

# Vertical ridge augmentation of the anterior maxilla using creos™ syntoprotect mesh

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## Dr. Istvan Urban

### Patient

34-year-old female patient, healthy.

### Clinical situation

Several failed bone graft surgeries in the history. Severe asymmetry and lack of lip support because of the underlying bone defect. Very unhappy with her facial appearance.

### Surgical solution

Vertical ridge augmentation of the anterior maxilla; implant placement

### Restorative solution

Implant bridge

### Products used

creos™ syntoprotect mesh, Nobel Biocare N1™ implant system

### Surgery date

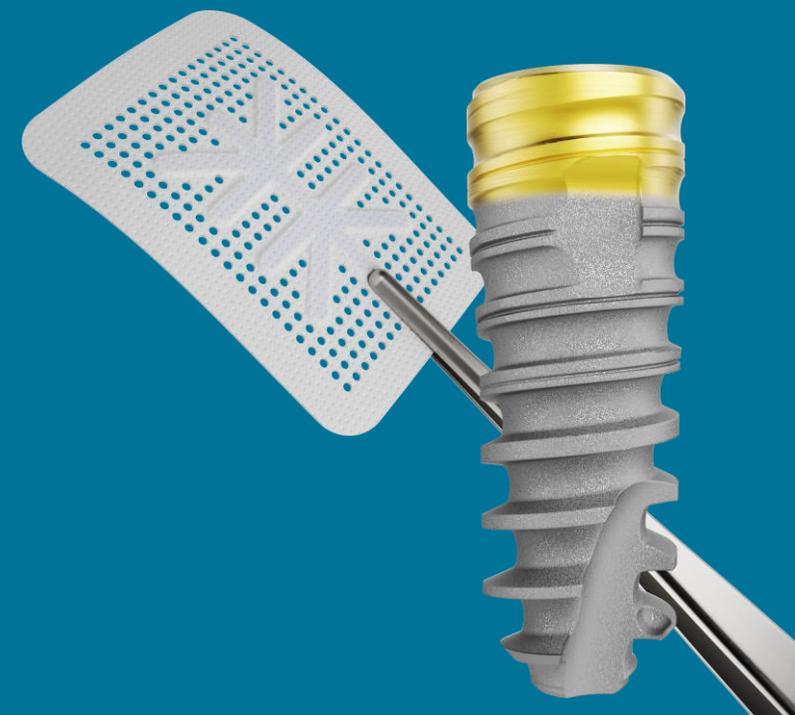
2020

### Total treatment time

17 months in 2020

### Tooth positions

#22, #24



**Initial clinical situation**

**Treatment planning**

**Surgical procedure**

**Restorative procedure**

**Outcome**

**Vertical ridge augmentation of the anterior maxilla utilizing reinforced PTFE mesh (creos™ syntoprotect mesh)**



**Labial view of the face demonstrates severe asymmetry and lack of lip support because of the underlying bone defect.**



**Labial view of severe vertical defect of the anterior maxilla involving three teeth.**

**Initial clinical situation**

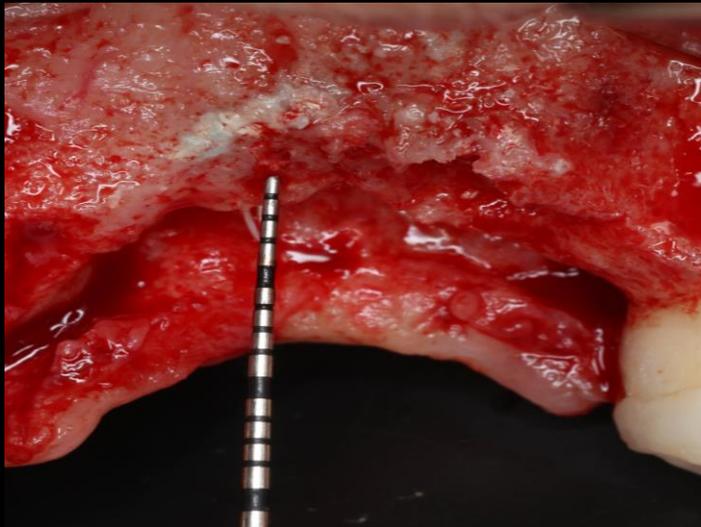
**Treatment planning**

**Surgical procedure**

**Restorative procedure**

**Outcome**

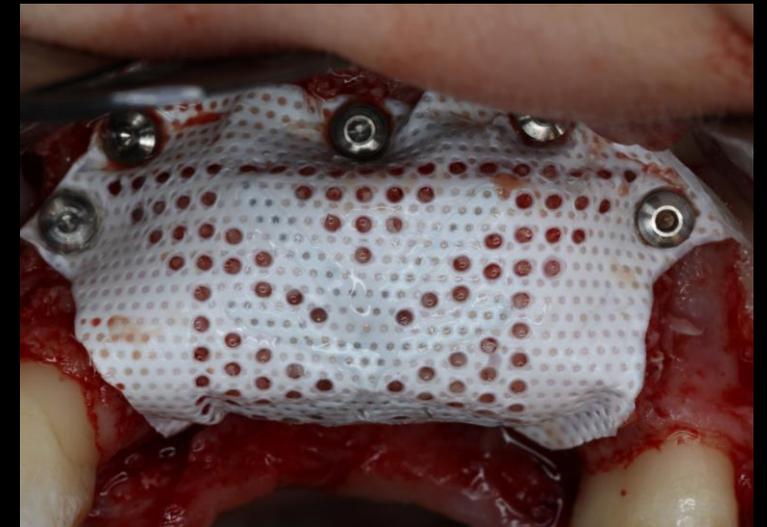
**Vertical ridge augmentation of the anterior maxilla utilizing reinforced PTFE mesh (creos™ syntoprotect mesh)**



**Labial view of the defect after flap elevation.**



**Labial view of a particulate bone graft composing of a 1:1 ratio of autogenous bone and a xenogenic bone graft. creos syntoprotect mesh was fixated before the graft was applied.**



