as scholarships for young clinicians, organizes congresses and continuing-education events and also publishes reference books such as the ITI Treatment Guide series. For more information, see www.it.i.org.

Tell us what you think!

Do you have general comments or criticism you would like to share? Is there a particular topic you would like to see more articles about? Let us know by e-mailing us at feedback@dental-tribune.com. If you would like to make any change to your subscription (name, address or to opt out) please send us an e-mail at database@dental-tribune.com and be sure to include which publication you are referring to. Also, please note that subscription changes can take up to 6 weeks to process.

Corrections

Implant Tribune strives to maintain the utmost accuracy in its news and clinical reports. If you find a factual error or content that requires clarification, please report the details to Managing Editor Sierra Rendon at s.rendon@dental-tribune.com.
A Bone Matrix Product Containing Stem Cells.

The Properties of Autograft without Associated Risks
The proprietary processing technology that produces Osteocel® results in a viable bone matrix product that preserves the native stem cells found in marrow rich bone. It is the only product available today that has the desired beneficial properties of autograft—osteocduction, osteoinduction and osteogenesis—and that allows surgeons to provide their patients with optimal bone growth conditions without the added risk and cost of a secondary procedure.

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Viable Cell Content
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• Rich supply of stem cells: Greater than 50,000 cells/cc
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• Positive osteogenesis: In vitro cell culture assay

   McAllister, Hugh, Hoar, Gintner. — Journal of Period., April 2009
Predicable treatment concept
Immediate implant placement and provisionalization is a predictable treatment concept (De Rouck et al. 2008). The success rate is at least comparable to data published for single-tooth implant placement using standard protocols in healed sites.

This happens providing careful appropriate patient selection is used and the surgeon is familiar with the techniques that differ from the standard two-stage protocol for implant placement.

For the patient, the main advantage for immediate replacement and provisionalization is fewer surgical visits as well as providing immediate esthetics that are virtually indistinguishable to the original tooth. Sometimes, if the tooth being replaced is discolored due to non-vitality, the esthetics will provide an immediate improvement.

For the clinician, immediate replacement allows for minimal disruption of the soft tissue providing immediate peri-implant support through careful manufacture and design of the provisional restoration. This helps to maintain the stability of the gingival marginal tissues, which is necessary for a successful esthetic outcome.

Root-filling failure
The following is a case study of a 50-year-old female with a history of a failing root-filled, upper-left central incisor. The root filling had been present for approximately 25 years and this had been apicected approximately 15 months before the tooth became problematic (Fig. 1).

The patient did not want another apicectomy and requested that the tooth should be extracted. The various options for restorations were discussed and as the neighboring central incisor was root filled and restored with a post crown, the lateral incisor was restored with a veneer due to microdontia, a bridge was not a viable option. The patient was adamant that she did not want a partial denture.

As the tooth was not infected and investigation had shown that the buccal plate was still intact, it was decided that the tooth could be extracted and immediately replaced with an implant fixture. This was to be utilized to support a Nobel Biocare immediate temporary abutment and a provisional crown.

What the treatment involved
Under local anaesthesia, a crevicular incision was used and no flap reflection. The upper left incisor was extracted using a very careful (atraumatic) technique with a periotome to preserve the buccal plate of bone and careful manipulation of the gingival tissues.

Once the tooth was removed, the socket walls were curetted to remove any remnants of periodontal fibres or granulation tissue. The socket was inspected to ensure that the buccal plate was still intact (Fig. 3).

Using the standard protocol, the bone was first prepared by penetrating the palatal wall at the apical third. Great care needs to be taken in the osteotomy preparation as the palatal wall of the extraction socket is commonly very dense and difficult to prepare, which can cause “run-off” of the drill tip.

To achieve the initial perforation, the drill is held at an angle of approximately 45 degrees to the palatal bone.

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Under local anaesthesia, a crevicular incision was used and no flap reflection. The upper left incisor was extracted using a very careful (atraumatic) technique with a periotome to preserve the buccal plate of bone and careful manipulation of the gingival tissues.

