



The Success Formula for Single-Tooth Restorations™

Fall 2010



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Overview



**Louis F. Rose,
DDS, MD**
*Professor of Dental Medicine
University of Pennsylvania*

Key Take-Aways

- 8% of the US population is edentulous
- Implants improve function and lifestyle
- Bone preservation
- Implant market is projected to exceed \$1 billion by 2013

Our professional development and the care we provide to our patients are inextricably connected. In this information age, we are constantly receiving messages about opportunities to expand our practices and improve patient care. However, we are not always immediately comfortable with the latest developments. Sometimes it's a question of shifting our focus on a particular issue, stopping to review our practices and consider taking the next important step for the benefit of our patients. As the primary conduit of oral healthcare information, it is important that we present all comprehensive solutions to our patients.

For example, although the benefits of dental implant-supported restorations over conventional treatments are well established, it is still not a common practice. This is a lost opportunity to provide patients with a better long-term prognosis, improved function, and superior esthetics—without compromising adjacent, nontreated teeth. These are clear benefits that a well-informed patient can easily comprehend after a case presentation. In addition, the less obvious—but extremely important—benefits of stimulating and preserving bone is a issue on which the patient can and should be educated. In fact, according to a study by the Institute for Dental Implant Awareness, a majority of patients who declined implant treatment said they would have accepted it if they'd been aware of bone resorption.

The number of patients who would benefit from dental implant-supported restorations is considerable. According to the US Centers for Disease Control and Prevention, almost 8% of the US population had none of their original teeth (survey conducted 1999-2002). This is an underserved market that demands our attention and commitment. In the age group 40-59, the average person was missing four teeth, and 5% of people were fully edentulous. The average person over the age of 60 was missing 9 teeth and 25% were edentulous. An estimated 69% of adults ages 35-44 have lost at least one permanent tooth to an accident, gum disease, failed root canal treatment, or tooth decay. Other reports state that there are more than 2 million missing teeth as a result of accidents.

An estimated 69% of adults ages 35-44 have lost at least one permanent tooth to an accident, gum disease, failed root canal treatment, or tooth decay.

According to a 2009 report by the Millennium Research Group, the US dental implant market will exceed \$1 billion by 2013. As the healthcare provider most responsible for diagnosis and treatment planning, having an understanding of the advances in the implant market is a crucial component to the success of this evolving standard of care.

As the body of evidence-based data grows, we've observed other significant advancements with dental implant-supported restorations: rapid osseointegration, precision fit, CAD/CAM accuracy, high strength, and tactile sensibility. This treatment option has proven advantageous for a variety of single-tooth restorations.

With the rising longevity of the population, there is a need for long-term, stable dental solutions that improve quality of life. As long-term clinical results become available, as training becomes more accessible, and as innovative products and delivery systems become standard, we have the ability—even the obligation—to offer our patients this invaluable treatment modality.

The Success Formula for Single-Tooth Restorations™

The foundation of successful single-tooth restorations lies in outstanding, versatile products and materials that demonstrate verifiable long-term success. When all the elements for single-tooth restorations are provided by a single dependable source and designed to work together, the dentist and patient can be assured of the best clinical and esthetic result.



Proven Implants

One key to long-term success is the strength and safety of the implant. High-performance material (cold-worked CP4 titanium), along with a unique surface (TiUnite®) for enhanced osseointegration, ensures primary stability and predictability. The most effective systems are versatile, highly functional, and designed for a variety of treatment and surgical protocols.



Functional Abutments and Connections

The ideal abutment mimics natural tooth form and emergence profile, with superior function and excellent soft-tissue management. Predictable and effective seating is essential, along with ease of use and accurate identification. A wide selection of integrated abutments—temporary, prefabricated, and individualized—facilitates all surgical and restorative situations.



Next-Generation Crowns

Natural-looking esthetic results, with exceptional strength and functionality, are vital to patient satisfaction. Consistent CAD/CAM precision of fit improves the patient's experience by eliminating time-consuming adjustments. Purity and homogeneity of materials ensures durability and biocompatibility. A comprehensive portfolio supports all clinical, esthetic, and budgetary needs.

45+ yr.
Heritage



Crown: superior natural-looking esthetics, high strength and functionality, individualized design and precision fit, choice of materials

Abutment: excellent soft tissue management and biocompatibility

Implant: ease of use, designed for primary stability, surface for enhanced osseointegration

Total solution: less invasive treatment techniques, professional training and support, long-term clinical success, backed by science



Single-Tooth Restoration on

Exceptional strength and esthetics, precision fit, and biocompatibility—these are the core features of the NobelProcera™ crown. Available in a full range of versatile materials for all locations in the mouth, NobelProcera is the safe and effective choice for the preservation and restoration of natural teeth.

After more than 15 years of clinical research and experience, NobelProcera has proven long-term success and efficacy. These individually designed solutions offer consistently natural-looking esthetics, while the purity and homogeneity of the materials provide exceptional strength, biocompatibility, and stability. NobelProcera's next-generation, customized solutions for single-tooth restorations enhance clinician efficiency—and patient gratification.

Broad prosthetic versatility

Natural-tooth esthetics for all patient clinical and esthetic needs

Optimal veneering thickness

Designed with uniform veneering layer thickness to prevent chipping

CAD/CAM precision fit

Improves efficiency by eliminating time-consuming adjustments prior to placement

Conventional crown-and-bridge techniques

Tooth preparation and cementation routines are similar to those used for conventional cast restorations

Case Study: Existing Tooth – Anterior

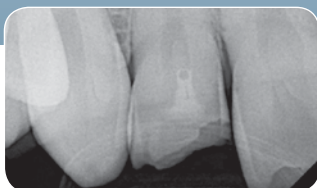
Shahriar Parvizpour, DDS

Whittier, California

Single-Tooth Replacement on an Existing Tooth.

