

bone & tissue  
regeneration

botiss  
biomaterials

# cerabone<sup>®</sup> plus

NATURAL BOVINE BONE SUBSTITUTE MATERIAL  
**WITH HYALURONATE**



HyA

biomaterials

cerabone<sup>®</sup>

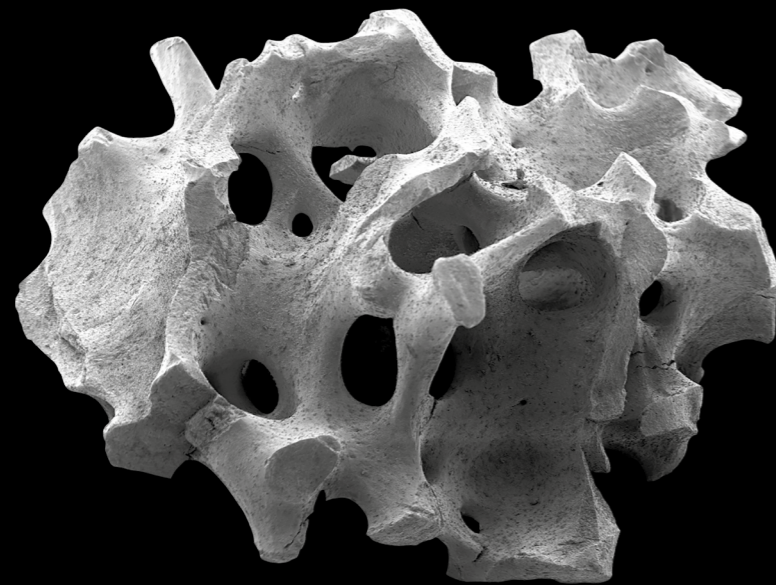
Human-like bone structure

Rough, hydrophilic surface

Ultimate volume stability

1200°C maximum safety

100% pure natural bone mineral



The purest volume stable  
**BOVINE BONE GRAFT.**

[1200TRUST.com](http://1200TRUST.com)



HyA  
HYALURONATE



# Biofunctionalization through Hyaluronic acid

Exceptional liquid binding capacity

Produced naturally in the body

Immunomodulatory activities<sup>1</sup>

Proliferation of fibroblasts<sup>2</sup>

Collagen production<sup>3</sup>

**Promotes blood vessel formation  
and early soft tissue healing<sup>4,5</sup>**



Hyaluronic acid has been shown to enhance the proliferative, migratory and wound healing properties of cell types involved in soft tissue wound healing thus pointing to its potential indication in oral reconstructive procedures

**PROF. DR. ANTON SCULEAN**

<sup>1</sup> Stern et al. (2006) Eur J Cell Biol. 85(6):699-715.  
<sup>2</sup> Greco et al. (1998) J Cell Physiol. 177(3):465-473.  
<sup>3</sup> Rooney et al. (1993) J. Cell Sci. 105, 213-218.  
<sup>4</sup> Sattar et al. (1994) J. Invest. Dermatol. 103, 576-579.  
<sup>5</sup> King et al. (1991) Surgery. 109(1):76-84.

# HyaA

...capable to incorporate  
a liquid volume 1000 times larger than the molecule itself



# cerabone®

# plus

WITH **HYALURONATE**

cerabone® plus combines the established **bovine bone grafting** material cerabone® with the well-known properties of hyaluronic acid.

Thanks to the pronounced liquid binding capacities of hyaluronate, cerabone® plus forms a sticky bone material upon hydration that **provides unique application comfort** by allowing both easy up-take and delivery to the site of application.

## **STICKY BONE OUT OF THE BLISTER**



### **State-of-the-art biotechnological fermentation**

processes are employed for the production of the recombinant sodium hyaluronate used in cerabone® plus.

How to  
**get  
started**



# Application!

**approx. 0.5 ml saline solution per 1.0 ml cerabone® plus**

cerabone® plus requires hydration before use which can conveniently be performed in the provided blister.

Optimal consistency can be tailored to the specific needs by adjustment of liquid volume. E.g. adding slightly less liquid results in a more stable consistency, while adding more liquid enables better dispersion.