**Labial view of the membrane after complete fixation. Several titanium pins were utilized for the fixation.**

**Initial clinical situation**

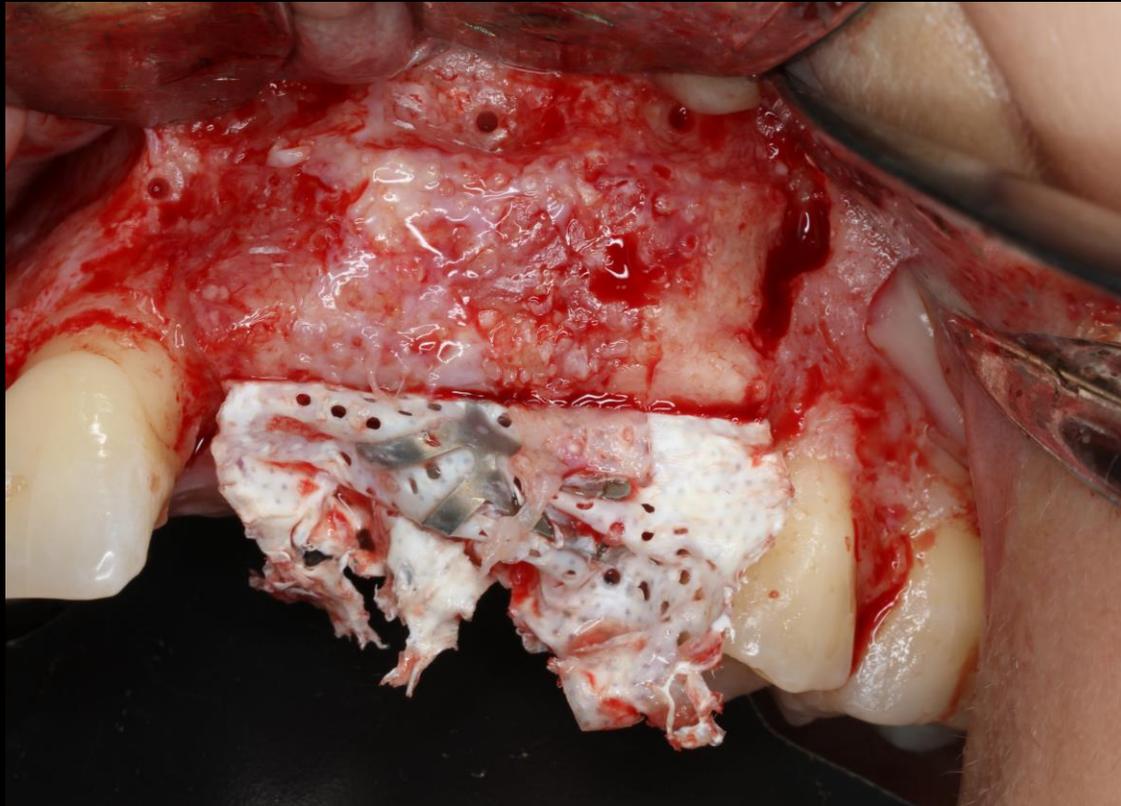
**Treatment planning**

**Surgical procedure**

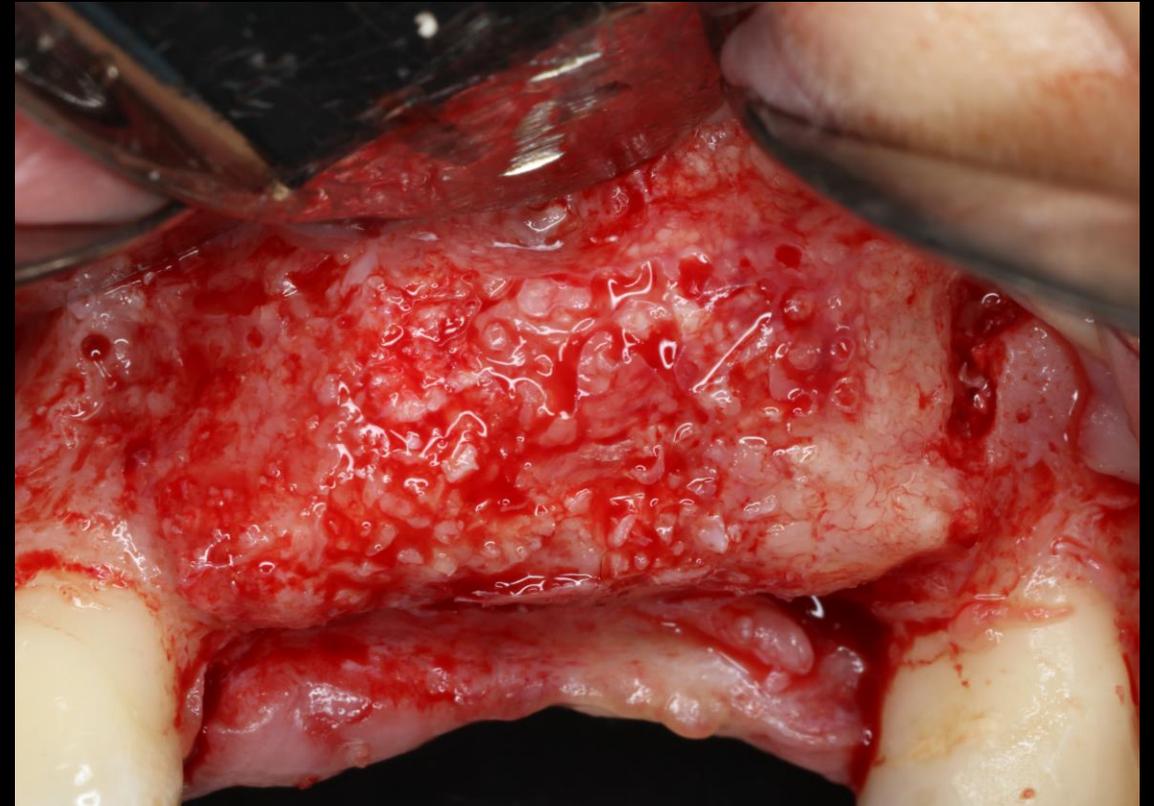
