

2010 Corporate Forum – Participating Companies

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Session Times

Session 1A 8:00 – 8:45 am
Session 1B 9:00 – 9:45 am

Session Times

Session 2A 10:15 – 11:00 am
Session 2B 11:15 am – noon

ACE Surgical Supply Co.

Sessions 2A & 2B

Osteocel – A Stem Cell Application for Implant Site Preparation and for Around Natural Teeth

Bradley S. McAllister, DDS, PhD

We have entered an exciting era in dental surgery where we now have a cellular bone graft product available without the autogenous bone graft harvest requirements. This presentation will show clinical cases employing Osteocel for sinus augmentation, horizontal ridge augmentation, implant repair and periodontal regeneration. Histologic evaluation from a multi center sinus augmentation study will also be reviewed.

Astra Tech

Welcome To a Good Morning With Astra Tech – Moving Towards New Standards in Implant Dentistry

Moderator: Michael R. Norton, BDS, RCS

With modern technology and well-proven products, it is possible to recreate what nature once intended. However, old truths must be challenged along the way in order for new standards of success to be defined. Innovations in implant dentistry often require the need to adopt the way we think and act, but will ultimately benefit not only the dental practice but also the long-term care of the implant patient. Are you up to the challenge?

Session 1A

Reasons for Bone Loss Around Oral Implants and Suggestions for New Criteria of Success

Tomas Albrektsson, MD, PhD

Our old criteria stated that 1mm of bone may be lost in the first year and less than 0.2mm annually thereafter to call an implant successful. Today, many papers have reported alleged problems from peri-implantitis around implants, whereas others have incriminated overloading for the major part of noticed bone loss figures. However, when scrutinized, it seems like the reasons for peri-implant bone loss relates to the healing adaptation theory and that neither peri-implantitis nor overloading would be likely explanations in the great majority of clinical cases. Despite some bone loss being reported, results today seem better than those published 25 years ago. Is a revision of our criteria for success therefore needed? Should we be suggesting only 0.5mm of bone loss in the first year and 0.1mm annually thereafter as a suitable criterion?

Session 1B

Short and Narrow Implants – Minimally Invasive Alternative to Grafting for Management of Compromised Sites

Homayoun H. Zadeh, DDS, PhD

There is often some degree of atrophy in sites where implants are to be placed. Pathologic conditions such as periodontitis, endodontic infections, or trauma can have a considerable impact on the alveolar ridge, causing horizontal or vertical bone resorption. One solution for the treatment of alveolar ridges with compromised horizontal and vertical height is the use of narrow or short implants. The major advantage of narrow and short implants is to obviate the need for more invasive grafting procedures, thus making implant therapy feasible for a wider number of patients. There is considerable scientific evidence in support of short and narrow implants which have demonstrated favorable clinical results comparable to standard-size implants. However, careful selection will be required to ensure appropriateness based on the functional and esthetic requirements of each case.

Session 2A

Implants and a Digital Menu – Pursuing Excellence

Lyndon F. Cooper, DDS, PhD

This presentation will explore the integration of digital technologies in the pursuit of clinical excellence using dental implants. The technologies include 1) treatment planning with CBCT and related software; 2) a role for guided surgery; and 3) creation of prostheses including abutments and culminating in entire prostheses.

Today, we have begun to integrate all aspects of therapy (planning, surgery, prosthesis construction) in our digital world. The ability to gather clinical data to a central place for consideration of treatment options and the ease of digital manipulation to permit iterative consideration of different treatment plans are among the key attributes of integrated digital therapy. This presentation will illustrate how we are learning to work in a digital environment yet remain related to the biologic world. Different clinical scenarios will illustrate how we currently use digital technology to learn, teach and provide dental implant excellence.

