ACE SOUTHERN
A HENRY SCHEIN® BRAND

UNLOCKING GROWTH FACTORS ENHANCING BIOAVAILABILITY

Regeneration Naturally™

INDUCE Oi-9™

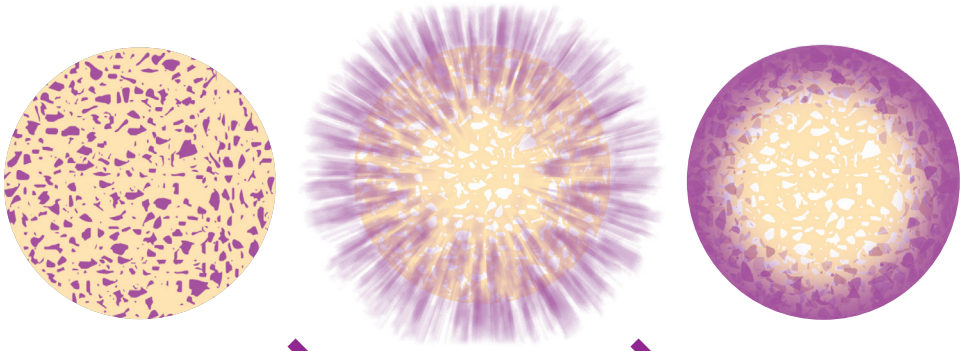
- The NMP® (Natural Matrix Protein®) Process unlocks natural growth factors
- Ambient temperature storage with a 5-year shelf life
- Available in FiberMatrix and Micro Particulates

INDUCE Oi-9 BIOIMPLANTS

Regeneration Naturally™

INDUCE Oi-9 Bioimplants are advanced allografts that harness natural growth factors to replicate the body's innate healing capabilities by the NMP® (Natural Matrix Protein®) Process.

The proprietary NMP Process unlocks growth factors from the bone matrix and makes them bioavailable.[1] NMP processing is a multi-step process which includes removing a majority of the mineral component.



Natural Bone Matrix
Growth Factors Locked in Bone Matrix, Limited Osteoinductive Activity

NMP Processing

INDUCE Oi-9
Growth Factors Unlocked and Bioavailable

An Array of Growth Factors and BMPs Supporting Regeneration

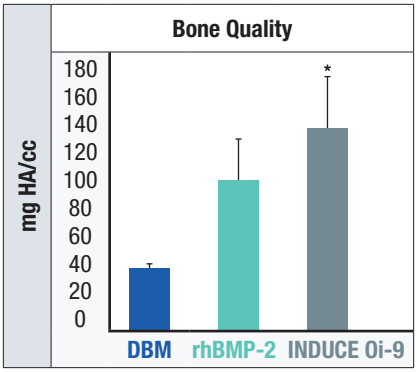
INDUCE Oi-9 Bioimplants contain growth factors and BMPs to support the complex cascade of bone regeneration including BMP-2, BMP-7, BMP-9, TGF-B1, PDGF, VEGF, and IGF-2. The NMP process enhances their bioavailability as shown through analytical testing.

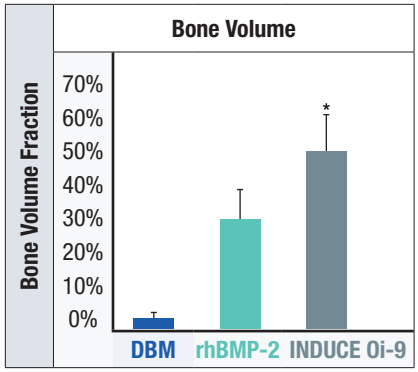
Multiple bone morphogenic proteins, growth and differentation factors play a critical role in bone formation. These growth factors work synergistically to promote bone formation.[2]

	BMP-2	BMP-7	TGF-ß1	VEGF	PDGF
Growth Factor Function	Osteoinduction	Osteoinduction	Angiogenesis; Bone Matrix Formation	Angiogenesis	Angiogenesis; MSC Proliferation
INDUCE Oi-9**	●●●○○	●●●○○	●●○○○	●●●○○	●●●○○
rhBMP-2	●●●●●	○○○○○	○○○○○	○○○○○	○○○○○

Comparison in Bone Healing[3] in Quality and Quantity

The INDUCE Oi-9 Bioimplant has been shown to form more bone of a better quality than rhBMP-2 in animal studies.