**Restorative procedure**

**Outcome**

**Vertical ridge augmentation of the anterior maxilla utilizing reinforced PTFE mesh (creos™ syntoprotect mesh)**



**Labial view at membrane removal after 8 months of uneventful healing.**



**Labial view of the regenerated bone demonstrating a complete vertical and horizontal bone gain.**

Initial clinical situation

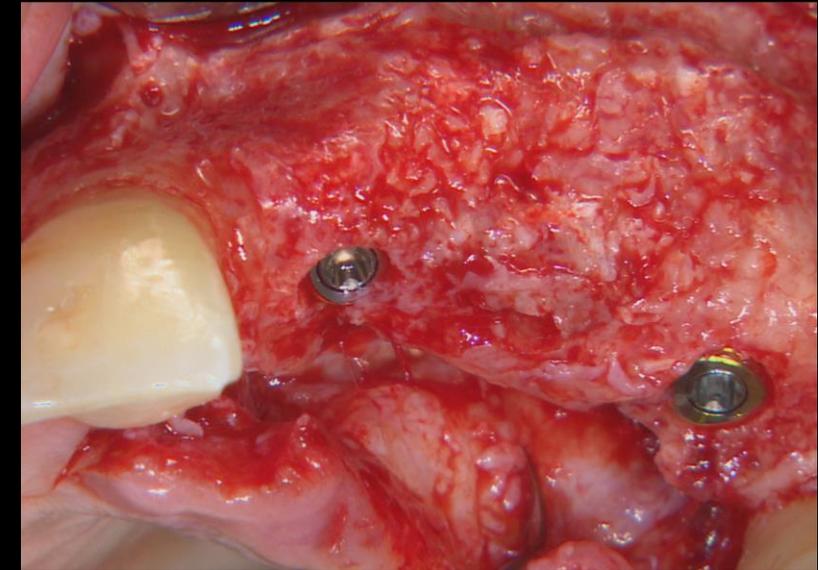
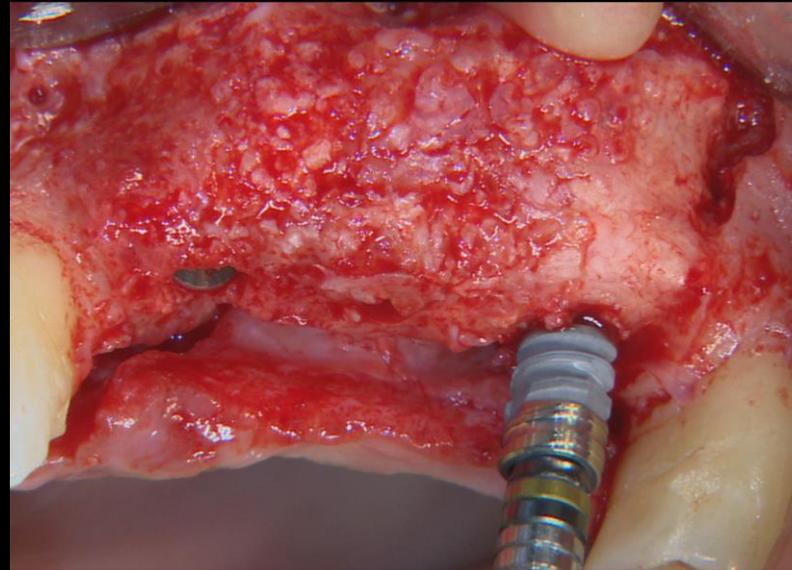
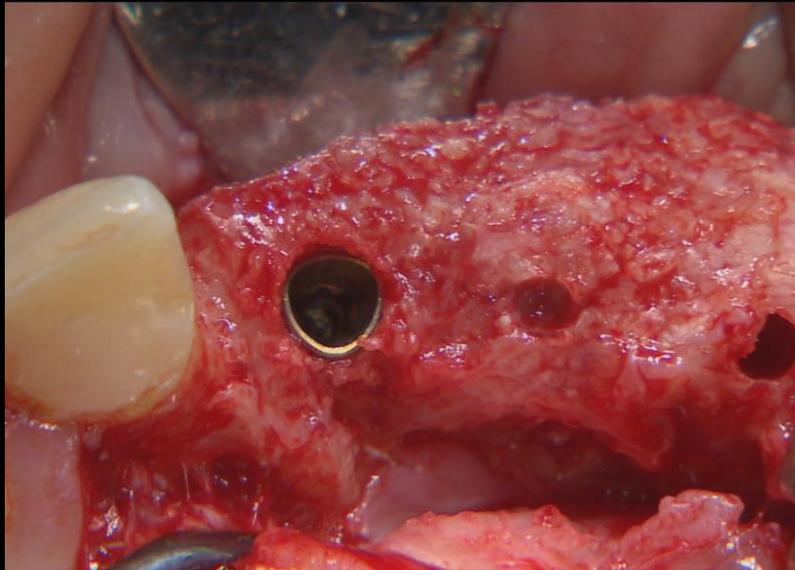
Treatment planning