Astra Tech (continued)

Session 2B

Implants in Compromised Sites

Bach T. Le, DDS, MD

The esthetic demand in implant dentistry is ever growing. Simply having an implant integrated and restored is no longer the only benchmark for success. Esthetic management of the hard and soft tissue is of paramount importance in a successful implant practice. Unfortunately, the extraction of teeth results in alveolar bone loss due to resorption of the edentulous ridge. Up to 40-60% of alveolar bone width and height can be lost within the first year after tooth extraction. This reduction in bone volume can negatively affect the edentulous site for future implant placement. Even a small amount of labial ridge contraction, although adequate for implant placement, can result in compromised esthetics.

BioHorizons

Session 1A

Impact of Surface Technology and Abutment Design on Implant Placement and Restorative Protocols

Scott D. Ganz, DMD

In recent years, several advanced technologies have been introduced to further enhance the success and esthetic outcomes of dental implants. The introductions of new restorative protocols, 3-D imaging and new implant/abutment designs provide dentists with so many options. It is more difficult than ever to know which treatment plan is the best for each patient, each implant receptor site, and the variations in bone topography for delayed vs immediate protocols. This session will help you bring each of these topics together to produce a comprehensive, yet simple and reproducible treatment protocol which takes advantage of specific features of the implant design and the variation in restorative components.

Session 1B

Connective Tissue Attachment – A Paradigm Shift in Dental Implant Treatment

Myron Nevins, DDS

Recent research has demonstrated the effectiveness of laser-ablated microgrooves placed on implant collars to support direct connective tissue (CT) attachment, a biologic phenomenon previously believed to be impossible. Such a direct CT connection serves as a physiologic barrier to the apical migration of junctional epithelium, and prevents crestal bone resorption. New research is now available that evaluates bone and soft tissue healing patterns when laser-ablated microgrooves are placed on the abutment margin. This novel application of existing technology will be reviewed and the following questions addressed: Is the 1.5 - 2.0 mm loss of crestal bone following abutment connection a physiologically inevitable event? Is a change required in how implant abutments are perceived and clinically managed?

BIOMET 3i

Session 1A

Simplified Implant Impression-Making Strategies

Stephen J. Chu, DMD, MSD

Conventional impression-making systems for implant restorations can involve multiple time consuming and technique sensitive steps. Innovative strategies in 3-D spatial location at the implant level can be used with Encode® healing abutments to predictably register the internal hex of the implant. In addition, the use and design of customized zirconia abutments using Encode technologies will be presented.

Session 1B

Predictable Bone Augmentation to Enhance Clinical Success

Robert A. del Castillo, DMD

This presentation will provide the clinician with comprehensive knowledge of literature based on clinically supported information regarding site specific regeneration, grafting materials, membranes and combination therapies to achieve successful outcomes. An understanding of new technologies and materials in implant rehabilitation will be discussed.

BIOMET 3i (continued)

Session 2A

Guided Implant Surgery – Model-Based and CT-Generated Scenarios

Michael S. Block, DMD

Guided implant surgery utilizes a CT surgery kit with drill-specific handles and tubes to place implants in exact positions. After the restorative plan is devised, models can be used with appropriate scanning to place analogs and develop guided surgery stents in the laboratory. Another option is the use of CT scans and planning software to generate guide stents. This presentation will demonstrate multiple cases involving both model-based and CT-generated guide stents in highly esthetic situations, and in patients whose bone width and height is compromised.

Session 2B

Integrating Biomechanical and Biological Aspects Into Clinical Practice

Tiziano T. Testori, MD, DDS

This presentation will focus on the clinical procedures of site preparation to simplify the steps leading to an optimal primary implant stability. The lecture will also provide practical guidelines on how to choose the implant design that best fits the clinical situation along with the surgical technique in immediate implant placement. The biomechanical and biological aspects of high primary implant stability and pressure necrosis related to clinical practice will also be covered.

DENTSPLY Tulsa Dental Specialties

Session 1A

Tissue Care Factors, Contemporary Techniques for Long-Lasting Esthetic Outcomes

Nigel Saynor, BDS

The success rates for dental implant therapy are very well documented with percentage success rates in the lower to middle 90 percentile range considered the acceptable normality. These figures invariably refer to the survival of the implant and have little or no regard to the esthetic values that we place on our treatments. Long-term stability of the peri-implant soft tissues is of paramount importance to esthetic success and the patient's expectation. A survey carried by usdentalsurvey.com found that 70% of dental implants are for the total replacement of a single tooth. Various factors which are in the control of the clinician can influence the outcome, utilizing an implant which can demonstrate a tissue care concept, platform offset, rigid connections, and etching to the top of the implant, can have a positive impact on the outcome of esthetic implants.