# Application in daily **clinical use**

## INDICATIONS:

Implantology, Periodontology,  
Oral- and CMF Surgery

- Horizontal and vertical augmentation
- Peri-implant defects
- Periodontal intrabony defects
- Socket and ridge preservation
- Sinus lift
- Furcation defects (class I and II)

## RECOMMENDATIONS:

If the product appears dry following hydration and no connected mass has formed, additional saline solution can be added dropwise and mixed with the product until the desired texture is obtained. On the other hand, insufficient or excessive amount of liquid can result in a failure to form the described texture or a loss thereof. Likewise, excessive liquid at the augmentation site, i.e. in case of profuse bleeding in sinus floor- or socket augmentation, may reduce the handling of the bone graft during application and its adaptation to the defect. Intra-operatively, cerabone® plus performs optimally when bleeding at the defect site can be controlled, as in the case of well visible defects, e.g. in lateral augmentation.

## SPECIFICATIONS:

cerabone® plus\*

Art.-No.	cerabone® Particle Size	Content
1810	0.5 – 1.0 mm	1 x 0.5 ml
1811	0.5 – 1.0 mm	1 x 1.0 ml
1820	1.0 – 2.0 mm	1 x 0.5 ml
1821	1.0 – 2.0 mm	1 x 1.0 ml

\* Please contact your local distributor to check for availability in your country.

## PROPERTIES + BENEFITS

Osteoconductivity and volume stability of cerabone®

**plus** proven properties of hyaluronate

- Sticky and malleable following hydration
- Efficient defect filling and time-saving application
- Easy defect contouring
- Minimized displacement of single granules during application



## HANDLING TIPS:



- Add liquid carefully dropwise if it is not possible to measure the volume for hydration
- Remove excess liquid from the defect site prior to the application
- Preferably use in self-containing defects
- Fixate the graft with a barrier membrane



It's amazing how fast the cerabone® plus is prepared  
(much quicker than any other sticky bone)  
and how well it performs in the mouth.

**DR. ANDONI JONES**

## CLINICAL CASE BY Dr. Serhat Aslan, Izmir, Turkey

REGENERATION OF AN INTRABONY DEFECT WITH CERABONE® PLUS AND JASON® MEMBRANE



Deep non-contained bone defect at a lateral incisor



Defect augmented with cerabone® plus



Augmentation site covered with Jason® membrane



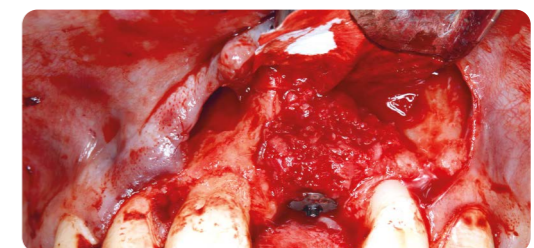
Primary wound closure

## CLINICAL CASE BY Dr. Andoni Jones, Dublin, Ireland

CERABONE® PLUS FOR BONE AUGMENTATION AND SOFT TISSUE SUPPORT IN THE AESTHETIC ZONE



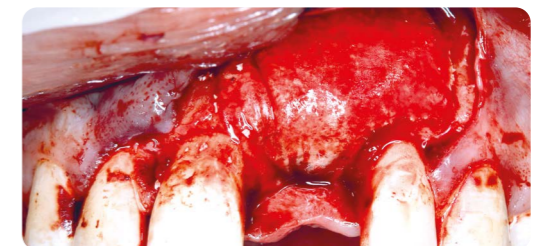
Implant in place with missing bone at the buccal aspect



Augmentation with autologous bone chips



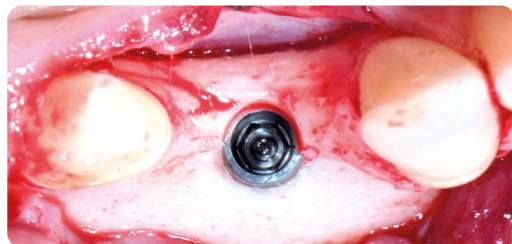
Volume augmentation with cerabone® plus; Jason® membrane in place for covering



Jason® membrane pulled over the augmentation site to completely cover and stabilize the graft