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tal wall, the angle is changed to then run more-or-less parallel to the angle produced by the buccal plate.

In the anterior maxilla, implant placement is typically toward the palatal aspect of the socket. Ideally, there should be a space of 0.5 mm to 1 mm between the buccal plate and the anterior surface of the fixture. The site was further prepared using the standard drill sequence.

A Nobel Speedy Replace regular platform fixture (4 mm x 15 mm) was then placed, which stopped at a torque value of 55 Ncm. It is recommended that if a torque value of 55 Ncm cannot be achieved, the implant should not be brought into immediate function.

A cover screw should be used and the implant submerged; therefore, some other temporary measure such as a Maryland Bridge should be used. In these conditions, the root could even be sectioned from the extracted tooth and the crown bonded to the adjacent tooth.

Primary stability is very important in this procedure as the bone support needs to be strong enough to support the fixture and prevent micromotion from exceeding the threshold above which fibrous encapsulation prevails over osseointegration (Szmukler-Moncler et al. 1998).

An immediate provisional abutment (IPA) (Fig. 4) was fitted to the implant and fastened down to 20 Ncm. The abutment is non-engaging, screw-retained and inserted using a multi-unit abutment driver.

The margins were then shaped and polished to ensure a smooth shoulder with no ledges or deficiencies against the IPA (Figs. 5, 6). The provisional crown was then cemented to the IPA with a very small amount of Temp-bond, ensuring that no cement extruded into the tissues.

Adjusting the provisional crown

It is important at this stage to ensure that the provisional crown is adjusted to ensure that there is no contact with the lower teeth in centric occlusion (Fig. 7) and no contact in any protrusive or excursive movements (for example, not immediate loading).

The patient was advised to try to avoid the provisional crown and not to apply any forces while eating for the first four weeks.

The provisional crown was left in situ for six months (it is recommended that an absolute minimum of three months should be allowed for osseointegration before disturbing the immediately placed implant). The...
provisional crown was removed and a fixture-head impression taken of the implant.

The adjacent post crown (upper right central incisor) was also prepared for a new crown to ensure a good match for both central incisors. A Procera zirconium abutment was connected to the fixture (Fig. 8). The abutment screw was fastened down at the recommended torque of 35 Ncm. Procera porcelain crowns were fitted to both central incisors (Fig. 9).

The implant-retained crown was cemented with Tempbond. It is recommended that the definitive restorations on implants should be cemented with temporary cement as this allows access to the implant, if necessary.

Immediate implant placement is gaining momentum. Clinicians should be aware, however, that this is a high-risk procedure and should only be attempted by those surgeons with experience in dental implant surgery particularly when dealing with the esthetic zone.

References

Send us your case study!

Have an interesting implant case you would like to share with 15,000 of your peers? To have your case study considered for publication in Implant Tribune, send your 800- to 1,200-word case study and up to 12 high-resolution photos to Managing Editor Sierra Rendon at s.rendon@dental-tribune.com. Authors will be notified of publication and have an opportunity to review the designed case study prior to final publication. Cases will be published pending editor approval and space availability.

About the author

Dr. Graham Magee qualified at Liverpool University in 1978 and in 1995 he created the Chester Dental Implant Centre within the general practice where he was a partner. Graham has undergone extensive postgraduate training to develop his skills in dental implant surgery and cosmetic dentistry including a master’s degree in dental implantology from Sheffield University. He continues with his postgraduate education regularly attending courses in Britain, Sweden, France and America and also gives lectures on the aspects of dental implantology and CT scanning and 3-D planning in advanced dental implant therapy. Graham also runs postgraduate training courses in implant dentistry for dental practitioners in his practice and is a member of the Association of Dental Implantology and of the American Academy of Osseointegration. To contact Graham or for further information on Chester Dental Implant Centre, call +44 (12) 44 540 177.
AO celebrates 25 years by ‘going to Disney World’

Various approaches, complications among meeting highlights

Different approaches to implant therapy and solutions to unexpected complications are among the highlights of the Academy of Osseointegration’s 25th Anniversary Annual Meeting, March 4–6, at the Walt Disney World Dolphin Resort in Orlando.