Session 1B

Microgaps, Socket Healing and Their Influence on the Peri-Implant Hard and Soft Tissue Outcome – Implant Esthetics Revisited

Dietmar Weng, DMD

Shape and amount of peri-implant soft tissues are highly dependent on the underlying bone tissue because soft tissue esthetics around implants is difficult to create, predict or maintain without bony support. Therefore, prosthetic-driven and esthetically oriented implant dentistry aims at hard tissue maintenance. In order to preserve peri-implant bone tissue on a long-term basis, it is favorable not to lose bone after implant insertion. Combined with good oral hygiene, this will also ensure esthetic long-term success. However, it is known that the implant-abutment connection influences the shape and amount of peri-implant bone tissue. This should be considered when planning esthetic success with implants. In addition, knowledge has been gained as far as the healing process after tooth extraction is concerned. What are the clinical consequences of the microgap effect and the loss of bundle bone after extraction? Can they be avoided or counter-balanced? The tissue is the issue but the bone sets the tone. Is the screw the clue?

Keystone Dental, Inc.

Session 2A

Predictable Bone Regeneration in Alveolar Defects – Securing the Future of Teeth and Implants

Monish Bhola, DDS

Successful regenerative therapy includes sufficient volume of hard and soft periodontal and peri-implant tissues. Guided tissue and bone regeneration when performed prior to, or in conjunction with, implant placement is a critical part of comprehensive treatment planning. This presentation will include a clinically oriented discussion on the successful and predictable use of demineralized and mineralized bone graft substitutes, DynaBlast™, and DynaGraft-D™ as well as DynaMatrix™, a porcine resorbable membrane for a wide range of regenerative procedures. The inherent advantages of these products demonstrated in clinical handling and suitability for simple and complex bone and soft tissue defects associated with teeth and implants will be discussed.

Session 2B

Utilization of Dynablast and Dynamatrix to Replace Autogenous Harvest of Bone and Gingiva

Myron Nevins, DDS

There is an ongoing quest to identify the appropriate biologics to achieve our regenerative goals for both hard and soft tissue. The end point goals of efficacy are often satisfied by preclinical investigations but human trials are more easily translated to our clinical decisions. The past decade has sought answers for the appropriate management of extraction sockets and the elevation of the sinus floor to accommodate implant placement. Many patients require enhancement of the zone of attached gingiva for both teeth and implants with a material that could replace autogenous grafting. This presentation will demonstrate the use of Dynamatrix and Dynablast to accomplish these goals.

Medtronic

Sessions 1A & 1B

Correlating the Class of Defect With the Appropriate Bone Grafting Technology – rhBMP-2 to Allograft and Synthetics

Craig M. Misch, DDS, MSD

This presentation will discuss the utilization of an accepted defect classification system while addressing the various mechanisms of action of bone grafting materials including rhBMP-2. The presentation will discuss how to determine the appropriate grafting material needed to address the clinical defect and desired outcome.

NEOSS

Session 2A

Influences of Implant Design and Surface Properties on Osseointegration and Implant Stability at Early/Immediate Loading

Jan Gottlow, DDS

Several factors influence the immediate and long-term stability of dental implants. At the time of implant placement, the achievement of mechanical stability is related to the macro design of the implant, the surgical technique applied, and the density of the bone. Later, during the healing phase, it is the surface properties of the implant that will influence the biological response that follows. Histological studies in humans and animals have shown enhanced bone response to modified surfaces when compared to the traditional machined implant surface. This presentation will examine the emergence of novel implant surfaces and will guide the clinician through what is good, what is bad, what is evidence-based, and what is clever marketing by the industry. The Neoss Proactive surface will be introduced and its osteoconductive properties with enhanced bone growth at the implant-bone interface will be demonstrated.