**CLINICAL CASE BY** Dr. Viktor Kalenchuk, Chernivtsi, Ukraine

PERI-IMPLANT BONE AUGMENTATION WITH CERABONE® PLUS AND JASON® MEMBRANE



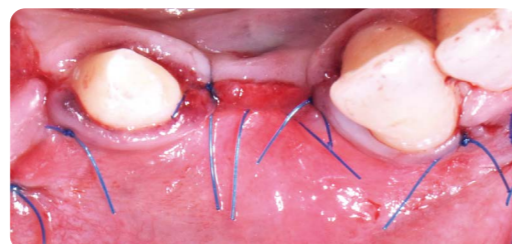
Situation after implant placement with horizontal bone deficiency



Bone augmentation with cerabone® plus



Covering and fixation of the bone graft using Jason® membrane



Primary wound closure

**CLINICAL CASE BY** Dr. Laura Maestre, Valladolid, Spain

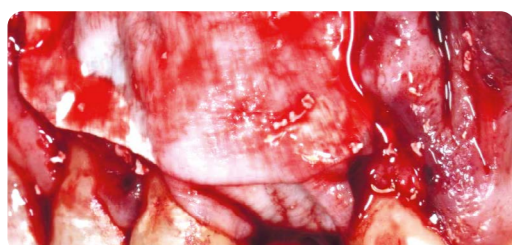
FENESTRATION DEFECT TREATED WITH CERABONE® PLUS AND JASON® MEMBRANE



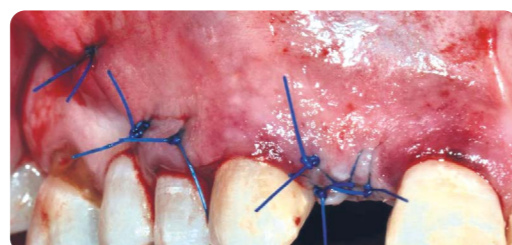
Bone defect visible at the buccal aspect



Bone augmentation with cerabone® plus after application of autologous bone chips on the exposed implant



Covering of the augmentation site using Jason® membrane



Primary wound closure

**CLINICAL CASE BY** Dr. Michael Norton, London, UK

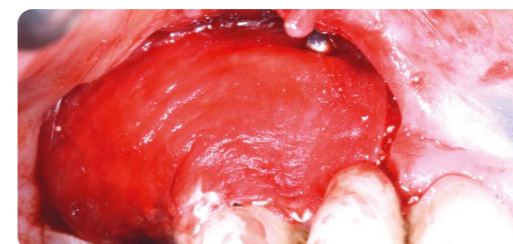
CERABONE® PLUS FOR BONE AUGMENTATION OF A PERI-IMPLANTITIS-AFFECTED SITE



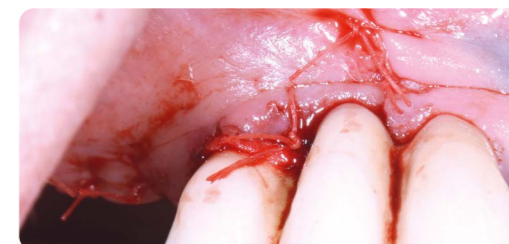
Implant site after decontamination



Bone augmentation with cerabone® plus, hydrated with tetracycline



Covering with Jason® membrane tightly adapted to the augmentation site



Primary wound closure

**CLINICAL CASE BY** Dr. László Párkányi, Szeged, Hungary

HORIZONTAL BONE AUGMENTATION USING CERABONE® PLUS AND JASON® MEMBRANE



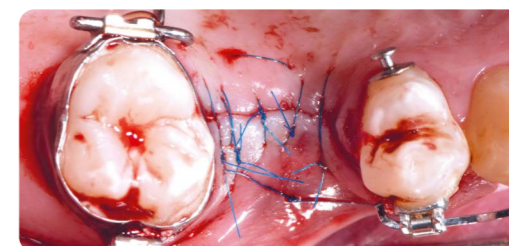
Implant in place with reduced bone volume at the buccal aspect



