

CLINICIAN

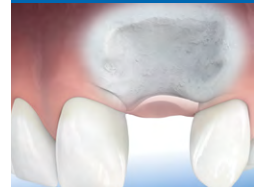


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SAUSAGE TECHNIQUE AND GAIN OF VESTIBULAR DEPTH

“Human bone grafts are subject to unwanted resorption. Therefore, I always combine Geistlich biomaterials with autogenous bone for larger augmentations.”

MAJOR BONE AUGMENTATION



SOFT-TISSUE REGENERATION

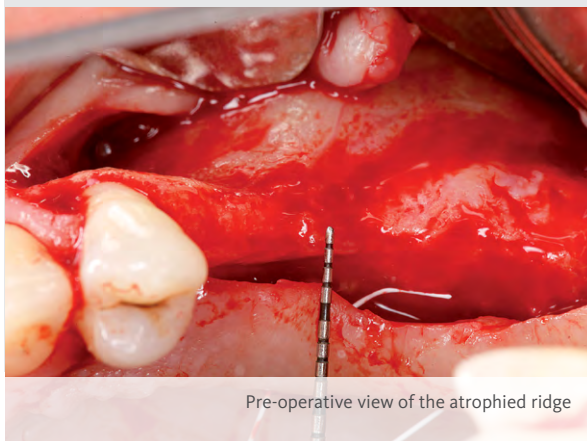


Utilizing the sausage technique combined with the keratinized strip technique is an innovative approach to horizontally augment the alveolar ridge and to compensate for the lack of vestibular depth and keratinized tissue after primary wound closure.

This procedure avoids harvesting of an autogenous bone block and the related morbidity of the donor site. The technique utilizes a 1:1 ratio of autogenous bone and Geistlich Bio-Oss® to augment the ridge, while Geistlich Bio-Gide® is used to stabilize the graft material. Geistlich Mucograft® is then utilized to increase the keratinized tissue and is left exposed during healing. The unique properties of Geistlich Mucograft® encourage blood clot stabilization, leading to early vascularization and the ingrowth of cells which result in complete soft-tissue integration within 6 weeks.

CLINICAL CHALLENGE / OBJECTIVE

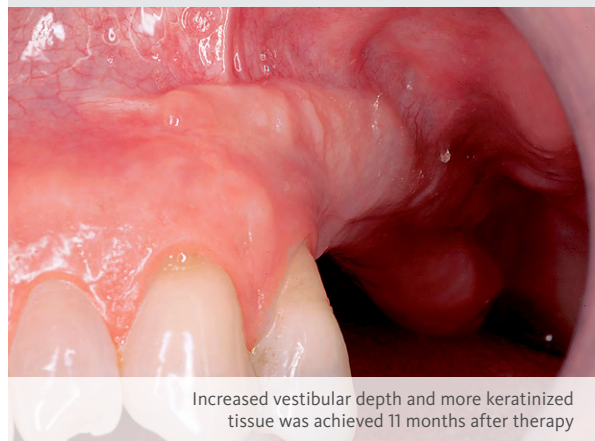
- Inadequate alveolar ridge width for implant placement
- Avoiding patient morbidity after harvesting larger quantities of autogenous bone
- Insufficient vestibular depth and keratinized tissue after wound closure



