



HARD & SOFT TISSUE GRAFTING

COURSE 2

ITALIAN ACADEMY OF
OSSEOINTEGRATION

Hard and soft tissue grafting - ENG

By IAO Accademy



SUMMARY



Topic:

The essential guide of the principles of bone regeneration that every clinician must master and apply in daily practice



Objectives:

How to regenerate bone using resorbable membranes
The predictable management of minor and more severe bone defects
The rationale behind the choice between resorbable and non-resorbable membranes
The Khoury Technique with digitally-driven approach for alveolar bone regeneration
The decision-making algorithm specifically guided by the patient's defect
The biological principles underlying bone regeneration
Vertical bone regeneration in the aesthetic area
medicine



WHY TO ENROL:

1- You will gain a full understand of factors that influence the regenerative capacity of a defect

2- You will take part in stimulating debates among the most authoritative professionals in the field, enabling you to expand your knowledge about the best and most effective regenerative techniques

3- You will be able to observe numerous clinical cases to understand how to make your interventions less invasive, more respectful of biological principles and efficient

LEVELS

Difficulty Advanced

Theory ●●●●●

Practice ●●●●

KEY INFO



English



On Demand



Implantology&Bone Regenerati



8h



8 Lectures with Clinical Videos

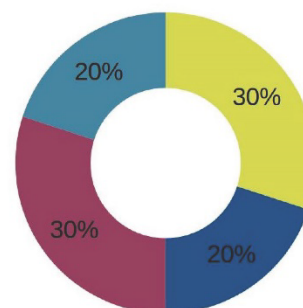


Clinical Yes



NO

SKILLS YOU WILL LEARN



■ Biological Principles

■ Surgical Protocols

■ Flap Design

■ Minimize Complications



Channel Description:

The Italian Academy of Osseointegration (IAO), the most important implantology society in Italy and recognized internationally, welcomes you to **“Hard and Soft Tissue Grafting”**, the **how-to-do-it learning experience** on the most innovative and efficient **bone regeneration** techniques.

This course has been **fully dubbed in English** and features lectures by **internationally renowned experts in implantology**.

Each video lecture focuses on a **specific aspect of bone regenerative surgery**, with the aim of providing participants with the tools to **immediately make their surgical practice less invasive and more effective**, faster, and predictable.

Due to the great variety of regenerative techniques, there are **real debates** between the speakers, thanks to which participants will be able to **explore the pros and cons of different approaches**.

The course, rich in **clinical cases** and **ReLIVE Surgery** commented step by step mode, provides a **complete learning experience** covering everything, from **horizontal augmentations** in minor but very frequent bone defects to the management of **challenging defects** requiring the adoption of more complex techniques such as the **Khoury Technique**, from **vertical regenerations** in the aesthetic area to the latest **flap design** and peri-implant **soft tissue management** protocols.

Finally, the speakers compare **analogue and digital approaches** to bone regeneration, highlighting similarities and differences and discussing the advantages and criticalities of each approach.

This **extensive** and **practice-oriented training** will enable you to expand your knowledge of regenerative practices thanks to the **inspiring presentations** and the innovative way of **comparing different philosophies**.

In particular, this course focuses on:

- How to **regenerate bone** using **resorbable membranes**
- The predictable management of **minor** and **more severe** bone defects
- The rationale behind the choice between **resorbable** and **non-resorbable** membranes
- The **Khoury Technique** with **digitally driven** approach for alveolar bone regeneration
- The **decision-making algorithm** specifically guided by the patient's defect
- The **biological principles** underlying bone regeneration
- **Vertical bone regeneration** in the aesthetic area
- The difference between graft types: **membranes** VS **autologous bone**
- **Flap design** for regenerative techniques

At the end of the course, you'll be able to:

- Fully understand which **factors** influence the **regenerative capacity** of a defect
- Choose between **GBR** with **non-absorbable membranes** or the **Khoury Technique**
- Achieve correct **flap passivation** to achieve **closure by first intention**
- **Manage soft tissue** during bone regeneration
- Know the **referrals** to be predictable and replicable
- Minimize the risk of **intra and post-operative complications**
- Adopt both **analogue** and **digital techniques** knowing the advantages and limitations of both

Who is the course for?

Attendance at this course is recommended for **all professionals** involved in **implantology** and **bone regeneration** as the authority and experience of the speakers guarantees a valid, **complete** and **timely update** on the best and **latest techniques** for everyone

Ok, but how does it work?

This **8 hour** course is divided into **8 video lectures** that you can find by accessing your personal osteocom area from any device and downloading from the osteocom mobile app, available on iOS and Android.