Surgical procedure

Restorative procedure

Outcome

**Vertical ridge augmentation of the anterior maxilla utilizing reinforced PTFE mesh (creos™ syntoprotect mesh)**



Labial and occlusal views of defect during implant placement. Two Nobel Biocare N1™ implants were placed.

Initial clinical situation

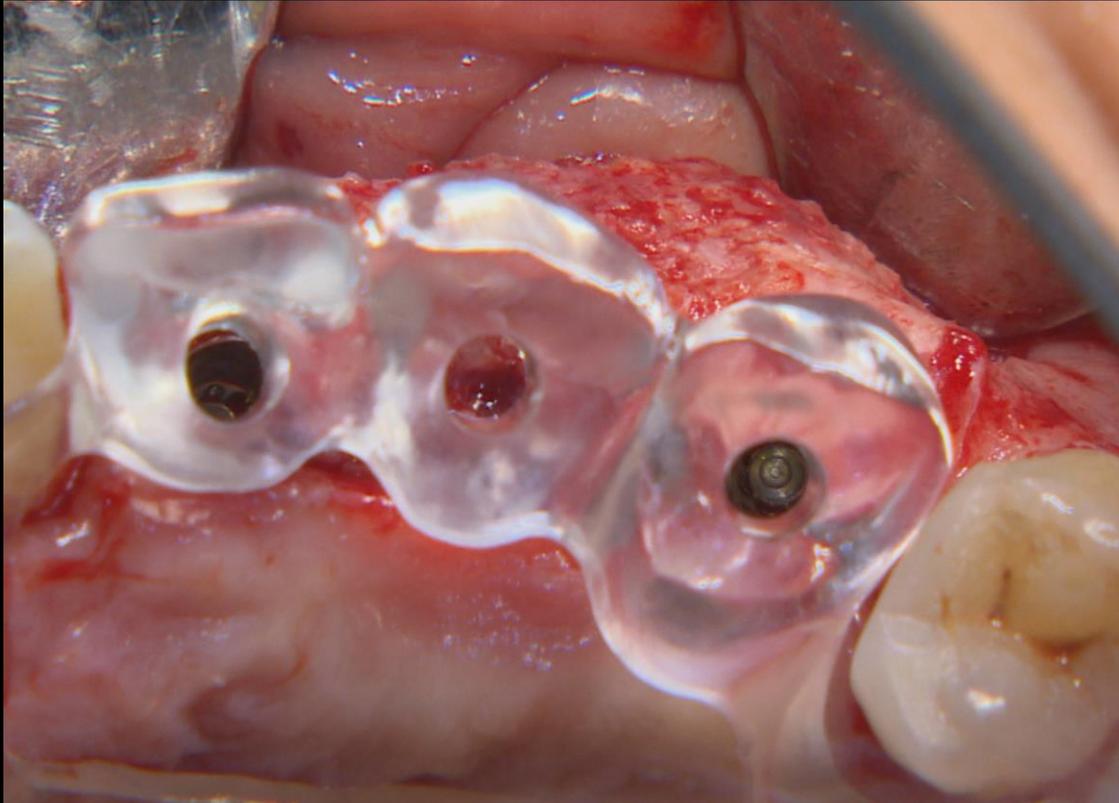
Treatment planning

Surgical procedure

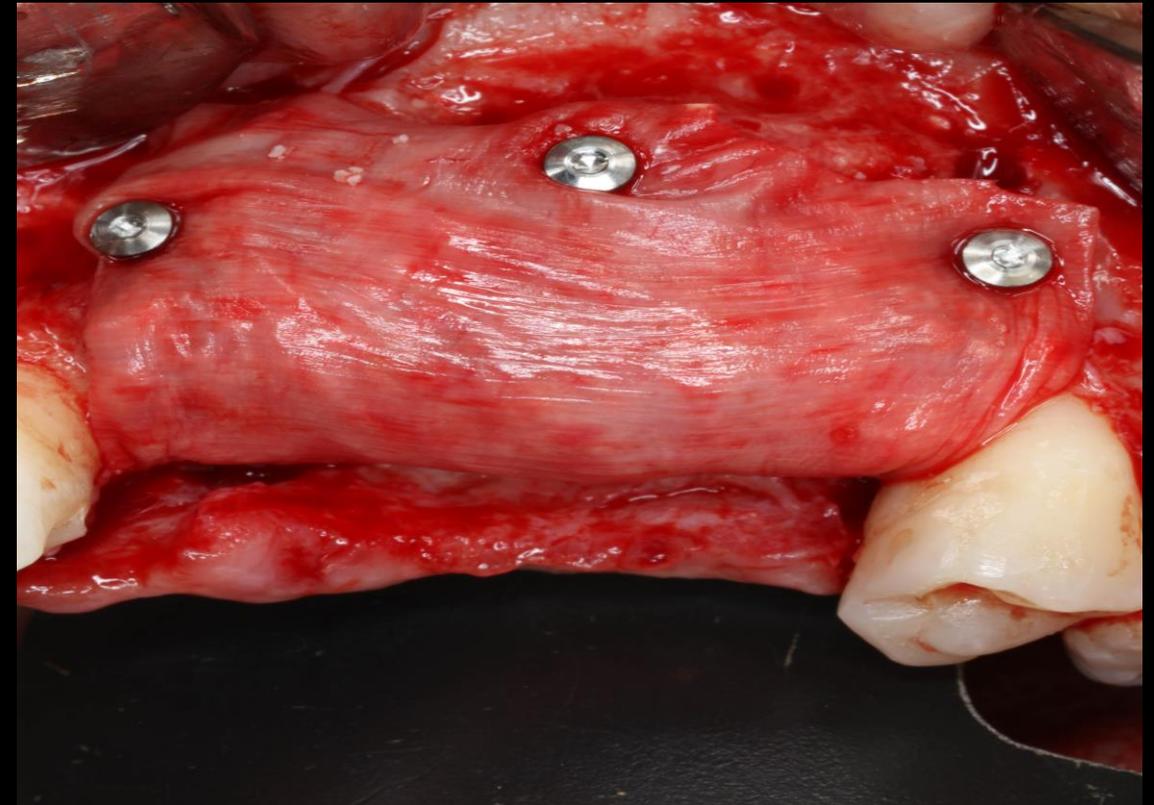
Restorative procedure

Outcome

**Vertical ridge augmentation of the anterior maxilla utilizing reinforced PTFE mesh (creos™ syntoprotect mesh)**



Occlusal view of a surgical guide in place demonstrating good prosthetic positions of the implants.



Labial view of a protection layer of bone graft called a "mini sausage." 20% autograft and 80% xenograft were utilized for this graft. The collagen membrane was fixated with titanium pins. The goal of the graft was to protect the newly formed bone from any resorption.