Case Study: Alumina

A 20-year-old male presented with a trauma to tooth No. 7, which had occurred 3 weeks earlier. A preoperative radiograph revealed a major fracture to tooth No. 7, with no peri-apical pathology or changes to the alveolus. A pulp test was normal, and there appeared to be no periodontal concerns. As the patient had very unique, characterized teeth, he was concerned about the difficulty of matching a single tooth to the rest of his dentition.



Preoperative radiograph reveals a major fracture to tooth No. 7. An all-ceramic restoration was planned.



Before tooth preparation, a shade tab was used to take a match for a NobelProcera alumina crown.

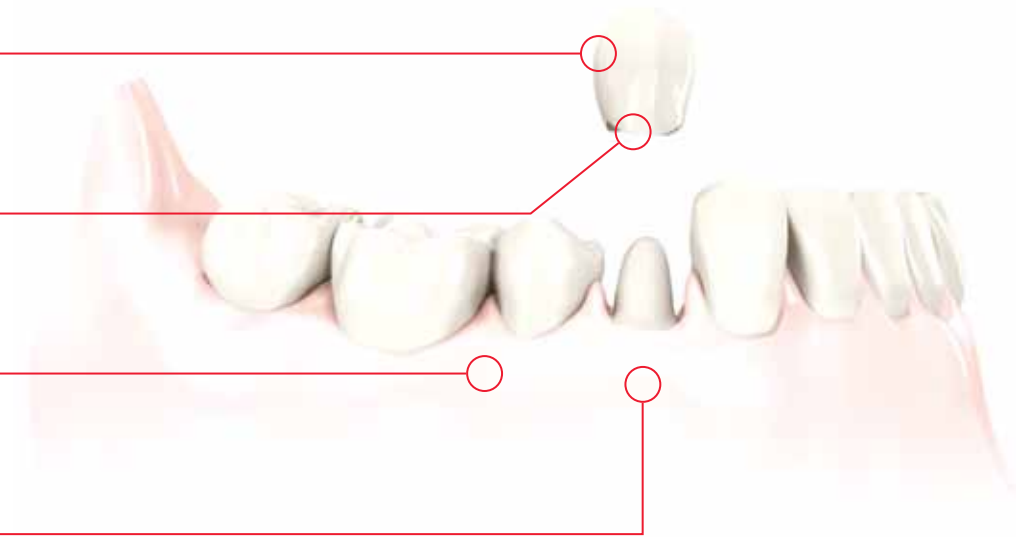


Lateral view of prepared tooth No. 7 at the seating appointment.



Close-up of the final restoration. With four different shades available for the core, shade matching is easier for the technicians.

an Existing Tooth



Key Take-Aways

- Backed by more than 15 years of clinical experience and research demonstrating long-term success
- Individualized CAD/CAM precision fit and material homogeneity
- Safe, strong, and biocompatible materials
- Easy to integrate into practice—tooth preparation and cementation similar to conventional crown-and-bridge techniques

Case Study: Existing Tooth – Posterior

Scott MacLean, DDS, FADI, FPFA, FACD

Halifax, Nova Scotia, Canada

Treatment Using a Porcelain-Fused-to-Titanium Crown

A 41-year-old male presented on emergency with a fractured left maxillary second premolar. He was missing the upper left first molar, where he was planning to receive an implant in the next 6 months. The fractured cusp upper left second premolar had a previous root canal requiring crown coverage (an amalgam was already in place). The patient opted for placement of a porcelain-fused-to-metal crown to support the remaining teeth.



CAD design of the titanium alloy coping, which was then fabricated at a Nobel Biocare central manufacturing plant using titanium aluminum vanadium.



Research has demonstrated marked improvements in marginal fit using the milled fabrication process. This image shows the excellent fit of the titanium on the crown die.



The clinician should ensure adequate removal of the tooth structure to provide porcelain plus the coping thickness of 0.4 mm to 0.5 mm.



Close-up view of the final TiPFM crown, cemented with a self-adhesive resin cement. Titanium alloy is expected to offer strong, long-term esthetic performance.

View the entire case study and learn more about single-tooth restorations at www.nobelbiocare.dentalaegis.com



Single-Tooth Restoration on

The most effective and esthetic single-tooth restoration on a dental implant—NobelProcera solutions incorporate the latest technological advances to address the full spectrum of clinician and patient needs.

For the clinician, the NobelProcera implant-supported restorations satisfy the requirements for high quality and versatility. The materials are safe and reliable with proven long-term functionality and outstanding strength. The comprehensive NobelProcera portfolio is easily integrated into a practice—accommodating various treatment processes and conventional preparation techniques, while offering compatibility with other implant brands.

From the patient’s perspective, the breadth and versatility of these solutions offers a full range of affordable options—all of which provide excellent esthetic outcomes, natural function, and long-term success.

Biocompatible materials

Prosthetics available in a number of materials depending on the clinical and esthetic needs of the situation

Patient-specific prosthetics

CAD/CAM individualized crowns

Abutment with precision of fit

For maximum esthetics and an excellent abutment/implant interface for ideal load transfer

Customized transmucosal profile

Improves soft tissue support and long-term hygiene maintenance

Case Study: Dental Implant – Anterior

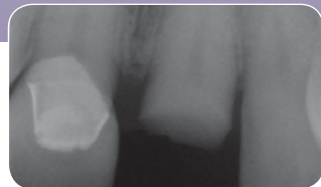
Robert M. Bentz, DMD, FACP
East Norriton, Pennsylvania

Immediate Implant Placement and Provisionalization of a Single Anterior Tooth

The patient was a 47-year-old building contractor with crowns on both his central maxillary incisors. He experienced a traumatic injury that fractured the left crown at the gum line. As he had no other facial lacerations, he presented for dental treatment immediately after the accident. His medical and dental histories were otherwise unremarkable. The patient chose to have the tooth extracted, followed by immediate implant placement and temporization.



