

## Peri-Implant Bone Augmentation With the SPAL Technique and a Bovine-Derived Bone Block



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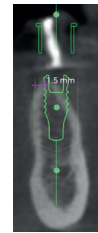
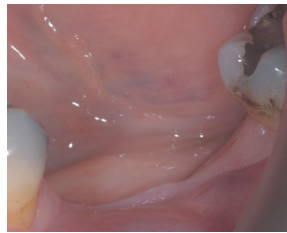


### The Baseline Situation

Patient with an edentulous area in the left posterior mandible and a forecasted buccal dehiscence

A healthy 50-year-old female patient with an **edentulous area in the left posterior mandible** presented herself for implant-supported rehabilitation. She was enrolled in a periodontal care program after treatment for stage II periodontitis.

Digital planning of two implants forecasted the formation of a buccal dehiscence, suggesting the need for a horizontal bone augmentation procedure.

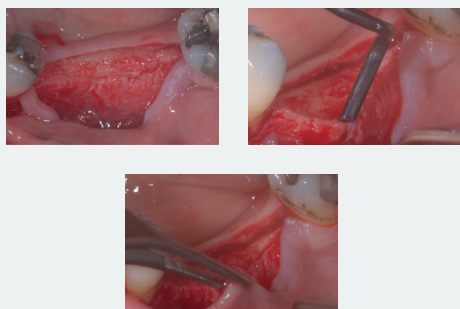


### The Treatment Strategy



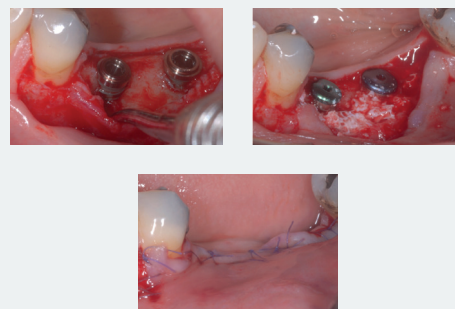
#### 1. Subperiosteal peri-implant augmented layer (SPAL) technique

Raising of a split-thickness flap at the buccal aspect, leaving the periosteal layer on the edentulous ridge intact  
Elevation of the periosteal layer  
Elevation of a full-thickness flap at the lingual aspect



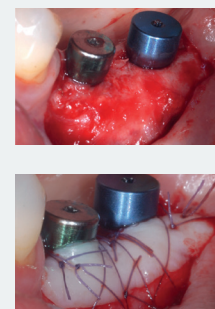
#### 2. Guided implantation and bone grafting

Placement of 2 SPI®ELEMENT RC implants with the help of a CAD surgical guide  
Adaptation of a trimmed deproteinized bovine-derived bone block underneath the periosteal layer  
Stabilization of the periosteal layer to the lingual flap with internal mattress sutures



#### 3. Epithelial and connective tissue grafting

Augmentation of the peri-implant soft tissue 6 months post surgery



#### 4. Final restoration

Digital impression taking 4 weeks after tissue grafting  
Final screwed zirconia restoration (splinted crowns) 4 weeks later



### The Outcome

The combination of the SPAL technique with a deproteinized bovine-derived bone block resulted in adequate peri-implant tissue conditions and an increase in buccal tissue thickness at the most coronal portion of the exposed implants

