

AAID Boston MaxiCourse Harvard Club of Boston 2021-2022

The Scope of Implant Dentistry

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- Course overview and objectives
- Diagnosis and treatment planning
- **Case presentations-** Basic Surgical and Restorative Concepts
- Single unit
- Multi-unit
- Full Arch
 - Removable -OV-CDI
 - Removable- OV-SDI
- Fixed:
 - FP 1/2
 - FD- Fixed Detachable

Principles of Oral Implantology and Surgery

- Define Osseo integration- clinically/histologically
- Discuss socket grafting rational and protocols
- Basic endosseous root form surgical principles
- Instrumentation
- Consent forms
- Post/Pre-Operative instructions

Videos - Site preservation- socket grafting

Hands on: Basic endosseous root form techniques

Objectives:

At the end of the module, the participants will:

- Comprehend the scope of implant dentistry through extensive case presentations
- Be able to understand the biological, histological and clinical concept of osseointegration
- Learn the history of dental implants
- Learn basic concepts for endosseous implant surgery and prosthetics
- Be able to perform initial diagnostic records
- Perform “hands on” model surgery for endosseous implant surgery and socket grafting
- Understand pre and post-operative instructions associated with implant surgery
- Comprehend diagnostic, case treatment sequences and decision trees for fixed and removable implant treatment

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-Neurological sheet

-Single tooth replacement

-Prosthetic aspect- Protocol, materials and instrumentation

Videos - Case presentation- Fixed and Removable Approach

Pharmacology and Platelet Concentrates for the Implant Patient

Topics:

1. Scientific basis for platelet concentrates (PRP/PRF)
2. Management of Medical Emergencies
3. Pharmacology for the Dental Patient
4. Pre/post-surgery: medication concerns

5. Discussion on importance of preparation of scientific papers in clinical dentistry

- **Hands-on Venipuncture techniques, PRP, PRF development**

Advanced Treatment Planning and Prosthetic Reconstruction

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Prosthetic Reconstruction – FP 1/2 approach

Hands-on: Fixed single/multi-unit restoration

Objectives:

At the end of the module, the participants will:

- Comprehend a medical assessment for the implant patient
- Learn how to perform a neurological evaluation for post-surgical altered sensation
- Comprehend the pharmacology essential for the dental implant patient
- Learn how platelet concentrates (PRP/PRF) enhance the healing process
- Understand what PRP/PRF is?
- Learn to perform “hands on” standard phlebotomy technique and PRP/PRF development
- Comprehend and learn to manage medical emergencies in the dental office
- Participate in a “Hands on” implant prosthetic procedure for the fixed prosthesis
- Learn advanced implant treatment planning: Fixed cases
- Develop an understanding of 2D/3D radiographic anatomy and how it relates to clinical implant surgery
- Comprehend root form surgical techniques and principles

Basic Surgery and Treatment Planning for Full Arch Implant Reconstruction

Implant Surgery- Staged approach

- Flap design
- Implant surgery
- Treatment planning- Implant position, numbers and considerations
- Instrumentation
- Biologics and suturing materials
- **Lunch and learn Tx planning session**

Treatment planning: IPO Principles and Prosthetics Brian J. Jackson, DDS

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- Implant occlusal principles and biomechanics
- Treatment planning- Partially edentulous patient- Fixed
- Bone classification
- Implant Surgery- “step by step approach”
- Case presentations-fixed and removable implant approach
- **Hands-on: Implant placement and osteotomy technique**
- **Hands-on: Prosthetic- Fixed cement/screw retained restorative “All on X” and Overdentures**
- **Videos**

Objectives: At the end of the module, the participants will:

- Comprehend advanced surgical techniques for implant placement
- Learn how guided surgery can enhance surgical outcomes