A traumatic injury fractured the patient’s crowned left central maxillary incisor at the gum line.



A radiograph of the damaged tooth showed that the tooth root was also fractured, with stress cracks traversing down along it.

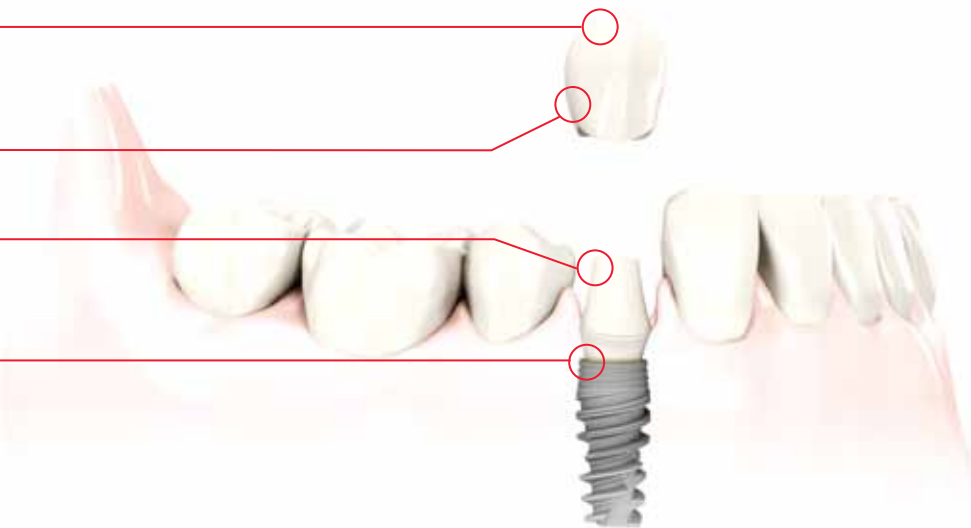


Immediately after extraction of the incisor, a NobelReplace Select Tapered Groovy Implant was placed and tightened to at least 45 Ncm, exhibiting excellent primary stability.



NobelProcera zirconia abutment and all-ceramic crown, 1 month after placement. Excellent healing of the soft tissue around the abutment demonstrated the biocompatibility of the zirconia.

a Dental Implant



Key Take-Aways

- Nobel Biocare implants, abutments, and crowns provide the ideal complete restoration for a single tooth
- Aligned products and procedures for best results
- Best practice (and most popular) solutions for all indications—posterior and anterior, functional and esthetic
- Accommodates various treatment concepts and processes, including immediate placement, flapless, and mini-flap

Case Study: Dental Implant – Posterior

Peter K. Moy, DMD
Los Angeles, California

Baldwin W. Marchack, DDS, MBA, FAGD, FICD, FACD
Pasadena, California

NobelReplace, Snappy Abutment, and NobelProcera Crown Zirconia in the Posterior

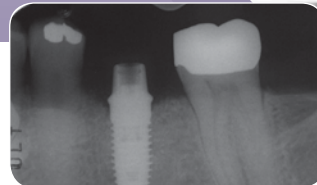
A 60-year-old man presented with a 10-mm pocket on the distal aspect of his left mandibular molar. A nonsmoker, he had no positive medical history relevant to his dental treatment. Clinical examination along with radiographic evaluation confirmed that the root canal filling had failed, and the tooth had fractured. The patient elected for implant treatment, to be delivered in a staged approach, with immediate temporization.



Presurgical radiograph. A surgical template was created to guide the placement of a NobelReplace implant. A transmucosal healing abutment was placed immediately.



Removal of the healing abutment revealed 2 mm of tissue above the implant with a flat tissue architecture, which is an ideal indication for the Snappy Abutment.



A 1-mm tall Snappy Abutment was seated on the implant, and the screw was engaged to a torque of 35 Ncm. The radiograph confirmed proper seating.



Using an off-the-shelf abutment replica, the laboratory fabricated a definitive NobelProcera Crown Zirconia, which was secured with resin-reinforced glass-ionomer cement.

View the entire case study and learn more about single-tooth restorations at www.nobelbiocare.dentalaegis.com



Portrait: NobelProcera™

The new and innovative NobelProcera System offers one of the broadest and most versatile CAD/CAM portfolios, which includes customized single-tooth solutions to satisfy all clinical, esthetic, and budgetary needs.

NobelProcera Precision Milled Restorations (PMR) provide exceptional patient-specific precision of fit and improved soft tissue results. Moreover, their material purity and homogeneity ensure long-term strength and biocompatibility. NobelProcera currently produces PMRs from zirconia, alumina, titanium, base-metal-alloy cobalt chromium, and temporary acrylic—with new materials continually being added.

These high-quality PMRs are designed using cutting-edge scanning and software technologies, then manufactured at state-of-the-art production facilities. Centralized industrial manufacturing processes are monitored at all stages, ensuring consistent deliverables that are ready-to-use or that require

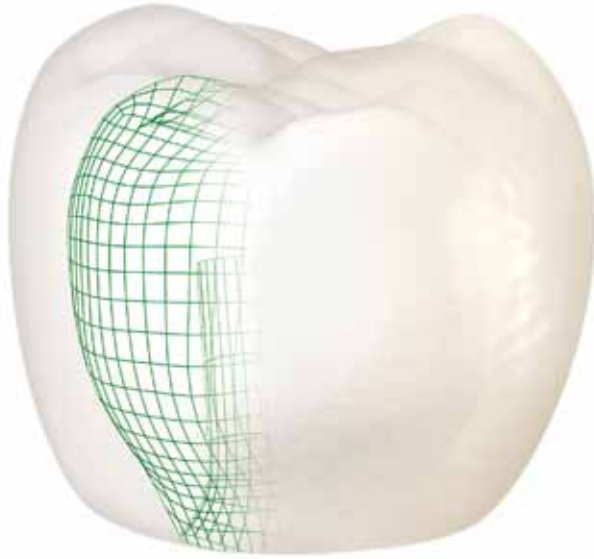
only minimal modification. Quality assurance is reinforced by a five-year warranty on all PMRs (except acrylic temporaries).