“Treatment Approaches: Controversies in Implant Dentistry,” to be held Friday, March 5, and Saturday’s “Unexpected Complications: Complications and Solutions,” are key pillars of the meeting’s overall theme, “The Formula for Predictable Implant Success.”

“The 2010 meeting will serve as a celebration of everything we have learned in the past 25 years, and how that knowledge is applied for the benefit of our patients today,” Annual Meeting Committee Chair Dr. Stuart Froum, New York, N.Y., explains.

Approaches, controversies

Friday’s implant therapy program gathers an international roster of experts to review the latest treatments and materials through an evidence-based approach. Saturday’s session on complications will explore why problems occur, how to treat them and what we can do to prevent them.

The 25th anniversary annual meeting will kick off Thursday, March 4, with the opening symposium, “A Quarter Century of Experience: The Formula for Predictable Implant Success in the Esthetic Zone.”

Other AO Annual Meeting highlights will include:

- **Hands-on workshop:** This pre-meeting, daylong series of sessions will explore how 3-D imaging and navigation technology helps providers fabricate surgical templates, generate final prosthesis and place implants more effectively as part of the “team approach” concept.

- **AO Corporate Forum:** AO’s 2010 Corporate Forum features 36 manufacturer-hosted educational sessions that showcase the latest research, products and developments.

- **“Two-Track” scientific program:** The surgical track will explore “Surgical Procedures to Enhance Implant Success in the Esthetic Zone.” The restorative track, “Where, When, Why and How,” will cover prosthetic considerations for restoring angled or tilted implants; endodontics vs. implants; and early predictors for biological and technical complications.

- **Round table clinics:** Twelve separate sessions offer attendees the opportunity to discuss diverse topics.

- **Limited attendance lectures:** Increase interaction between annual meeting attendees and world-class clinicians on a wide range of topics.

- **Allied staff program:** The annual meeting’s allied staff program offers concurrent sessions designed for dental lab technicians and hygienists.

For more information, see the 2010 annual meeting at the academy’s Web site, www.osseo.org.
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esthetic dentistry | implant dentistry | periodontics | endodontics | prosthodontics and more...
Implant dentistry requires a high degree of collaboration between restorative and specialty practices. Without a strong focus on communication, the treatment process can easily break down between the referral, the consultation and the surgical appointment.

Due to their cost, implants have a steeper acceptance curve than other services. Anything that interferes with a motivated patient’s ability to begin implant treatment as quickly as possible needs to be eliminated or minimized.

Levin Group recommends scheduling the implant consultation at the surgical practice within seven to 10 days after a patient is referred for implant treatment.

When it comes to a major expenditure, people can lose motivation quickly. That's why it's so critical that restorative offices and surgical practices work together to design a consultation scheduling system that works for everyone involved — patients, the dentists, the surgeon and their teams.

At a recent seminar, I spoke with a group of implant surgeons who acknowledged that it is essential to have the implant consults as quickly as possible.

In a team approach, both teams have to follow similar rules. If one team member feels that speed of treatment is important and the other group cannot accommodate that philosophy, there is going to be a problem. Either the restorative clinician will find another implant surgeon or simply stop referring implants — as is too often the case.

Critical questions

In a team approach, clear communication is essential. Answer the following questions:

- What are the guidelines for the team to work together?
- Who will provide which parts of the implant services?
- Who will provide case planning?
- Who will present fees to the patient?
- When the situation is appropriate, who will arrange patient financing for patients?
- How will communication occur between the restorative practice and the implant surgical practice?
- How soon can the surgical practice accept a referred patient for an implant consultation?
- How soon can the patient expect to start implant treatment when a case is presented and accepted?

These questions will help you and your referring practices reach a better understanding of each other’s expectations and commitment to implant dentistry. A strong team approach requires communication and cooperation throughout the entire treatment process from referral to restoration. When both practices are on the same page, an outstanding experience is the result for patients, referring dentists and implant surgeons.