Video Lecture 1 - Horizontal augmentations using resorbable membranes (38min) By Dott. Filippo Fontana

Description:

In this first video lecture, **Dr. Filippo Fontana** provides an in-depth discussion on how to **regenerate bone** using **resorbable membranes**.

The lesson, presented in a full **"how to do it"** mode, focuses on **managing minor defects** with a **high occurrence rate** in the daily practice of every professional.

Participants will learn how, contrary to traditional belief, resorbable membranes, when accompanied by **fixation systems**, can also be used to manage **poorly supportive defects**, as they are less prone to complications compared to non-resorbable membranes.

The lesson ends with a **step-by-step discussion** of **two clinical cases**, one in the mandible and one in the maxilla, with the aim of showing participants the **correct surgical protocols** and the ease with which optimal outcomes were achieved using resorbable membranes.

In particular, this lesson covers the following topics:

- What is the **scope** of use for **resorbable membranes**?
- **Types of defects**: supportive, non-supportive, and poorly supportive
- Proper **fixation systems** for resorbable membranes
- **Managing the resorbable membrane**: cutting, modifying, shaping, fixation, and suture protocols
- How to **stabilize the membrane** to unlock great regenerative potential
- **Suture techniques**: internal horizontal mattress and single suture lines
- 6-month **follow-up** after surgery

Video Lecture 2 - Khoury Technique: how to regenerate alveolar bone? (1h 36min) by Dott. Luca De Stavola

Description:

In this lesson, **Dr. Luca De Stavola** discusses the operative protocol of the **Khoury Technique** for **bone regeneration** using **100% autologous bone** as graft material.

Participants will understand how regeneration is linked to a **biological process** that must form the foundation of every clinician's decision-making algorithm.

To this end, the first part of this lesson is dedicated to analyzing the **biological rules** for transitioning from a **clot** to a **provisional matrix**, **woven bone**, and finally, **lamellar bone**, with particular emphasis on the importance of vascular support, mechanical stability, and the presence of inductive factors.

The second part of the video lecture includes a **step-by-step commentary** of **each phase of the Khoury Technique's** operative protocol with a digitally driven approach, particularly focusing on the block luxation, incision, and flap release phases.

In particular, this lesson covers the following topics:

- The decision-making algorithm guided by the **patient's defect**
- What factors most influence the **regenerative potential**?
- The **macro-architecture** of the **defect**: particulate bone vs. compact bone
- **Digital planning**: Khoury Technique
- Block exposure and nerve trapped inside the luxated bone block: **complication management**

Video Lecture 3 - Vertical bone regeneration in the aesthetic zone: which technique to adopt - Part I (40min) by Dott. Marco Ronda
Description:

The **next two lessons** represent the first opportunity for **debate** and comparison between **two different philosophies** on the important topic of **vertical bone regeneration** in the esthetic zone. In this first video lesson, **Dr. Marco Ronda** discusses how he adopts the **GBR technique with non-resorbable membranes** as the gold standard, while in the subsequent presentation, **Dr. Luca De Stavola** explains why his primary technique of choice is the **Khoury Technique**.

Dr. Ronda demonstrates the management of a **prosthetic restoration in the anterior zone** that has become mobile and is no longer supported by the dental elements, due to a very **severe vertical bone defect** between teeth 21 and 14.

Participants will appreciate the entire treatment process, from the clearance to the **GBR, performed in two stages**, to the removal of the **non-resorbable membrane**, implant placement, and connective tissue grafting, to implant activation following bone maturation, and finally to prosthetics and delivery of the final restoration.

Dr. Ronda also highlights the importance of **flap passivation** for achieving **primary intention closure**.

In particular, this lesson covers the following topics:

- **Battle of concepts:** GBR with non-resorbable membranes vs. Khoury Technique
- Management of a **large vertical bone defect**
- **Timing** of the surgical process
- Step-by-step commentary on **each phase of the surgery**

Video Lecture 4 - Vertical bone regeneration in the aesthetic zone: which technique to adopt? - Part II (1h 20min) by Dott. Luca De Stavola

Description:

In this lesson, **Dr. Luca De Stavola** demonstrates how, unlike Dr. Ronda in the previous lesson, he uses the **Khoury Technique** as the **gold standard** for **vertical bone regeneration** of defects in the **esthetic zone**. At the end of the presentation, there is ample time for a **debate** between the two presenters.

Participants will understand that the greatest strength of the Khoury Technique is the use of **only autologous bone**, which is more effective in supporting the **regenerative potential** of the defect.