Most important, NobelProcera products and materials are backed by more than 15 years of cumulative clinical experience and research confirming long-term success, outstanding durability, mechanical stability, functionality, and esthetics.

NobelProcera expands a clinician's capabilities for delivering high-quality individualized prosthetics. Because tooth preparation and cementation routines are similar to conventional crown-and-bridge techniques, this system is exceptionally easy to integrate into any practice.

See how the NobelProcera crown is made on:
<http://science.discovery.com/videos/hot-videos-how-its-made/>





Key Take-Aways

- 15+ years of clinical experience and research
- Long-term success and efficacy of functionality and esthetics
- CAD/CAM precision fit and material homogeneity for strength and durability
- Excellent soft-tissue management and biocompatibility
- Individual design for precision of fit and esthetics
- Industry's only 5-year product warranty against material breakage or defects (excludes acrylic temporaries)

Testimonials

"The wide range of clinical applications and positive patient response has made NobelProcera an important part of our practice for some time. NobelProcera offers us a level of predictable esthetics with amazingly consistent fit, and its cost effectiveness enables our group of four in-house technicians to focus on veneering, while leaving core production to NobelProcera."

*Jonathan Ferencz, DDS, FACP
NYC Prosthodontics
New York City, New York*

"NobelProcera is the perfect tool for creating dental excellence. NobelProcera restorations have not only improved my professional value and increased my number of patients, they have strengthened the workflow within our entire team—from impressions, provisionals, abutment design, material selection to final restoration."

*Enric Pintado, DDS
Centre Dental
Manresa, Spain*

"NobelProcera has been our choice for CAD/CAM technology since 1998. We specialize in producing single-unit and bridge prosthetics for implant restorations. Products such as NobelProcera Implant Bridge for partial and full arches offer us an extensive choice of restorative options; and the titanium bars/frames and zirconia subframes always fit perfectly. These products create savings in time and materials, which make them the most cost-effective, predictable, and functional choices available."

*Robert Hill
Robert Hill Ceramics Pty Ltd.
Melbourne, Australia*

"NobelProcera provides dental technicians the complete solutions they need to get involved in serious CAD/CAM—from the most efficient crown-and-bridge design tools to the more complex implantology-related applications. The new NobelProcera CAD software version is going to unveil a whole new world of exciting projects for all customers."

*Jean Robichaud, CDT, Fellow and Master of the ICOI
BioCad Medical, Inc.
Quebec City, Canada*

Learn more about NobelProcera at
www.nobelbiocare.dentalaegis.com



Portrait: NobelReplace™

One of the preferred systems for surgeons and restorative clinicians worldwide, the NobelReplace implant system is uniquely suited to all levels of experience—providing ease of use and predictability for the beginning user, along with the flexibility and broad applications that experienced users demand. Ideal for both functional and esthetic single-tooth restorations, this versatile implant system combines simplicity of use with extensive capabilities.

For the starter user: The NobelReplace system is the clear choice when establishing an implant practice. From the beginning, its flexibility increases the options available to patients, while its design enhances predictability and clinician confidence. All components are color coded for quick, accurate identification. Color coding of the surgical kits shows which drill to use during the procedure. In addition, the standardized

step-by-step drilling protocol simplifies site preparation by minimizing the number of drilling steps required.

For the experienced user: This all-around system supports an entire implant offering, providing consistent restorative outcomes. NobelReplace Tapered can be placed in more demanding indications, such as between converging roots of adjacent teeth. The tapered design offers optimal initial stability and predictable osseointegration results. The drilling protocols support both flap and flapless surgical procedures, as well as immediate or delayed loading of restorations. The internal tri-channel connection supports all forms of restorative solutions with secure, accurate prosthetic positioning. Finally, experienced users can be confident that as technology advances, this implant system will remain at the forefront.

Case Study: NobelReplace

Michael R. Sesemann, DDS
Omaha, Nebraska

Bruce Kuhn, MD, DDS
Omaha, Nebraska

Immediate Implant Placement, Provisionalization, and Restoration for Single Tooth Replacement

A 27-year-old woman presented to the office with a chief complaint concerning the esthetics of the porcelain-fused-to-metal (PFM) crowns on her maxillary lateral incisors, which had been placed at different times in the early 1990s. The objective was to use contemporary materials and techniques to have them blend better with her natural dentition. In general, the patient's periodontal health was excellent. A slight amount of inflammation of the gingival tissues was present around the PFM crowns.

“

Immediate implant placement and provisionalization was used to maintain the existing periodontal architecture.

”



PFM crowns on teeth Nos. 7 and 10. Treatment plan included extraction of tooth No. 10, with immediate implant fixture placement (NobelReplace Select) and immediate provisionalization.



Radiograph illustrating root resorption of tooth No. 10 and a chronic periapical abscess in tooth No. 11.



Placement of the rubber gasket onto the NobelReplace Select Immediate Implant Abutment.



Close-up view of implant/crown illustrating favorable periodontal response, closed cervical embrasures, and none of the gingival inflammation seen in the patient's before images.

The world's most used implant system

Prosthetic connection design

Tri-channel internal connection provides tactile and direct feel when positioning the prosthetic components. Color coding for easy and fast identification of prosthetic components.