Trying to decide how to improve the referral process? Implant Tribune readers are entitled to receive a 50 percent courtesy on a Levin Group Practice Potential Analysis℠ — an in-office evaluation designed to identify the true potential of your practice. Call (888) 973-0000 and mention “Implant Tribune” or e-mail customerservice@levingroup.com with “Implant Tribune” in the subject line. For more information on Levin Group seminars and programs, go to www.levingroupimplant.com.
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California Implant Institute offers fellowship program

California Implant Institute offers a one-year comprehensive fellowship program in implant dentistry. This program is composed of four sessions designed to provide dentists with practical information that is immediately useful to them, their staff and their patients. The four sessions combined offer more than 160 hours of lectures, laboratory sessions and live surgical demonstrations.

The faculty team offers some of the most respected instructors from the United States and around the world, as its goal is to provide practitioners with comprehensive knowledge that will enrich their practices and improve clinical skills so they can confidently perform predictable, prosthetically driven implant dentistry.

Whether you’re just starting out, or looking to enhance your existing surgical and/or prosthetic implant skills, the programs could be exactly what you’re looking for.

Our state-of-the-art dental training institute located in the heart of San Diego, provides a rich environment for advancing the use of implant, prosthetic and aesthetic dentistry. The interior design of the center is both welcoming and professional. Each participant’s desk allows plenty of personal space for didactic and simulated clinical aspects of the courses.

The institute uses a variety of high technological teaching modalities ranging from computer animation to live video demonstrations. Video cameras feed images from a variety of inputs simultaneously. The institute’s high-tech dental office and laboratory interface with the conference room to allow for questions and answers during the over-the-shoulder demonstrations. Various camera angles capture close-up details and a broad overview of procedures.

California Implant Institute was developed in 2001 by Dr. Louie Al-Faraje to provide quality continuing education on the subject of dental implants and related topics using a hands-on approach. As director, he has trained more than 1,000 clinicians in a hands-on, yearly forum of education in implant dentistry. Al-Faraje holds diplomate status at the American Board of Oral Implantology, fellowship status at the American Academy of Implant Dentistry and fellowship status at the International Congress of Oral Implantologists.

2010 schedule

Session I: April 21–25
Session II: May 19–23
Session III: June 23–27
Session IV: Sept. 22–26

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<table>
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<tr>
<th>Location</th>
<th>Dates</th>
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<tbody>
<tr>
<td>Houston, TX</td>
<td>March 5-6</td>
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<tr>
<td>Nanaimo, BC</td>
<td>March 5-6</td>
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<tr>
<td>Richmond, VA</td>
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<tr>
<td>Fort Meyers, FL</td>
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<td>London, ON</td>
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<td>Las Vegas, NV</td>
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<td>Palm Springs, CA</td>
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<td>Victoria, BC</td>
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<td>Champagne, IL</td>
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<td>Baltimore, MD</td>
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<td>Reno, NV</td>
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<td>Frenchcreek, IN</td>
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<tr>
<td>Long Beach, CA</td>
<td>September 17-18</td>
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ADA CERP® Continuing Education Recognition Program

LVI Global is an ADA CERP Recognized Provider. ADA CERP is a service of the American Dental Association to assist dental professionals in identifying quality providers of continuing dental education. ADA CERP does not approve or endorse individual courses or instructors, nor does it imply acceptance of credit hours by boards of dentistry. LVI Global designates this activity for 11 continuing education credits.
Dr. Michael Sonick announces 2010 seminars

Dr. Michael Sonick, a world-renowned implantologist and chief editor of the forthcoming book, “Implant Site Development,” is announcing the new 2010 series of the acclaimed Sonick Seminars course.

Each course grants 16 C.E. units and focuses on the latest developments in the following topics: implant esthetics, implant site grafting or real-life treatment planning.

Every two-day, hands-on experience allows all clinicians, from veteran practitioner to the novice, to become clinically and fiscally successful in the field of implant dentistry.

The concentrated sessions consist of live surgery, interactive labs, case design brainstorming, 3-D diagnostics and practice management.