Bioavailability

The NMP Process unlocks growth factors naturally found in bone, making them bioavailable for bone regeneration.

Superior Handling & Flexibility

Upon hydration, INDUCE Oi-9 becomes a moldable, easy to place putty and may be used alone or in combination with other regenerative materials.

Safe & Convenient

INDUCE Oi-9 is terminally sterilized with a 5-year shelf life and stored at ambient temperature.

INDUCE Oi-9 is recommended as a bone filler for:

- Saving teeth and implants
- Ridge Augmentation
- Periodontal Defects
- Furcation Defects
- Peri-Implantitis
- Sinus Elevation

[1] Statistically significant, $p<0.01$

[2] Li P., et al. Synergistic and sequential effects of BMP-2, bGF and VEGF on osteogenic differentiation of rat osteoblasts. J Bone Miner Metab 32, 627-635 (2014).

[3] Kohen Y., Shivanna S. and Peel SAF. Evaluation of Natural Matrix Proteins (NMP) Bone Allograft in vitro and in vivo. ASBMR. LB SUN-908, 2022.

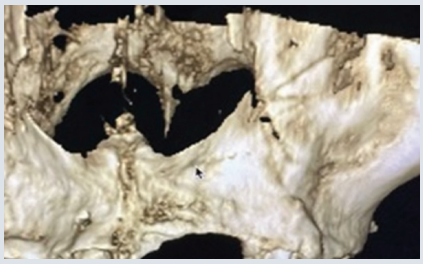
INDUCE Oi-9™

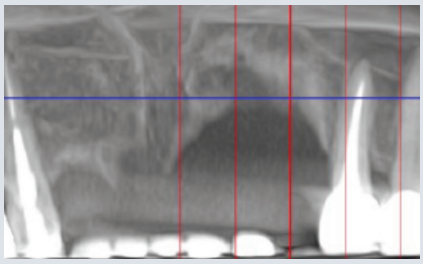
INDUCE Oi-9 CASE STUDY: HORIZONTAL AND VERTICAL ANTERIOR MAXILLARY DEFICIENCY

A healthy 73 year-old female had her anterior maxillary implants fail in 2011. She has since been wearing a partial anterior maxillary prosthesis. Recently, her maxillary right canine fractured, making the denture uncomfortable to wear. Her desire was to return to a dental implant supported restoration.

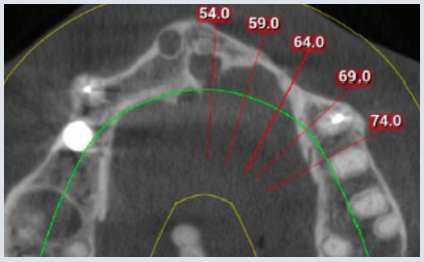
Charles F. Orth, DDS, PA Dallas, TX

Clinical image without partial maxillary denture.

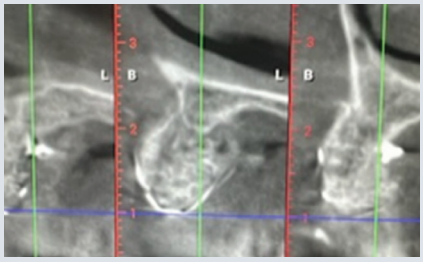


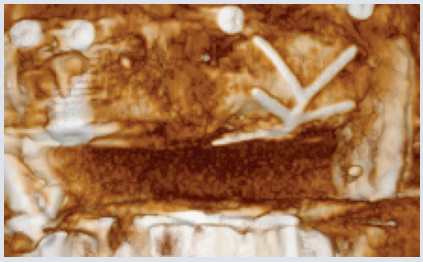


Pre-operative imaging revealed significant deficiencies in both vertical height and horizontal width. The decision was made to augment the deficient anterior maxilla using 2.5 cc of INDUCE Oi-9 FiberMatrix Bioimplant.