Standardized tapered drilling protocol

Designed to offer high predictability

Implant body design

Apical part is tapered and coronal part is parallel, allowing for placement in both extraction sockets and healed sites



Collar design

Collar designed for soft and hard tissue integration

Groovy™

Bone forms faster within the grooves, compared with implants without grooves

TiUnite™

Documented to enhance osseointegration, increasing the predictability of implant treatment



Key Take-Aways

- Easy-to-use, predictable implant
- Offers both new and experienced implant users a system unique in its flexibility and breadth of applications
- Ideal for both functional and esthetic single-tooth restorations
- Color coded for ease of use
- Ideal starter implant system that can grow with the experience of the clinician
- Internal tri-channel connection system for very accurate and secure prosthetic restorations
- Preferred referral implant system offering a broad range of prosthetic assortment
- Ideal implant for single-tooth restorations, both in the posterior and anterior areas

View the entire case study and learn more about NobelReplace at www.nobelbiocare.dentalaegis.com



Portrait: NobelActive™

Designed with clinicians' needs in mind, NobelActive offers maximum versatility in placement and restorability, along with high initial stability, even in compromised bone indications.

NobelActive is an advanced implant system that requires previous implant experience and special training. With its unique tip and thread design, NobelActive delivers high initial stability in all indications. Experienced users can take advantage of its gradual bone-condensing property and apical drilling blades to make fine adjustments to implant orientation—optimizing the final position of the prosthetic connection. Parallel drilling protocols offer dental professionals the flexibility to match individual patient prerequisites in preparing the implant insertion site. Built-in platform shifting,

designed to increase the volume onto which alveolar soft tissue can grow, produces a better tissue interface and more natural-looking esthetics.

To satisfy the demands of restorative clinicians, the NobelActive prosthetic connection is designed to accommodate many restorative options. A comprehensive prosthetic portfolio is available for NobelActive, including NobelProcera individualized prosthetics, for natural-looking restorations. With this broad prosthetic assortment and the restorative flexibility of the dual-function internal conical connection, great versatility is possible for achieving beautiful, natural-looking esthetics.

Case Study: NobelActive



“

A NobelActive implant was chosen because of the ability to redirect the implant if necessary, the implant's high degree of primary stability at the time of insertion, and the characteristics of the internal implant platform.

”



Preoperative intraoral frontal photograph of tooth No. 9, which had undergone prior treatment with root canal therapy and placement of an endodontic post/core and porcelain-fused-to-metal crown.



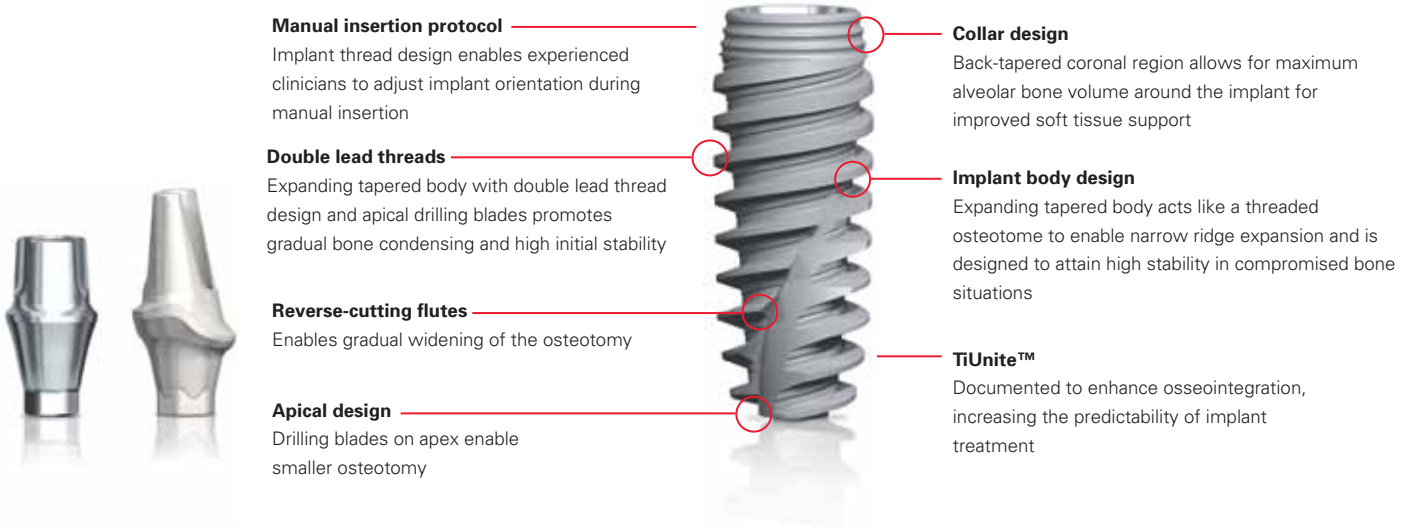
Initial 2-mm osteotomy, redirecting the implant in the anterior extraction socket.



Insertion of a NobelActive implant (4.3 mm x 13 mm) using the surgical driver and manual insertion technique. The implant was redirected into proper position.



Four months postoperative view of tooth No. 9 with NobelProcera Zirconia abutment in place.



Manual insertion protocol

Implant thread design enables experienced clinicians to adjust implant orientation during manual insertion

Double lead threads

Expanding tapered body with double lead thread design and apical drilling blades promotes gradual bone condensing and high initial stability

Reverse-cutting flutes

Enables gradual widening of the osteotomy

Apical design

Drilling blades on apex enable smaller osteotomy

Collar design

Back-tapered coronal region allows for maximum alveolar bone volume around the implant for improved soft tissue support

Implant body design

Expanding tapered body acts like a threaded osteotome to enable narrow ridge expansion and is designed to attain high stability in compromised bone situations

TiUnite™

Documented to enhance osseointegration, increasing the predictability of implant treatment

Gary Orentlicher, DMD
Scarsdale, New York

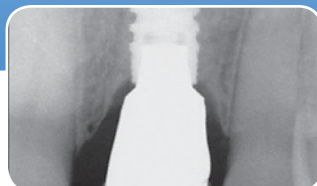
Matthew Teich, DDS
White Plains, New York

Immediate implant placement, maxillary anterior tooth

A 50-year-old man in good medical and dental health presented for replacement of tooth No. 9 because of a root fracture of the previously endodontically treated tooth. Due to the lack of infection and the excellent bone and gingival architecture, it was decided that this patient was a good candidate for immediate extraction, immediate implant placement, and immediate provisional restoration.