Pre-operative view of the atrophied ridge

CONCLUSION

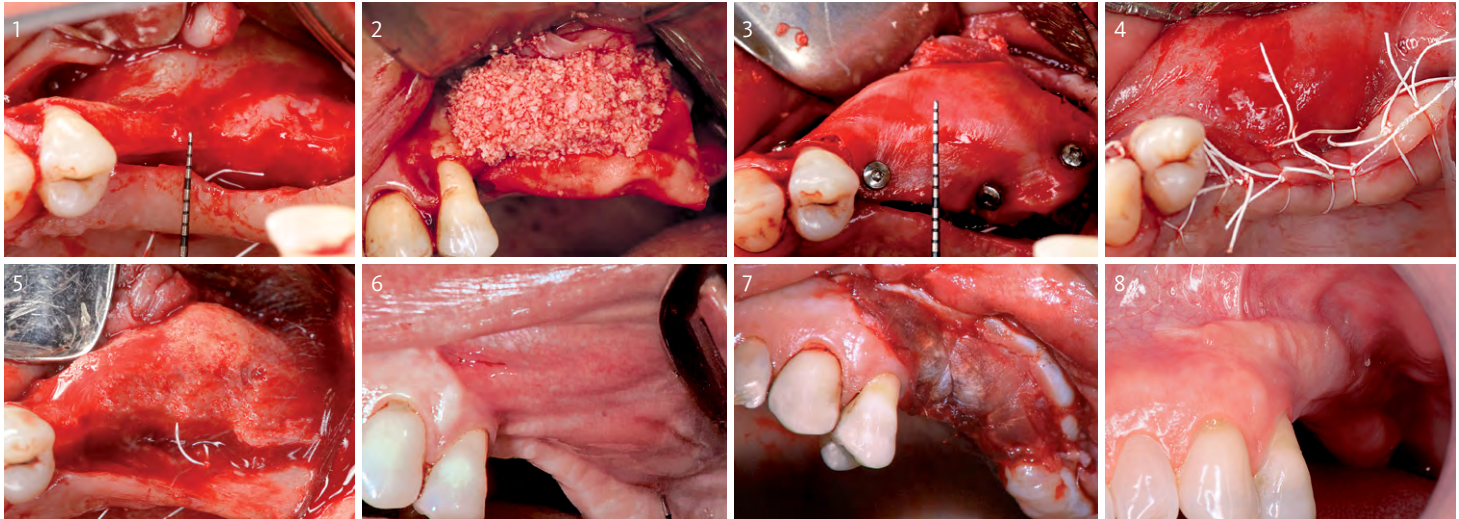
- Augmentation of severely atrophied alveolar ridge provided sufficient bone for implant placement 8 months following augmentation
- Geistlich Mucograft® with a keratinized tissue strip was utilized to increase vestibular depth and gain additional keratinized tissue



Increased vestibular depth and more keratinized tissue was achieved 11 months after therapy

CASE PRESENTATION

Defect	Region	Autogenous Bone	Additional Means
<input checked="" type="checkbox"/> Horizontal	<input type="checkbox"/> Anterior <input checked="" type="checkbox"/> Maxilla	<input checked="" type="checkbox"/> Particulate	<input checked="" type="checkbox"/> Titanium Pins
<input type="checkbox"/> Vertical	<input checked="" type="checkbox"/> Posterior <input type="checkbox"/> Mandible	<input type="checkbox"/> Block	



- 1 Pre-operative view of the atrophied ridge
- 2 Application of a mixture (1:1) of autogenous bone and Geistlich Bio-Oss®
- 3 Geistlich Bio-Gide® is tightly fixed and pinned, thus immobilizing the particulate graft. The sausage-like augmentation allows extended horizontal augmentation
- 4 Primary wound closure is obtained with a combination of mattress and single interrupted sutures

- 5 Sufficient amount of augmented bone for implant placement 8 months after augmentation. Implants are placed in a submerged procedure
- 6 Insufficient vestibular depth and keratinized tissue after alveolar ridge augmentation
- 7 Application of a keratinized strip towards the vestibulum and Geistlich Mucograft® over the augmented area where it is left exposed for healing
- 8 Situation before reopening for abutment connection after 3 months showing increased vestibular depth and more keratinized tissue

Click Below to View Surgical Videos:

• SAUSAGE TECHNIQUE

by Dr. István Urbán

• STRIP TECHNIQUE

by Dr. István Urbán

MATERIAL/PRODUCT SELECTION

Geistlich Bio-Oss®
 Geistlich Bio-Gide®
 Geistlich Mucograft®
 Geistlich SafeScrapper TWIST

FOR MORE INFORMATION

Customer Care Toll-free 855-799-5500

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G-477-16E

CAUTION: Federal law restricts these devices to sale by or on the order of a dentist or physician.

For more information on contraindications, precautions, and directions for use, please refer to the Geistlich Bio-Oss®, Geistlich Bio-Gide® and Geistlich Mucograft® Instructions for Use at: www.geistlich-na.com/ifu