

A portrait of a middle-aged man with dark, curly hair and a slight smile, wearing a dark blue polo shirt. He has his arms crossed. The background is a blurred image of a dental procedure with blue lighting. The polo shirt has two logos: on the left chest, 'Pro Cardaropoli' in white script; on the right chest, a logo with a dotted arch shape above the text 'PROED Professional Education' in white.

ALVEOLAR RIDGE PRESERVATION

DANIELE CARDAROPOLI

Alveolar Ridge Preservation

Alveolar Ridge and Socket Preservation Techniques for Implant Therapy

Daniele Cardaropoli and osteocom welcome you to "Alveolar Ridge Preservation", the complete online course on predictable post-extraction alveolar ridge healing techniques.

"Alveolar ridge preservation" offers a systematic perspective on the different clinical scenarios that the implantologist is faced with after tooth extraction.

Based on the new classification of post-extraction sites, published by the author in 2021 in the International Journal of Periodontics and Restorative Dentistry - with the aim of correlating a precise clinical scenario with the correct treatment strategy - the educational path deepens the management techniques which are based on the biological rationale of spontaneous healing of the socket and guarantee predictability.

The participant will deepen:

- the **alveolar socket healing process** and its biologic principles
- **dental extraction techniques - open flap VS flapless** - and their implications in the healing process
- differences in bone resorption related to the **elevation of the flap - half thickness VS full thickness**
- safe and predictable implementation of the **Open Healing Technique**, with intentional exposure of the collagen membrane / matrix
- what techniques to implement in case of non-intact socket and bone resorption - **ridge preservation VS ridge augmentation** - and the management of cases characterized by root fractures

- what timing and differences must be observed in the **preparation of the implant tunnels** in post-extraction sites treated with ridge preservation
- when to expect sockets treated with ridge preservation techniques to require **additional bone augmentation procedures** during implant placement and how to approach these cases
- which **bone substitute** shows the best data in terms of volumetric preservation
- how to protect the graft - **resorbable membrane VS socket seal with autologous punch VS three-dimensional collagen matrix**
- the use of **fibrin glue** as an adjuvant for bone grafting.

At the end of the course the participant will be able to:

- **Understand the biological principles** that regulate the healing dynamics of the post-extraction socket
- **Intercept the loss of bone volume** due to the extraction of dental elements by offering the patient an alternative treatment plan
- **Identify and select the cases** to approach with Ridge Preservation
- **Select and use the correct biomaterials** to maintain the volume of the bone crest
- **Decide the timing of implant insertion** following tooth extraction and socket preservation.

To facilitate the immediate implementation of the techniques described, the Author decided to provide **9 detailed surgical videos** with step-by-step commentary.

Great attention is paid to the **systematic presentation of the data** provided by the literature and the description of **the effects of their practical confirmation in Daniele Cardaropoli's daily practice**, who straightforwardly indicates how to effectively replicate the surgical approaches illustrated.

Tailored for

This on-demand video course is dedicated to all **those professionals who practice implantology at all levels of experience.**

The didactic structure provides for an agile but thorough review of the literature and the implementation of the principles described therein in daily clinical practice, with practical insights, surgical details and precise indications on materials and their management.

How does it work?

The course includes **4 hours of theoretical/practical videos** and **over 2 hours of additional clinical videos.**

Each video lesson is structured according to a modular logic, so as to allow learners to follow the didactic path at the pace they prefer. Participants are able to watch and re-watch the videos whenever and as many times as they want; the osteocom APP allows the videos to be accessed offline as well.

Part of the proceeds from this channel are destined for the "Giuseppe Cardaropoli Foundation for Treatment and Research in Periodontology".

The "Giuseppe Cardaropoli Foundation for Treatment and Research in Periodontology", in honoring the memory of Dr. Giuseppe Cardaropoli, aims to spread knowledge in the medical-dental field regarding periodontal disease, supporting clinical research projects and scholarships, and promoting prevention and screening programs for the population.

For more information: <http://cardaropoli.org/>

List of content

Lecture #1

Wound healing dynamics of the post-extraction socket

The first lesson of the channel opens with an overall review of the literature dedicated to the dynamics of spontaneous healing of the post-extraction sockets, moving then towards a day-by-day histological and histomorphometric analysis.

The second part of the lecture moves focuses on the description of the extra-alveolar healing process, with insights into the degree of resorption that the ridge undergoes after the avulsion of an element.

Lecture #2

Alveolar ridge preservation. Biological rationale and clinical applications

In this second lesson, Dr. Daniele Cardaropoli describes the biological rationale at the basis of the alveolar ridge preservation therapy concept. The description starts from a differential definition of alveolar preservation and alveolar augmentation (a topic that will be addressed specifically in the fourth lesson of this training channel) and moves towards a description of the clinical practices of volumetric maintenance of the alveolar ridge in compliance with the healing biology of the alveolar socket and its surrounding structures.

The author offers a review of the literature and a perspective on his direct experience, offering an answer to questions such as:

- Is the ridge preservation technique effective regardless of the initial cortical bone thickness?
- What differences must be observed in the preparation of the implant tunnels in post-extraction sites treated with ridge preservation?
- To what extent does the ridge preservation technique involve the need for additional bone augmentation procedures during implant placement?