The participant will learn the concepts and techniques necessary to maintain and develop soft and hard tissue — essential for ideal implant placement. The courses are held at Sonick’s boutique private practice, which houses several conference rooms and surgical arenas.

Using innovative teaching methods, novel technology, a relaxing learning environment and real-world concepts, Sonick Seminars will help enhance the clinician’s confidence and capability to become a better implant dentist.

Let Sonick Seminars help you grow your career and enliven the health of your practice. Please invite your dental auxiliaries, referring dentists and associated surgeons as well — the team approach is crucial to the success of implants.

About Dr. Sonick
Michael Sonick, DMD, is a world-recognized periodontal and dental implant surgeon who earned his doctorate from the University of Connecticut, his degree in periodontics from Emory University and his implant dentistry training at the University of Gothenburg, Sweden and Harvard University.

Sonick previously held teaching appointments at Yale University and University of Connecticut. He currently teaches at New York University College of Dentistry in its international program and is on the boards of many journals.

Sonick combines clinical and academic expertise. He is a popular lecturer and editor of several dental publications, including a major textbook on bone grafting. Currently, Sonick runs a boutique private practice, directs courses at New York University and operates Sonick Seminars.
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Zimmer plastic temporary upgrades include angled design

Zimmer Dental, a leading provider of dental oral rehabilitation products and a subsidiary of Zimmer Holdings, is pleased to announce the expansion of its portfolio of Zimmer® Plastic Temporary Abutments for the popular Tapered Screw-Vent® and Screw-Vent® Implant Systems.

These new and improved provisional abutments, offered in angled and straight designs, allow for expedient and simplified chairside modification, thereby saving clinicians time and money.

Highly compatible with today’s acrylic and composite restorative materials, the Zimmer Plastic Temporary Abutments provide clinicians more options as they strive to satisfy patient needs and maximize results.

The new angled and upgraded straight designs, with 1 mm and 4 mm cuff options, enable clinicians to select the optimal interim abutment for the patients’ soft tissue, while requiring the least amount of abutment preparation.

By promoting soft-tissue management during the crucial healing period, the Zimmer Plastic Temporary Abutments foster improved oral esthetics.

Fabricated from a tooth-colored plastic polymer, the interim abutments may be used to fabricate cement-retained or screw-retained restorations and can stay in the mouth for up to 180 days.

For decades, Zimmer Dental has gained the trust of thousands of clinicians worldwide who count on its comprehensive line of scientifically proven products to deliver successful patient outcomes and the best value in the industry.

By streamlining the implant restorative process with a more user-friendly and versatile family of plastic temporary abutments, Zimmer Dental has again reinforced its commitment to offering meaningful solutions to clinicians.

Contact a Zimmer Dental sales consultant or customer service at (800) 854-7019, (760) 929-4300 (for outside the U.S.), or visit www.zimmerdental.com for more information.
Regardless of the clinical situation, implant surgery needs to be performed under the safest and most accurate conditions possible. Custom-made SurgiGuide® drill guides provide the seamless link between implant planning and actual treatment, guarantee predictable implant treatment and, thus, increase case success. Materialise Dental now offers a to-the-point and easy-to-choose-from range of SurgiGuide drill guides — for every case scenario and tailored to the clinician’s specific needs and wishes.

SAFE SurgiGuide: used with a brand-specific guided surgery kit

For most cases, the preferred choice is a SAFE SurgiGuide®. It provides drill guidance, guided implant placement and full depth control. Materialise Dental offers SAFE SurgiGuide solutions that can be used with a variety of brand-specific, guided-surgery kits: External Hex SAFE SurgiGuide Kit (Materialise Dental), ANTHOGYR Guiding System (Anthogyr), Facilitate™ (AstraTech), Navigator™ (BIOMET 3i), ExpertEase™ (DENTSPLY Friadent), Straumann® Guided Surgery Kit (Straumann), NobelGuide™ (Nobel Biocare) and CAMLOG® Guide System (CAMLOG). SAFE SurgiGuide is considered to be the best solution in cases where the highest possible accuracy is deemed necessary, such as with esthetic cases or in the event of anatomical restrictions.