Initial clinical situation

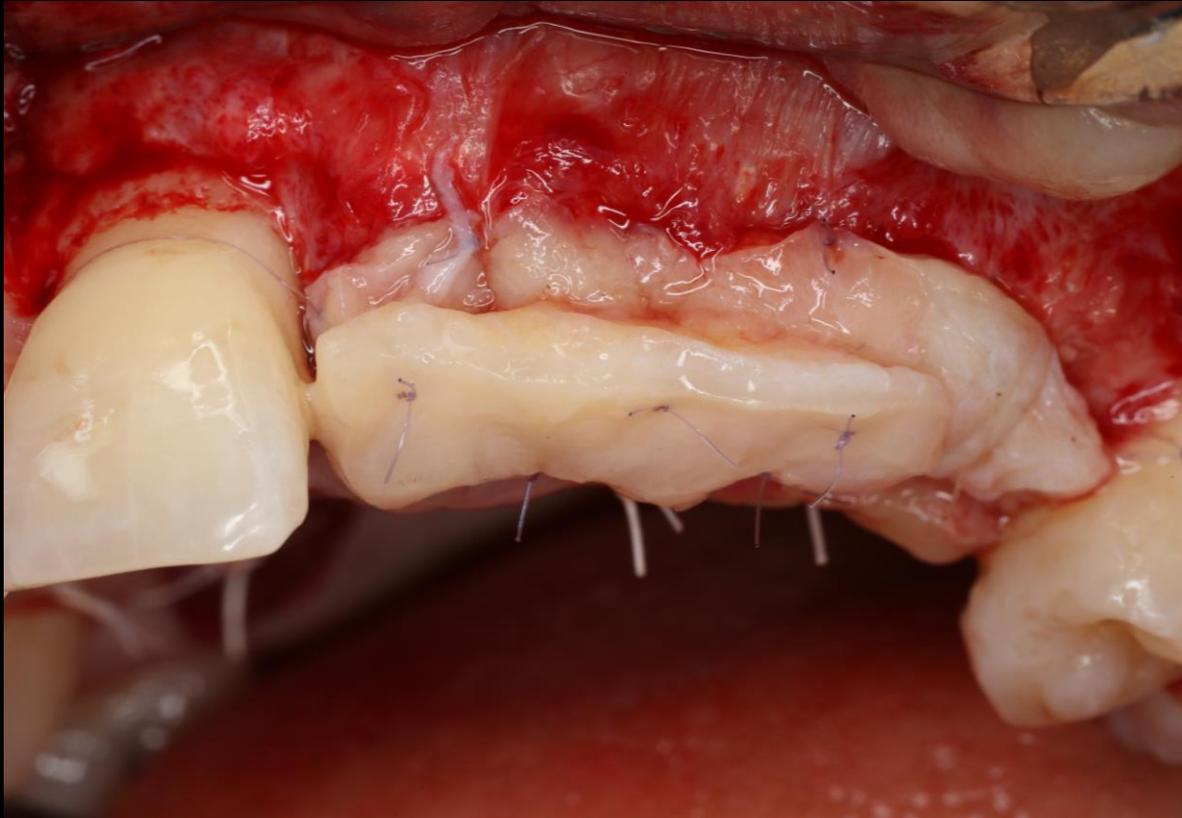
Treatment planning

Surgical procedure

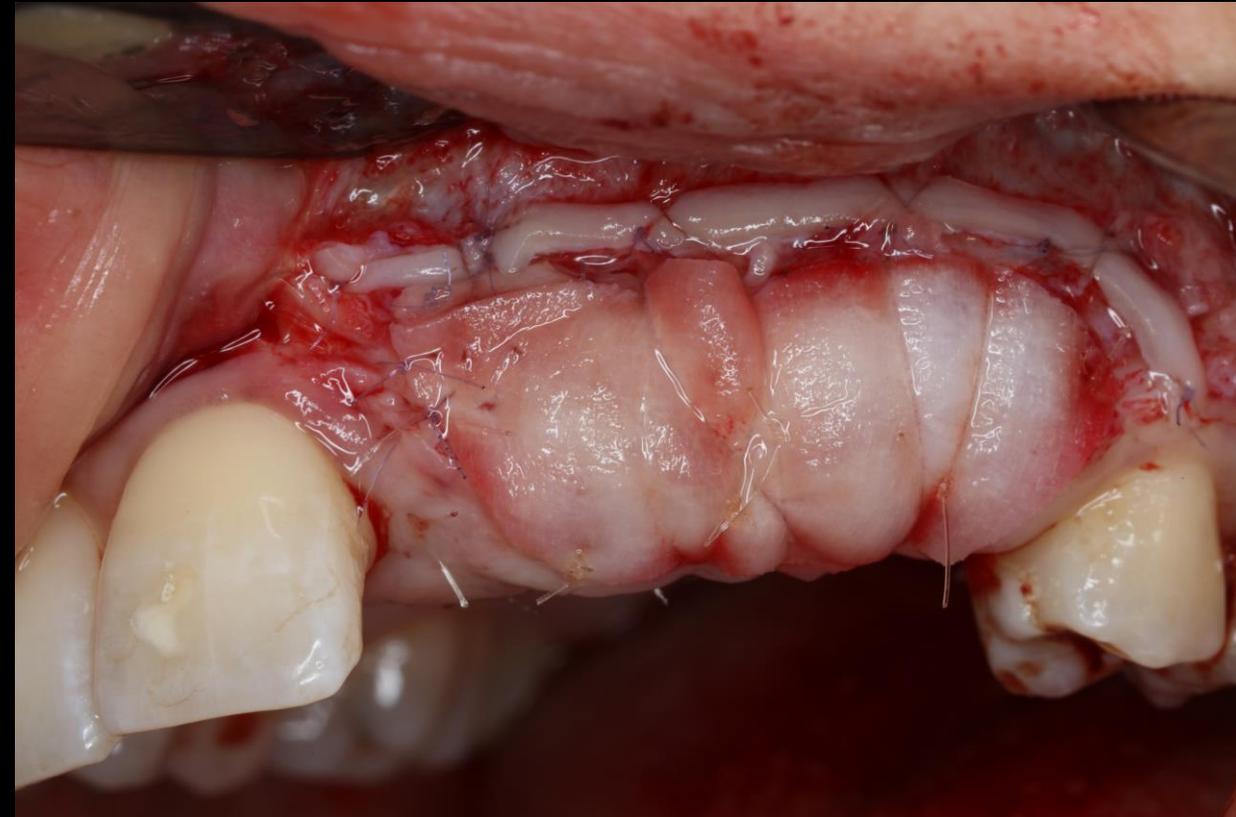
Restorative procedure

Outcome

**Vertical ridge augmentation of the anterior maxilla utilizing reinforced PTFE mesh (creos™ syntoprotect mesh)**



A double layer, Iceberg connective tissue graft was placed over the implants to increase tissue thickness.



A strip gingival graft harvested from the labial gingiva was utilized in combination with the collagen matrix to reconstruct the vestibule and keratinized tissue.

**Initial clinical situation**

**Treatment planning**

**Surgical procedure**

**Restorative procedure**

**Outcome**

**Vertical ridge augmentation of the anterior maxilla utilizing reinforced PTFE mesh (creos™ syntoprotect mesh)**



**Labial view of the reconstructed soft tissue demonstrating a natural color.**

**Initial clinical  
situation**

**Treatment  
planning**

**Surgical  
procedure**

**Restorative  
procedure**

**Outcome**

**Vertical ridge augmentation of the anterior maxilla utilizing reinforced PTFE mesh (creos™ syntoprotect mesh)**



**Labial view of the final restoration in place.**

**Initial clinical situation**

**Treatment planning**

**Surgical procedure**

**Restorative procedure**

**Outcome**

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**Before**



**Periapical radiographs demonstrate good bone stability after loading.**



**After: Facial view demonstrates beautiful lip support and symmetry after treatment.**

Case courtesy of Dr. Istvan Urban



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