Dr. Luca De Stavola discusses the **advantages** of adopting a **digitally-driven protocol** for performing the Khoury Technique, such as the simplicity and increased safety in **harvesting autologous bone**.

In particular, this lesson covers the following topics:

- How does the **nature of the defect** influence implant osseointegration?
- The **biological rules** for transitioning from provisional matrix to woven bone and then to primary bone
- How does the Khoury Technique provide **greater vascular support** to the defect?
- **Battle of concepts:** differences in the type of graft used by the two presenters

Video Lecture 5 - Flap design for regenerative techniques (1h 5min) by Dott. Luca De Stavola

Description:

How should **soft tissues** be managed during **bone regeneration**?

In this lesson, **Dr. Luca De Stavola** discusses the surgical phase of **flap design**, a key step for achieving **primary intention closure**.

At the end of this video lecture, participants will learn the **landmarks** that allow for **predictable** and **replicable outcomes**, as well as how to **minimize the risk of intra and post-operative complications** such as flap dehiscence and bone defect exposure.

By showcasing **various clinical cases**, Dr. De Stavola emphasizes how **flap stability** is influenced more by tension than by the thickness of the flap itself and discusses the necessity of performing **tension-reducing sutures** to relieve pressure on horizontal mattress sutures.

In particular, this lesson covers the following topics:

- **Flap tension:** a key element in minimizing the risk of complications
- Calculating the optimal **flap design**
- **Flap incision protocol:** lower arch vs. upper arch
- **Lingual flap** extension vs **vestibular flap** extension
- The sequence of **flap closure** using **tension-reducing sutures**

COVER:

Video Lecture 6 - Management of peri-implant soft tissues (1h 19min)

by Dott. Andrea Chierico

Description:

In this lesson, **Dr. Andrea Chierico** focuses on the management of **soft tissues around teeth and implants** when faced with bone volume loss.

Three **different clinical scenarios** are presented: single tooth loss without attachment loss, single tooth loss with attachment loss, and the case of multiple adjacent missing teeth in the anterior sector.

Participants will observe how, in the **absence of attachment loss**, the need is to **preserve the situation** by minimizing the surgical approach, while in the presence of attachment loss there is a necessity to **regenerate hard tissues** for the correct three-dimensional placement of implants.

At the end of the lecture, there is time for a discussion on the **rationale** behind the decision to **perform immediate loading** or not when extracting elements in the esthetic zone.

In particular, this lesson covers the following topics:

- Definition of the **peri-implant phenotype**
- Application of correct protocols to achieve the right **thickness of soft and hard tissues**
- How to create a **perfect gingival outline** at the end of treatment
- Management of the **discrepancy** between the **bone crest** and **gingival contour**
- Proper **prosthetic management** of bone volume loss

Video Lecture 7 - Analogue VS Digital: hard tissue regeneration - Part I (47min) by Dott. Filippo Fontana

Description:

This learning experience concludes with another "**battle of concepts**" between **Dr. Filippo Fontana** and **Dr. Pietro Felice** regarding the differences between **analogue and digital approaches** to hard tissue regeneration.

In this first part, Dr. Fontana explains that the differences between these two approaches are **logistical** rather than conceptual, focusing on the **stages of preliminary planning, membrane preparation** and **fixation**, and **graft placement**.

Participants will observe, for example, how membrane preparation in the analogue approach occurs intra-operatively, while in the digital approach it is done **pre-operatively**.

In particular, this lesson covers the following topics:

- Differences between the **analogue and digital approach**
- **Membrane preparation** in the analogue vs. digital approach
- **Membrane fixation** in the analogue vs. digital approach
- **Graft placement** in the analogue vs. digital approach
- **Hybrid approach** combining analogue and digital methods

Video Lecture 8 - Analogue VS Digital: hard tissue regeneration - Part II (40min) by Dott. Pietro Felice

Description:

This second part of the "**battle of concepts**" between the analogue and digital approaches begins with a presentation on the **evolution of devices** available for the digital approach to **regenerative surgery**.

Dr. Felice demonstrates how the **digital approach** simplifies **membrane fixation** procedures, particularly on the lingual side in patients with **severe atrophy**.

Finally, the characteristics of **customized titanium mesh**, occlusive or semi-occlusive custom grids, is shown to highlight the advantage of not needing to modify the **membrane intra-operatively**.

In particular, this lesson covers the following topics:

- The **biological principles** of the membrane: biocompatibility, stability, ability to integrate with surrounding tissues, and ease of use
- The **evolution of devices** for the digital approach to regenerative surgery
- **Battle of concepts**: advantages and disadvantages of the analog and digital approaches



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course



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