Universal SurgiGuide: used with a standard surgery kit to perform guided surgery

A Universal SurgiGuide® can be used with any standard implant surgery kit. It is ideal, if the clinician works with various implant brands or if his/her implant company does not offer a guided surgery kit. With Universal SurgiGuide, clinicians benefit from drill guidance for any implant brand. A set of drill keys allow for flexible guidance during the entire drill sequence. Universal SurgiGuide is used for more complex cases, which equally require accurate drill guidance.

Pilot SurgiGuide: used to benefit from pilot drill guidance

Pilot SurgiGuide® has been designed to offer swift and accurate pilot drill guidance for smaller and more straightforward cases. It is an entry solution offering clinicians optimal guidance during the often challenging initial drilling steps. Pilot SurgiGuide is available in a broad range of pilot drill diameters.

Regardless of which SurgiGuide type of support and solution is selected, there’s something for every case, and esthetic perfection can be realized in a remarkably more time- and cost-efficient environment.

About Materialise Dental

Materialise Dental is a world leader in 3-D digital implant dentistry, offering a range of products and services to implant professionals. From scanning and planning, to drilling and implant placement, to the ultimate Immediate Smile™, the SimPlant® technology offers clinicians a comprehensive 3-D system for predictable implant treatment.
A comprehensive line of proven oral rehabilitation products at your fingertips.

The Zimmer Collection offers a robust portfolio of scientifically proven products, including the latest, technologically advanced regenerative offerings that form the foundation for successful implant placement with our full line of surgical and restorative products.

And with the trusted Tapered Screw-Vent Implant System, outstanding service and educational programs, Zimmer offers your practice unwavering value.

To receive The Zimmer Collection product swatch book, call us toll-free at 1 (800) 854-7019 (please mention “Zimmer Collection”), or visit us at www.zimmerdental.com/ZimmerCollection.

Visit us at Booth #1009 To Learn More!
**Zimmer adjustable torque wrench offers improved design, precision**

Zimmer Dental, a leading provider of dental oral rehabilitation products and a subsidiary of Zimmer Holdings, is pleased to announce the availability of the new Restorative Torque Wrench. The adjustable tool offers enhanced precision and retentiveness in a simple and intuitive design—making it easier than ever to confidently secure Zimmer Dental’s industry-leading “friction fit” components.

The Restorative Torque Wrench replaces the previous TW20 and TW30 models, thereby reducing the number of required instruments to one for optimum simplicity and efficiency. The all-in-one wrench features a ratcheting head, adjustable preset torque levels, which are indicated on the handle with a visible gauge, and meets commonly used international sterilization requirements.

For decades, Zimmer Dental has gained the trust of thousands of clinicians worldwide who count on its comprehensive line of scientifically proven products to deliver successful patient outcomes and the best value in the industry. By streamlining the implant restorative process with a more user-friendly Torque Wrench design, Zimmer Dental has again reinforced its commitment to offering meaningful solutions to clinicians.

Contact a Zimmer consultant or customer service at (800) 854-7019, (760) 929-4300 (for outside the U.S.), or visit www.zimmerdental.com for more information.
BENEX®-CONTROL
Root Extraction System
Developed with Dr. Syfrig
Benex®-Control (Root Extraction System) is ideally suited for the extraction of roots and root fragments. Due to the innovative construction of the extractor, the root can be removed very easily and in an extremely controlled manner without causing injury to the bone.

SPLIT-CONTROL PLUS
Combined Bone Spreading and Condensing System
The Split-Control Plus kit contains specially designed spiral spreaders and horizontal wedge spreaders that allow for controlled and standardized spreading of horizontally resorbed bone while simultaneously condensing soft cancellous bone. Spreading of a thin alveolar ridge can be accomplished using this minimally invasive technique with predictable results. Utilizing the wedge spreaders up to 5 mm of width can be gained on either the anterior mandible or maxilla. After the proper width and density has been achieved the subsequent placement of implants, regardless of the manufacturer, can be accomplished.
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