Final porcelain restorations. Tooth No. 8 was restored with a matching porcelain veneer.



Postoperative radiograph. This case illustrates the use of the NobelActive's unique design characteristics.

Key Take-Aways

- An ideal implant system offering high initial stability, best qualified for immediate loading and esthetic single-tooth restorations
- Innovative bone-condensing property and TiUnite surface provide high initial stability even in compromised bone conditions
- Allows for two-stage, one-stage, and immediate-loading procedures
- Coronal design and built-in platform shifting for maximum bone volume around implant and improved soft tissue management
- Internal conical connection with hexagonal interlocking for secure positioning of abutments
- Dual-function prosthetic connection accommodates a variety of prosthetic options

View the entire case study and learn more about NobelActive at www.nobelbiocare.dentalaegis.com



Portrait: NobelGuide™

Enhance treatment predictability and confidence with NobelGuide. This system is the ideal solution for diagnostics, treatment planning, and guided implant placement for a successful single-tooth restoration on a dental implant.

Designed with user flexibility in mind, NobelGuide allows the complete planning of a single-tooth restoration. The software includes a user-friendly, intuitive interface. Planning the entire treatment in a 3D environment minimizes the uncertainties associated with dental implant restorations. After the treatment plan is finalized, a corresponding surgical template is calculated directly from specifications of implants being used. NobelGuide offers the option to order this surgical template online with only a few clicks.

NobelGuide is compatible with all Nobel Biocare two-piece implant systems. Tooling, drill kits, and corresponding drilling protocols are optimized for ease of use. Through a built-in order manager, NobelGuide provides access to an integrated supply chain. This enables treatment-specific surgical and lab components to be ordered simultaneously with the surgical template.

NobelGuide offers versatility in restorative methods, serving all scenarios—from simple to complex cases, as well as immediate function and conventional healing protocols. The resulting benefits of treatment planning for patients are substantial—safe, less invasive techniques; less pain and swelling; reduced chairtime; and long-term success.

Case Study: NobelGuide



“ This NobelGuide case is about patient management and a team approach to achieve a patient’s desired request. ”



From the wax-up, a radiographic guide was constructed with teeth replacing Nos. 2 through 4, per the Nobel Biocare design.



Image from software diagnostic workup. A virtual surgery was performed with the Nobel Guide Software.



Image from software diagnostic workup. It was decided that implants could be placed in such a manner as to avoid the sinus lift and augmentation.

View the entire case study and learn more about NobelGuide at www.nobelbiocare.dentalaegis.com

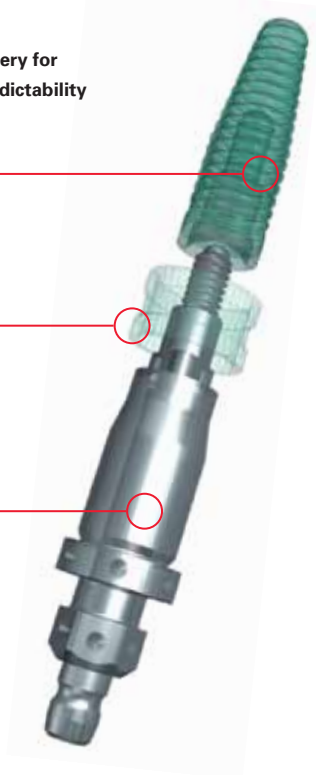


Fully guided implant surgery for maximized treatment predictability

Implant
Implants are securely attached to the guided implant mount

Guided sleeve
Positioned in the surgical template, guided sleeves help execute a safe surgery

Guided implant mount
With the guided sleeve and guided implant mount, NobelGuide allows for fully guided implant insertion



Key Take-Aways

- Diagnostics, treatment planning, and implant placement—executing the planned surgery with high predictability
- Supports users in the treatment process
- Allows dental professionals to decide all relevant decisions of treatment path—far in advance of the surgical procedure
- Supports less invasive treatment as it allows for flapless surgical protocols—minimizing patient discomfort, pain, and swelling
- Designed with a built-in ordering function

Daniel J. Velinsky, DMD
Stuart, Florida

William E. Lippisch, DMD
Stuart, Florida

Clinical Case Report: CBCT-Guided Implant Surgery Reducing Surgical Morbidity

The patient, a healthy 62-year-old woman, was referred by a local periodontist for an implant evaluation. She was missing teeth Nos. 1 through 4. Her oral hygiene was excellent, and there was no evidence of active periodontal disease. The patient’s treatment goal was to have teeth in the posterior with which to chew, and she wanted treatment performed without the use of systemic antibiotics.



The surgical guide was ordered through the software and produced by Nobel Biocare via stereolithographic rapid prototyping. The guide was tooth-borne with one anchor pin included to aid stabilization.



Implant placement at site Nos. 2 through 4. The Nobel Biocare Guided Surgery protocol was followed, including placement of an anchor pin and use of a guided template abutment.



After all three implants were placed, the guide was removed, any tissue tags present were removed, and healing caps were placed on each implant.



Four months post-surgery, the porcelain veneer crowns were tried in, cemented, and the occlusion adjusted. Using CBCT technology, the team was able to respect the patient’s needs.