Augmentation with cerabone® plus



Augmentation site covered with Jason® membrane

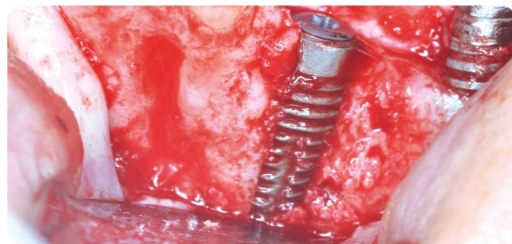


Primary wound closure



**CLINICAL CASE BY** Dr. Stuardo Valenzuela, Coquimbo, Chile

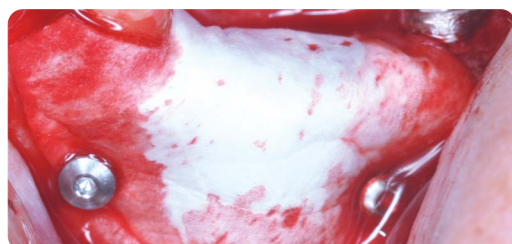
PERI-IMPLANT BONE AUGMENTATION WITH CERABONE® PLUS AND JASON® MEMBRANE



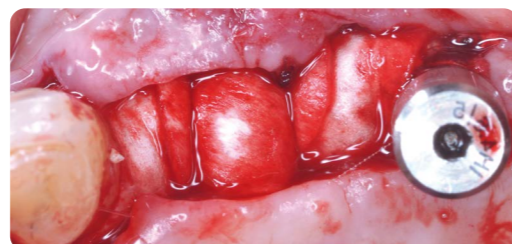
Placed implant with bone dehiscence



Bone augmentation using cerabone® plus



Augmentation site covered with Jason® membrane



Situation before suturing and flap closure

**CLINICAL CASE BY** Dr. Javier Sanz Esporin, Madrid, Spain

REGENERATION OF AN INTRABONY DEFECT WITH CERABONE® PLUS



Deep intrabony defect mesially of tooth 47



Application of cerabone® plus



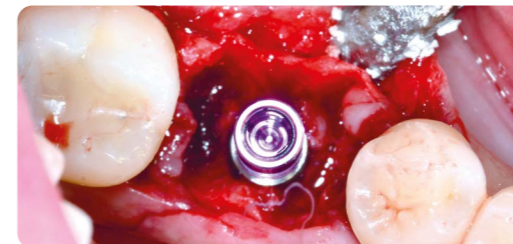
Bone defect filled with cerabone® plus, which was subsequently covered with a collagen membrane



Healing two months post-operative

**CLINICAL CASE BY** Dr. Rafael Block Veras, Berlin, Germany

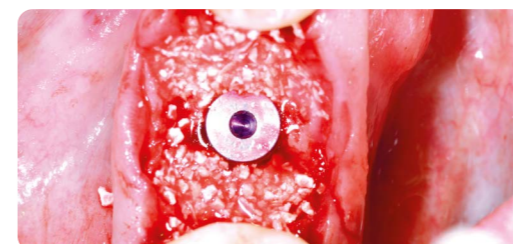
IMMEDIATE IMPLANT PLACEMENT AND PERI-IMPLANT BONE AUGMENTATION WITH CERABONE® PLUS



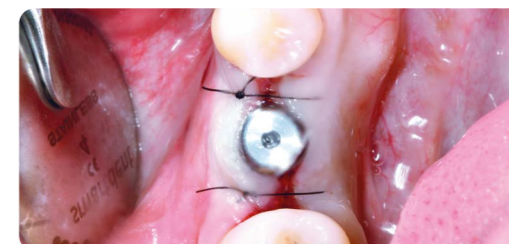
Implant in place; Jason® membrane applied prior to bone grafting



Easy transfer of cerabone® plus to the augmentation site



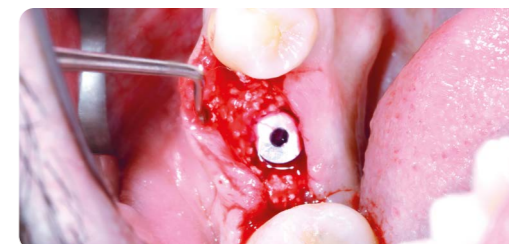
Peri-implant missing bone augmented with cerabone® plus



Insertion of the healing cap and suturing



Healing three months post-operative before implant exposure



Re-entry three months post-operative



Very comfortable to use  
and to apply intraoperatively.

**DR. RAFAEL BLOCK VERAS**

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Innovation.  
Regeneration.  
Aesthetics.

soft tissue

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hard tissue

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