NEOSS (continued)

Session 2B

Minimally Invasive Surgery and Establishing a Proper Emergence Profile – What's In Your Armamentarium?

William Becker, DDS

Implant placement using immediate implant placement or minimally invasive surgery are established and predictable procedures. What is lacking is the where and how to establish a proper emergence profile once the implant has integrated. We will present step-by-step protocols for achieving predictable outcomes for minimally invasive surgery as well as how to achieve an esthetic soft tissue result following establishment of soft tissue emergence profiles. New healing abutments as well as impression copings will be presented. The emergence profile protocol was developed together with Dr. John Doerr and Neoss Implant Systems.

Nobel Biocare, USA Inc.

45 Years of Clinical Experience: Predictable Esthetic Outcomes

Moderator: Peter S. Wohrle, DMD, MMSc

Using a unique interactive format, five internationally recognized clinical leaders will present scientifically documented procedures to help you maximize your patient outcomes. The session is moderated by Dr. Peter Wohrle, who will lead a discussion between the panel members and the audience after each presentation.

Session 1A

Immediate Placement – Immediate Provisionalization in the Esthetic Zone

Joseph Y. Kan, DDS, MS

This evidence-based presentation will focus on current principles and philosophies on immediate tooth replacement in the esthetic zone. In addition, the benefits of various implant design, platform shifting and connective grafts on such procedures will be discussed.

Session 1B

Minimally Invasive or Conventional Surgical Approach?

Lesley David, DDS

There are many treatment options available for the treatment of the edentulous patient with minimal bone levels. This presentation will cover management of complex restorative solutions using short, narrow and long implants including placement in the zygomaticus, tilted implants and the latest generation of implant design. Digital solutions for diagnostics and treatment planning, as well as guided surgery for NobelActive, will be discussed.

Session 2A

Current Biological Trends in Soft Tissue Esthetics

Sascha A. Jovanovic, DDS, MS

This presentation will discuss the current indications, materials, and methods for hard and soft tissue grafting. The latest protocols for soft tissue management will be presented including both preservation and development of the papilla for a long-lasting esthetic outcome.

Session 2B

Fixed or Removable Restorations – What is Ideal for Today's Patient?

Markus Blatz, DMD, PhD

This presentation will cover newly introduced restorative options based on the latest CAD/CAM technology, for both fixed and removable restorations. Newly available options in crowns, abutments and bridges in biocompatible materials will be discussed, along with versatile options for overdenture bars.

Osteohealth

Session 2A

Clinical Application of Xenograft Materials in the Regeneration of Soft and Hard Tissue

Jaime L. Lozada, DMD

This presentation will describe the various clinical applications of xenograft material in preparation and during the placement of dental implants. Special emphasis will be placed on the presentation of clinical techniques and outcomes with the use of this material in the esthetic zone and in compromised clinical scenarios such as deficient ridges and the pneumatized maxillary sinus.

Session 2B

Selection of Appropriate Bone Grafts and Bone Substitutes for GBR Procedures

Daniel Buser, DDS, DMD

Piezosurgery

Sessions 1A & 1B

Piezosurgery – State of the Art in Implantology

Tomaso Vercellotti, MD, DDS

Straumann USA, LLC

Session 1A

Evolving Treatment Options in GBR – Evidence of Today's Techniques and Future Perspectives

Christoph Hämmerle, DMD, Prof. Dr.

Guided bone regeneration is a well established procedure and is widely used for bone augmentation in oral implant surgery. Evidence-based evaluation of the surgical technique and the materials used is intended to help in choosing the appropriate therapy for the individual clinical case. A novel hydrogel technology opens new perspectives in oral bone regeneration. Results from various studies reveal the potential of a hydrogel membrane to improve surgical procedures. Further development of this technology aims at ameliorating bone healing by providing a suitable scaffold for biologically active substances.