Research & Partnerships

Academic Partnerships

United States

Case Western Reserve University School of Dental Medicine

Loma Linda University School of Dentistry

Louisiana State University School of Dentistry

Medical College of Georgia School of Dentistry

New York University College of Dentistry

Tufts University School of Dental Medicine

University of California, Los Angeles, School of Dentistry

University of Maryland Dental School

Canada

University of British Columbia

University of Toronto

Australia

University of Sydney

Belgium

Katholieke Universiteit Leuven

China

Peking University School of Stomatology

Shanghai Jiao-Tong University College of Stomatology

The 4th Military Medical University School of Stomatology

Wuhan University School of Stomatology

SUN Yat-sen University GuangHua School of Stomatology

Estonia

University of Tartu

Germany

Charité Universitätsmedizin Berlin

University of Freiburg

Israel

Hebrew University — Hadassah

Saudi Arabia

King Saud University

United Kingdom

University of Sheffield

Vietnam

Ho Chi Minh City University

Scientific Evidence

NobelProcera

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NobelReplace

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NobelActive

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Irinakis T, Wiebe C. Initial torque stability of a new bone condensing dental implant: a cohort study of 140 consecutively placed implants. *J Oral Implantol*. 2009;35(6):277-282.

Irinakis T, Wiebe C. Clinical evaluation of the NobelActive implant system: a case series of 107 consecutively placed implants and a review of the implant features. *J Oral Implantol*. 2009;35(6):283-288.

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Lindeboom JA, van Wijk AJ. A comparison of two implant techniques on patient-based outcome measures: a report of flapless vs. conventional flapped implant placement. *Clin Oral Implants Res*. 2010;21(4):366-370.

Cantoni T, Giovanni P. Implant treatment planning in fresh extraction sockets: use of a novel radiographic guide and CAD/CAM technology. *Quintessence Int*. 2009;40(9):773-781.

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Rocci A, Martignoni M, Gottlow J. Immediate loading in the maxilla using flapless surgery, implants placed in predetermined positions, and prefabricated provisional restorations: a retrospective 3-year clinical study. *Clin Implant Dent Relat Res*. 2003;5 Suppl 1:29-36.

Articles & Publications

Evolving Implant Design. The NobelActive Implant: Discussion and Case Presentations

Gary Orentlicher, DMD; and Matthew Telch, DDS
Compendium — February 2010

Clinical Case Report: Immediate Implant Placement, Provisionalization, and Restoration for Single-Tooth Replacement

Michael R. Sesemann, DDS
Compendium — October 2009

Immediate Single-Tooth Replacement, Provisionalizations

Graham Magee, BDS, MMedSci
Dental Tribune — March 2010

What Is it About NobelReplace™ that Makes it the Most Widely Used Implant System in the World?

Jack Hahn, DDS
VISTAS Complete and Predictable Dentistry — April 2009

Using Cone-Beam Computed Tomography and 3-Dimensional Implant Planning Software: The Restorative Dentist's Role

James B. Wooddell, DDS; and Joseph C. Passaro, DDS
Inside Dentistry — August 2009

Parameters for Successful Implant Integration Revisited Part 1: Immediate Loading Considered in Light of the Original Prerequisites for Osseointegration

Oded Bahat, BDS, MSD, FACD; and Richard M. Sullivan, DDS
Clinical Implant Dentistry and Related Research — May 2010

Parameters for Successful Implant Integration Revisited Part 2: Algorithm for Immediate Loading Diagnostic Factors

Oded Bahat, BDS, MSD, FACD; and Richard M. Sullivan, DDS
Clinical Implant Dentistry and Related Research — May 2010

Research Partnerships

United States

University of Texas,
San Antonio

University of Alabama,
Birmingham

University of Pittsburgh

Nova Southeastern
University

New York University
at Stony Brook

University of Illinois,
Chicago

Germany

Ludwig-Maximilian's
University Munich,
Department of Dermatology
and Allergology

Sweden

University of Stockholm

Switzerland

University of Zurich,
Competence Center for
Applied Biotechnology and
Molecular Medicine

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www.nobelbiocare.dentalaegis.com



Corporate Training Philosophy

Training & Education

The Importance of Continuous Learning

Nobel Biocare offers a full range of training and educational events, from courses to help improve basic implantology and restorative skills to more advanced programs for experienced professionals. These programs are designed to help clinicians integrate Nobel Biocare products and solutions into their dental professional practices.

Throughout all Nobel Biocare's programs, the emphasis is on learning and practicing the skills clinicians need to offer patients the best and most efficient solutions.

For All Levels of Experience

Nobel Biocare acknowledges the profound importance of continuing education and training for all dental professionals, both starting and advanced users. Therefore, Nobel Biocare provides a nationwide network of comprehensive individualized dental education courses and training support for all of its products and solutions—from undergraduate programs in partnership with leading universities to a full range of post-graduate courses and professional training programs—covering all stages of professional development.



Testimonials



"Our great reputation for esthetic and durable restorations has been enhanced by our exclusive use of Procera Zirconia crown and bridgework. The quality of these products is second only to the fantastic support and responsiveness of the company and our local NobelProcera and Nobel Biocare representatives."

*Mark G. Marinbach
President, Nu-Life Dental Lab
Long Island, NY*



"The NobelGuide System has been revolutionary for my patients and my practice. The less invasive technique and significantly shortened treatment time have been extremely well received by my patients; they are truly amazed! For the first time, my restorative colleagues and I share in the exact positioning of each implant, resulting in a true partnership in the treatment planning of each case."

*Jay Fishbein, DMD
Private Practice in Periodontics and Implantology
Bellmore, NY*



"I highly recommend the NobelActive for immediate placement, anterior indications, soft bone, and as a 'rescue' implant."

*John Wesley (Wes) Emison, MD, DDS
Private Practice in Oral and Maxillofacial Surgery
San Jose, CA*



"I have used Procera for years with great success. The esthetics and fit are excellent and please even the most demanding patient. NobelProcera and NobelProcera Zirconia are my materials of choice for implant crowns, custom abutments, and all porcelain restorations."