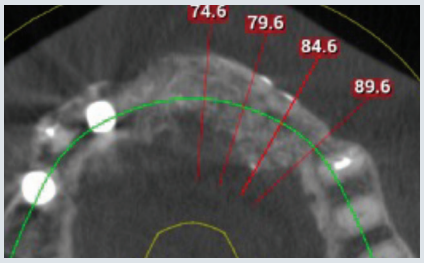


Pre-operative CT showing vertical measurements.

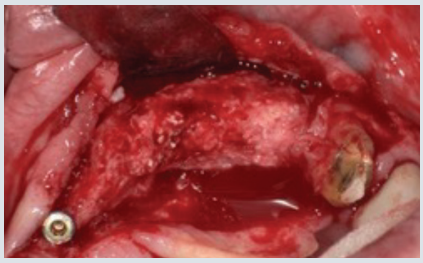


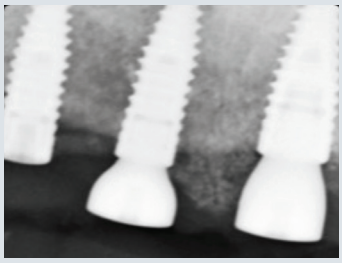


Excellent reconstruction of both vertical height and horizontal width was achieved following INDUCE Oi-9 augmentation. A titanium-reinforced growth factor membrane was used to maintain space during the healing process.



CT post-operative horizontal measurement shows significant augmentation.





Clinical and radiographic images taken at the time of and immediately following implant placement. Notice the amount of bone formed, and the quality of the regenerated bone is clearly visible radiographically. The demarcation between the pre-existing bone and the new bone is clearly identifiable on the radiograph.

Dr. Orth received his dental degree from Creighton University in 1984. Following his graduation from dental school, Dr. Orth completed the Advanced Speciality Education Program in Periodontics and Implants and a Masters of Science Degree at Baylor College of Dentistry in 1986. In 1991, the American Board of Periodontology granted Dr. Orth the distinction of a Board Certified Specialist in Periodontics and Implants, a status attained by fewer than one percent of all private practice dentists in the United States.

Dr. Orth is very active in dental education. He is an assistant Clinical Professor at Baylor College of Dentistry and Director of the Excel Study Club, an advanced dental study club dedicated to promoting scientific knowledge, research, and clinical use of dental implants and periodontics. He has published several articles in scientific journals.

INDUCE Oi-9™

INDUCE Oi-9 is available in two forms:

- FiberMatrix is made from NMP® (Natural Matrix Protein®) Processed human cortical fiber and particulates
- Micro Particulates made from NMP (Natural Matrix Protein) Processed human cortical particulates

Storage and Handling Information:
INDUCE Oi-9 Bioimplants are freeze dried and sterile and should be stored at ambient temperature.

To rehydrate and prepare product for use, cover allograft with whole blood, lactated ringers or normal saline. Please see Instructions for Use included with each product for more information.

Unit Size	Rehydration Volume
0.5cc	0.2 - 0.4ml
1.0cc	0.5 - 0.8ml

INDUCE Oi-9 FiberMatrix
NMP Processed Cortical Fiber and Particulates
0.25-1mm

INDUCE Oi-9 Micro Particulates
NMP Processed Cortical Particulates
0.25-1mm

Ordering Information:

INDUCE Oi-9 FiberMatrix	Particulate size: 0.25mm -1mm	Volume
1475849	NMP Processed Cortical Fiber and Particulates	**0.5cc vial**
1475850	NMP Processed Cortical Fiber and Particulates	**1.0cc vial**
INDUCE Oi-9 Micro Particulates	Particulate size: 0.25mm -1mm	
1475852	NMP Processed Cortical Particulates	**0.5cc vial**
1475851	NMP Processed Cortical Particulates	**1.0cc vial**

For the most up-to-date pricing, please contact ACE SOUTHERN or visit our website at **www.acesouthern.com**.

INDUCE Oi-9™ is sourced from tissue banks accredited by the American Association of Tissue Banks (AATB®) who perform donor screening, tissue procurement procedures, and processing of human bone using the NMP® Process to prepare INDUCE Oi-9 products.