- Understand 3d planning software and how to design and fabricate surgical guides
- Able to perform prosthetic stages for a fixed and removable prosthesis
- Become familiar with implant surgical instrumentation, basic surgical and prosthetic instrumentation
- Learn “hands on” principles for suturing
- Learn “hands on” osteotomy and implant placement
- Learn “hands on” model prosthetic steps for removable overdenture procedure
- Observe case presentations to enhance understanding of implant treatment sequencing

Maxillary Sinus Augmentation: Lateral/Crestal Approach

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Treatment Planning and Tx- Posterior Maxilla

- Posterior Maxilla- treatment considerations
- Treatment planning and prosthetic considerations
- Prosthetic protocols and materials

Hands on: Sinus surgery- Lateral approach (model, egg)

- **Videos**
- **Lunch and learn- Tx planning session**

Objectives: At the end of the module, the participants will:

- Comprehend advanced surgical procedures via CBCT analysis

- Learn fundamental extraction protocols for immediate implant placement
- Learn various bone grafting materials and utilization in maxillary sinus augmentation
- Perform “hands on” sinus surgery (lateral/crestal) on model
- Be able to determine when to utilize lateral vs crestal approach for sinus augmentation
- Comprehend implant occlusal principles and biomechanics for the fixed prosthesis
- Understand key considerations in regards to patient medical history
- Review case presentations to reinforce implant concepts

Hard and Soft tissue Grafting

- 1) Implant Dentistry in the Esthetic Zone
- 2) Guided bone regeneration principles
- 3) Advanced bone grafting
- 4) Soft tissue grafting, science and techniques
- 5) Basis for referral and clinical decision making

Lunch and learn: Tx planning session

Edentulous Patient: The Fixed conventional: Abutment ceramic metal Implant Approach (FP 1/2)

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- Radiology assessment/clinical evaluation
- Tx planning considerations: Maxillary/mandibular arch
- Surgical placement
- Jaw relationship records
- Prosthetic aspect- Impression techniques
- Laboratory, materials, time

- **Lunch and Learn- Tx planning session**

Case Presentations

- **Hands-on GBR techniques, soft tissue grafts and suturing (Pig jaw)**
- **Hands-on- Overdentures (Prosthetic aspect)**
- **Videos**

Objectives: At the end of the module, the participants will:

- Learn soft tissue grafting techniques, indications, and contraindications
- Perform “hands on” sub epithelial connective tissue graft on pig jaws
- Understand the principles of guided bone regeneration
- Learn various bone grafting materials: indications, advantages and disadvantages
- Understand the basis for referral after patient evaluation
- Learn advanced bone grafting procedures
- Learn the treatment options, advantages, disadvantages and limitations of the overdenture
- Comprehend how conventional and small diameter implants can be utilized in the overdenture patient
- Perform “hands on” overdenture prosthetic procedures on models
- Perform “hands on” PRP/PRF venipuncture and development on live participants
- View case presentations to enhance the understanding of implant therapy

Cadaver session: Anatomy and Surgical Skill Development

Topics:

- 1) Gross anatomy for the implant dentist
- 2) Anatomical structures: Maxilla and Mandible
- 3) Maxillary sinus
- 4) Mandibular nerve (ION)

- 5) Anterior/Posterior maxilla (nerve, artery)
- 6) Anterior/Posterior mandible (nerve, artery)

- **Hands on: Cadaver**

- a. Suturing techniques
- b. Sinus augmentation protocol
- c. Block grafts protocol
- d. Immediate Implant Placement with Provisionalization
- e. Socket Grafting

Advanced Bone Grafting

- **Lunch and Learn: Tx planning session**
- Gross anatomy: Key relationships to implant surgery
- Sinus augmentation
 - o Crestal and lateral approach
- Surgical management- complications
- Implant surgical techniques - Maxilla
- Advanced bone grafting- horizontal and vertical techniques
- **Videos**

Objectives: At the end of the module, the participants will:

- Learn critical anatomic structures for basic and advanced implant surgery
- Perform “hands on” cadaver sinus surgery, socket grafts, nerve repositioning, block grafts and osteotomy procedures
- Comprehend surgical techniques for various regions of mouth and how it relates to implant density
- Perform dissection of cadaver specimen to locate critical landmarks for implant dentistry
- Discuss and learn surgical complications associated with anatomical structures

Edentulous Patient- The Fixed and Removable Implant Approach

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Fixed Prosthesis

1. Conventional- cement/ abutment/ceramo-metal (FP 1/2)
2. Conventional- screw retained “all on X”

Removable prosthesis:

- 1) OD-Conventional Diameter Implants (CDI)
- 2) OD-Small Diameter Implants (SDI)

Case Presentations- Full arch: (Fixed: FP 1/2) and removable overdentures

Lunch and Learn- Tx planning session

Hands-on: Surgical techniques- Full arch “All on X”

Prosthetic techniques- model, Full arch

Videos

Advanced Treatment- 3D, CAD/CAM guided approach

Topics:

- 1) Surgical guides with CBCT and CAD/CAM dentistry
- 2) Fully guided surgery from placement to restoration
- 3) Implant placement and provisional stage
- 4) Integrating implants into your practice

Hands-on- Guided Surgery

Objectives: At the end of the module, the participants will:

- Comprehend the fixed and removable implant approach for the edentulous patient
- Learn the areas of discussion for the removable overdenture fixed abutment and fixed detachable prosthesis
- View the fixed and removable treatment sequence for reconstruction “step by step” flow sheet
- Discuss implant occlusal principles, prognosis, progressive bone loading and treatment considerations for long term success
- Attend advanced treatment planning session
- Participate in a “hands on” exercise on models for full arch removable and full denture prosthesis
- Learn advanced treatment cases utilizing CBCT, CAD/CAM
- Participate on “Hands on” guided surgery
- Understand what a full guided surgery is from diagnosis to prosthetic placement
- Learn how to integrate implants into your practice

Comprehensive Treatment Planning: Surgery/Prosthetics

Treatment plan: Review of maxilla/mandible

Diagnosis

Max/Mandibular relationship

Treatment plan considerations

Surgery

Prosthetics considerations

Removable vs. fixed prosthetic approach

Overdentures, FD, Conventional FP 1/2

Lunch and Learn: Treatment planning session

Immediate Implant Placement Restoration (IIPP)

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- Protocol
- Implant occlusal principles
- Immediate load
- Immediate provisionalization
- IIPP- single tooth approach
- Verification jigs
- Evidence based decision trees
- **Videos**

Implant maintenance

Preparation of associate fellow exam

Case Presentations- “Single to Full Arch”

Hands-On: Fixed single/Multi unit prosthesis

Course Overview

Hands on: IIPP

Objectives: At the end of the module, the participants will:

- Learn how to manage complications: simple and complex
- Comprehensive treatment planning of advanced cases-full arch with bone deficiencies
- Learn protocols, science and advantages of immediate implant placement with provisionalization (IIPP)
- Participate in a “hands on” procedure on models for IIPP
- Discuss immediate implant placement with type I and type II sockets
- Learn management of IIPP in infected sites
- Learn IIPP protocols in sinus augmentation

- Understand orthodontic considerations in implant dentistry for partial and fully edentulous arch
- Learn the management of surgical and prosthetic complications
- Learn preventive maintenance for an implant prosthesis

Implant Complications: Prevention and Management

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- Basic surgical
- Implant surgical
- Implant restorative
- Comprehensive treatment ease
- **Videos**

Case Presentations- Case based learning

Objectives: At the end of the module, the participants will:

- Be able to evaluate and navigate potential implant complications based on clinical and medical examination
- Manage basic surgical complications
- Manage implant surgical complications
- Manage implant restorative complications
- View videos to reinforce techniques for restorative and surgical complications
- Develop critical thinking skills to enhance treatment outcomes based on risk assessment