*Andrew G. Mortensen, DDS
Private Practice in Cosmetic and Comprehensive Dentistry
Fountain Valley, CA*



"The NobelActive Implant has opened new opportunity and changed the protocol that my restorative colleagues and I use to treatment plan. Immediate loading of implants has become the predictable standard in my practice, in all types of cases. Most implants are immediately loaded with a high degree of long-term success. The unique design of the implant allows for incredible primary stability at torque values well above 50 Ncm. This can be achieved in the most compromised situation, and I still have the high level of confidence that I have always relied upon with Nobel implants."

*Edward I. Jutkowitz, DMD
Private Practice in Periodontics and Implantology
Manhattan and Roslyn Heights, NY*



"Nobel Biocare has been the leader in CAD/CAM and metal-free technology. Their innovations have made our staff much more productive so we can still grow. The NobelProcera product line is the gold standard in implant and metal-free restorations. Their guided surgery software has revolutionized the way more complex case are done. It has taken the guesswork out for the lab and made these cases much easier on the patient."

*Sven Jesse
Owner and Master Ceramist, Jesse & Frichtel Dental Labs
Pittsburgh, PA*

Access Nobel Biocare training and educational course schedules at www.nobelbiocare.com/training



Course List



Nobel Biocare offers a broad range of training and educational events, from courses aimed at improving basic implantology and restorative skills to more advanced programs aimed at experienced professionals.

The focus throughout our training and education programs is on practicing the skills you need to optimally integrate our portfolio of products and solutions into your dental practice or laboratory so you can offer patients the best and most efficient solutions.

Restorative

October 9 Strategies for Restorative Success in the Esthetic Zone with Teeth and Implants

*Jean-Francois Bedard, DDS
Yorba Linda, CA*
\$295

This program addresses the challenges of conventional/enhanced protocols, soft-tissue deficiencies, and optimal implant selection and position.

October 15 Advanced Topics in Esthetic and Implant Dentistry with Hands- On Workshop

*Edward Narcisi, DMD
Farmington, CT*
\$295

This program is not only designed to reinforce the basic concepts of esthetic and implant dentistry, but more importantly it is intended to expand on the next level of treatment sophistication. It utilizes real case studies to deliver a detailed approach to diagnosing, treatment planning, case presentation, professional communication, material selection, and delivery.

October 15-16 Digital Treatment Planning for Implant Surgery

*Gary Orentlicher, DMD
Mahwah, NJ*
\$2,000

The NobelGuide™ concept is applicable for any indication from a single-tooth to a full-arch restoration. Covering the simplest of procedures, NobelGuide™ brings multiple technologies together allowing you to provide state-of-the-art treatment for your patients.

December 3-4 Successful Implant Prosthetics

*Sam Strong, DDS
Yorba Linda, CA*
\$695

This 2-day program will provide an in-depth lecture, hands-on training, and treatment planning session for the clinician in the use of the NobelReplace™ prosthetic system. In addition, the course includes a review of hygiene maintenance needs and techniques, laboratory fees for various cases, and how to determine an appropriate patient fee, as well as information for front office use in coding and charging out the implant cases.

Ongoing Courses

Below is a selection of ongoing course topics offered by Nobel Biocare. To find out when and where these are available in your area, contact your local Nobel Biocare sales office or visit www.nobelbiocare.com.

Esthetics Workshop

This program is for dental teams who want to provide their customers with high-end dental esthetics. The esthetics workshop provides a platform for teams to increase their knowledge within the field, both practically and theoretically.

NobelProcera™ System

This program covers the management of all restorative solutions involving natural teeth and implants using the NobelProcera System. This unique technology offers broad treatment options, which enable dental technicians to deliver the ultimate esthetic and functional customized restoration. Upon completion of this program, attendees will understand: the versatility and possibilities of the NobelProcera System; NobelProcera solutions, indications, and materials; how to operate the NobelProcera Optical Scanner; and how to design restorations using the NobelProcera Software.

Interdisciplinary Management of Implants in the Esthetic Zone

This presentation outlines the contemporary surgical and prosthetic concepts in the management of implants in the esthetic zone in order to achieve optimum long-term esthetics and stability. Emphasis will be placed on clinical management and on understanding the biological factors that influence treatment outcomes. An interdisciplinary approach is the key to optimal case management, and this will be demonstrated by cases ranging from single-tooth to complex multiple-teeth restorations.

Concepts in Restorative Implant Dentistry

Patients today are increasingly aware of dental implants, and they expect long-lasting, esthetically and functionally pleasing implant restorations that mimic natural teeth. This program gives dental practitioners a better understanding of how restorative implant dentistry has evolved. Treatment planning and restorative options for single implants will be discussed, and the use of modern high-strength materials such as zirconia and CAD/CAM technology in fabricating fixed implant-supported prostheses will be demonstrated.

NobelReplace™ and NobelActive™ Prosthetics

This course will enable dental practitioners to understand the restorative procedures, as well as usage of the core prosthetic components of NobelReplace Tapered and NobelActive implant systems. This will include gaining a better understanding of impression taking on an implant level and an abutment level, as well as two-stage, delayed-loading and immediate-loading clinical protocols.

NobelActive™

This course is designed for surgeons who wish to expand their treatment capabilities to include placement of the NobelActive implant. This program is designed to present clinical solutions with NobelActive, and demonstrate clear benefits from the patient and clinician's perspective over other implant systems.

Advanced NobelGuide™ Course for Clinicians

This program reviews concept protocols and focuses on new features and benefits of the NobelGuide Software including planning with NobelActive. Participants are encouraged to bring cases along for discussion and review. Upon completion of this program, attendees will understand the new features of NobelGuide compared with the previous version; the rationale of extraction at the day of surgery; and the indications for using NobelGuide with NobelActive.

If you would like detailed information on any of our training courses, please contact Training and Education at 800-579-6515 or browse the course directory on our website:

www.NobelBiocare.com.

Contact Information

Phone:
800-579-6515

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info.usa@nobelbiocare.com

www.NobelBiocare.com.

Access Nobel Biocare training and educational course schedules at www.nobelbiocare.com/training