Session 1B

Roxolid® – More Treatment Options in Placing Small Diameter Implants

Jan Gottlow, DMD, PhD

The potential of small diameter implants has been limited due to mechanical property limitations coupled with osseointegration requirements. Roxolid™, a new material developed specifically for dental implantology, offers the opportunity to resolve these clinical issues. Biomechanical tests have shown high strength of Roxolid™ small diameter implants. The surface SLActive® has been clinically proven in various studies since market introduction. Newest data underline the excellent osseointegration again. The combination of SLActive® and Roxolid™ features at least the same performance on biomechanical properties. Thanks to high fatigue strength and excellent osseointegration, small diameter implants can be used with more confidence. New treatment options are shown based on clinical experience.

Session 2A

Digital Interdisciplinary Implant Dentistry – Part I

Frank L. Higginbottom, DDS; Thomas G. Wilson Jr., DDS; Jeff Singler, CDT

Session 2B

Digital Interdisciplinary Implant Dentistry – Part II

Frank L. Higginbottom, DDS; Thomas G. Wilson Jr., DDS; Jeff Singler, CDT

Session 1A

Minimally Invasive Techniques in Implant Site Development

Bach T. Le, DDS, MD

Ridge collapse and progressive bone loss are the frequent sequelae of tooth extraction. Extensive grafting for reconstruction and prolonged treatment time are often necessary to restore post-extraction anatomical contours for implant site development. Labial bone loss around unsalvageable dentition is also a common occurrence that can complicate immediate implant placement. This lecture will present simple, minimally invasive procedures to curtail these secondary effects of tooth extraction, and help to preserve natural ridge contours for future implant placement. Topics will include the esthetic management of extraction sites, teeth with labial wall defects or periodontal attachment loss, teeth with active infection, and minimally invasive grafting techniques for the management of horizontal and vertical defects.

Session 1B

Advances in Sinus Augmentation

Hom-Lay Wang, DDS, MSD

Subantral augmentation or the “sinus lift” procedure is designed to increase the volume of sinus floor bone for the proper placement of dental implants. This sophisticated surgical procedure can be performed via lateral access through the maxillary facial plate (modified Caldwell-Luc technique) or by a crestal approach through the alveolar ridge (Internal technique). Both approaches are technique-sensitive, however, and can result in several adverse events. For example, the Schneiderian membrane used for superior graft containment can easily tear during its elevation, and valuable graft materials can potentially be lost from migration. This discussion will present an overview of the latest advances in sinus augmentation techniques. Topics will range from the use of new ultrasonic surgical devices and minimally invasive instruments that gently elevate the sinus membrane to new collagen capsules for graft containment and a full array of mineralized augmentation materials, collagen dressings and other biologic products.

Session 2A

The Future of Dental Implant Materials

Georgios E. Romanos, DDS, DMD, PhD

Improvements in implant design have primarily focused on modifying surface characteristics to increase the attachment of osteoblasts and other macromolecules that contribute to wound healing. The incorporation of threads into implant macro-designs, and osteocompressive surgical techniques have also been developed to help improve primary implant stability and enable the emergency of immediate loading protocols. *Trabecular Metal*[®], a porous tantalum material, is currently being investigated for possible use in dental implant applications, and is not available for dental use in the United States. The material is 75-80% porous by volume and closely approximates the design, strength and elasticity of trabecular bone. It is fabricated by depositing commercially pure tantalum (98%) onto a vitreous carbon (2%) network of interconnecting struts through a chemical vapor deposition process. This technique results in a distinctive surface microtexture that is characteristic of *Trabecular Metal*[®].

Session 2B

Material and Mechanical Characteristics of Porous Tantalum

Brett Levine, MD

This presentation will provide a unique medical perspective on the use of porous tantalum, a technology commonly used in orthopedics. This material is a metallic foam with a repeating, open-cell, dodecahedron microstructure similar to cancellous bone. The material has a distinct and complex surface nanotexture that is not a coating. A wide variety of porous tantalum orthopedic implants have been extensively studied over the past decade. The following presentation highlights the material properties and mechanical characteristics of this metal, which is currently being investigated for potential use in dentistry. This technology is not available for dental use in the United States.