Lecture #3

Biomaterials choice and the "Open-healing" concept

This third lesson allows the author to approach a clinical description of the alveolar preservation technique with intentionally exposed membrane, as well as the choice of the correct materials for ridge preservation.

The didactic approach is thoroughly step-by-step and observes:

- implications of the extraction technique - open flap VS flapless
- differences in bone resorption related to the elevation of a flap - half thickness VS full thickness
- which bone substitute shows the best data in terms of volumetric maintenance
- how to protect the graft - VS socket seal resorbable membrane with autologous punch VS collagen matrix.

Lecture #4

Alveolar ridge augmentation procedures concomitant with dental extraction

In lesson number 4, Dr. Daniele Cardaropoli describes the bone augmentation techniques that are necessary in the rehabilitation of non-intact post-extraction sites.

The discussion includes:

- the Ice cream cone technique with preformed membrane to manage the lack of the vestibular wall
- the use of fibrin glue as an adjuvant for bone grafting
- the management of cases characterized by root fractures.

The lesson ends with the description of the new classification of post-extraction sites, published by the author in 2021 in the International Journal of Periodontics and

Restorative Dentistry, which aims to correlate a precise clinical scenario with the correct treatment strategy.

Clinical video #1

Open healing ridge preservation technique on element 14

The video shows an alveolar preservation surgery on the right upper premolar. The avulsion is dictated by endodontic and prosthetic reasons, and it is possible to appreciate the various phases that characterize the ridge preservation procedure with the Open Healing technique and the use of a three-dimensional matrix.

Clinical video #2

Ice Cream Cone Technique on element 22

The video shows a ridge augmentation treatment following conservative-endodontic failure and vestibular bone resorption in the esthetic zone. The compromised site treatment involves a bone augmentation procedure with a preformed resorbable membrane to reconstruct the vestibular bone wall.

Clinical video #3

Ridge augmentation of the upper left quadrant

The video shows an alveolar ridge augmentation surgery after major prosthetic and endodontic failure and onset of peri-implant disease.

Clinical video #4

Open healing ridge preservation on element 15

The video shows a ridge preservation technique on an upper premolar. Thanks to the thorough description provided, it is possible to deepen every fundamental step of the Open Healing technique.

Clinical video #5

Ridge augmentation on element 21

The video shows a bone augmentation procedure on the lateral incisor.

The buccal wall is partially compromised, entailing the need to perform a bone augmentation procedure with a pre-formed resorbable membrane.

Clinical video #6

Ridge preservation technique on elements 16 and 17

The video shows the extraction of the elements 16 and 17 with coronectomy and root separation. The considerable volume of the alveolar crest is maintained thanks to the application of a ridge preservation technique, described here with a step-by-step approach.

Clinical video #7

Ridge preservation on element 12 with intentionally exposed 3D matrix

The video illustrates a ridge preservation intervention in the aesthetic zone. The technique of choice follows the Open Healing concept with a three-dimensional matrix to protect a collagenated deproteinized bovine graft.

Clinical video #8

Open healing ridge preservation technique on element 25

The video shows a ridge preservation surgery in the upper left premolar area. The technique of choice follows the open healing concept with intentional exposure of the membrane.

Clinical video #9

Open healing ridge preservation technique on element 14

The video shows the application of the open healing ridge preservation technique on the right upper premolar.

Clinical video #10

Title: Ridge augmentation on element 23

The video illustrates a post-extraction bone augmentation procedure aimed at resolving the resorption on the palatal bone wall of the left upper canine.



Dr. Prof. Daniele Cardaropoli

Specialized in Periodontology at the University of Turin, Adjunct Professor in Periodontology at the Master's Degree Course in Dentistry and Dental Prosthetics of the University of Catania. Active member of the SIdP, the EFP, the IAO and the AO. ITI Fellow. International member of the AAP. Effective member of Amici di Brugg. Scientific Director of PROED (Institute for Professional Education in Dentistry, Turin). President of the Giuseppe Cardaropoli Foundation for Research and Treatment in Periodontology. He received the "Harvard Longitudinal Course in Periodontology and Implantology" from the Harvard Dental School in Boston and the "Excellence in Biomechanics" diploma from the University of Siena. Winner of the Goldman Prize for clinical research at the XI National SIdP Congress and the National Prize in Clinical Orthodontics at the XVII SIDO International Congress. Member of the Editorial Board for The International Journal of Periodontics and Restorative Dentistry and The International Journal of Oral Implantology, Reviewer for the Journal of Clinical Periodontology, Journal of Periodontology and American Journal of Orthodontics & Dentofacial Orthopedics.

Speaker at National and International Congresses, he has given talks in Italy, Europe, the Americas, Asia and Australia. He is the author of numerous international publications in peer-reviewed journals on periodontology, implantology and tissue regeneration. He is the author of the chapter "Seeking the Optimal Aesthetic Result in the Maxillary Anterior" in the book "Implant Therapy: Clinical Approaches and Evidence of Success" by Nevins M. & Wang H.L. (Quintessence Publishing, 2019). He is the author of the text "Soft tissues and pink aesthetics in implant therapy" (Quintessence Publishing, 2018) and the text "Plastic and regenerative periodontal surgery" (Edra Edizioni, 2021). Private practice in Turin.

