

The unique solution to predictable bone regeneration

NovaBone Dental Putty increases productivity due to its ease of use and handling characteristics. It delivers predictable bone quickly and effectively.

Feature	Benefit
Superlative Handling	No mixing is required. Putty can be placed directly into the defect.
Completely Resorbable	Putty resorbs completely and gets replaced by bone. Re-entry time is about 4-5 months and is dependent on the size and site of the defect
Retention & Adaptability	Putty stays together after placement and irrigation. It is moldable into different shapes and adapts well to the defects and implant surfaces
Osteostimulation	Putty exhibits enhanced bone regeneration rates compared to other bone graft substitutes by a unique phenomenon: Osteostimulation
Storage & Shelf Life	Putty does not require special storage conditions. It can be stored at room temperature. 4-year shelf life

NovaBone Dental Putty is available in multiple delivery formats including **syringes**, **clam shells**, and **cartridges** to suit various clinical applications.

The **"Cartridge"** delivery system is unique and an industry first! NovaBone Dental Putty is the only graft material in the world available in disposable, uni-dose "Cartridges" that significantly simplify grafting procedures.

NovaBone Dental Putty: Cartridge System

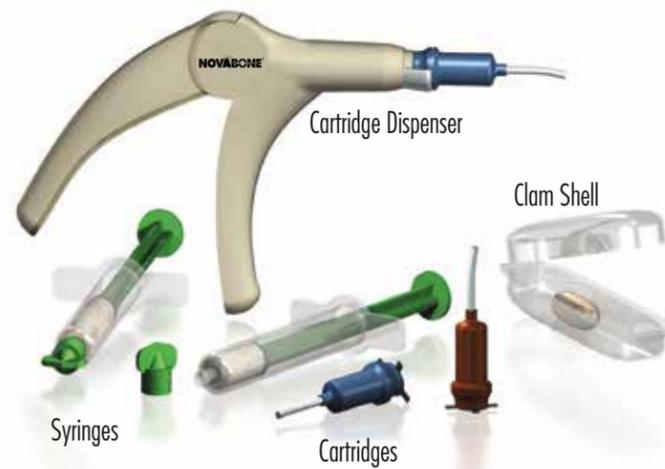
0.5cc Cartridges (blue)	2/box
0.5cc Cartridges (blue)	4/box
1.0cc Cartridges (orange)	2/box
Centrix Applicator Gun	each

NovaBone Dental Putty: Syringe

0.5cc Syringe	1/box
0.5cc Syringe	2/box
1.0cc Syringe	1/box
2.0cc Syringe	1/box

NovaBone Dental Putty: Clam Shell

0.5cc Shell	1/box
0.5cc Shell	2/box
1.0cc Shell	1/box
1.5cc Shell	2/Pk



Not all dispensing formats and sizes are available in all countries. Contact your local representative for item #, sizes and availability.

NOVABONE
DRIVING INNOVATION IN OSTEOBIOLOGICS

US & CANADA

NovaBone Products, LLC
13631 Progress Blvd. #600
Alachua, FL 32615
Ph: +1 (855) - 265 - 8013
www.nbputty.com

INDIA

NovaBone Products Pvt. Ltd.
Suite 704, Barton Center
84 MG Road, Bangalore 560001
Ph: +91 80 4095-8299
www.novabone.in

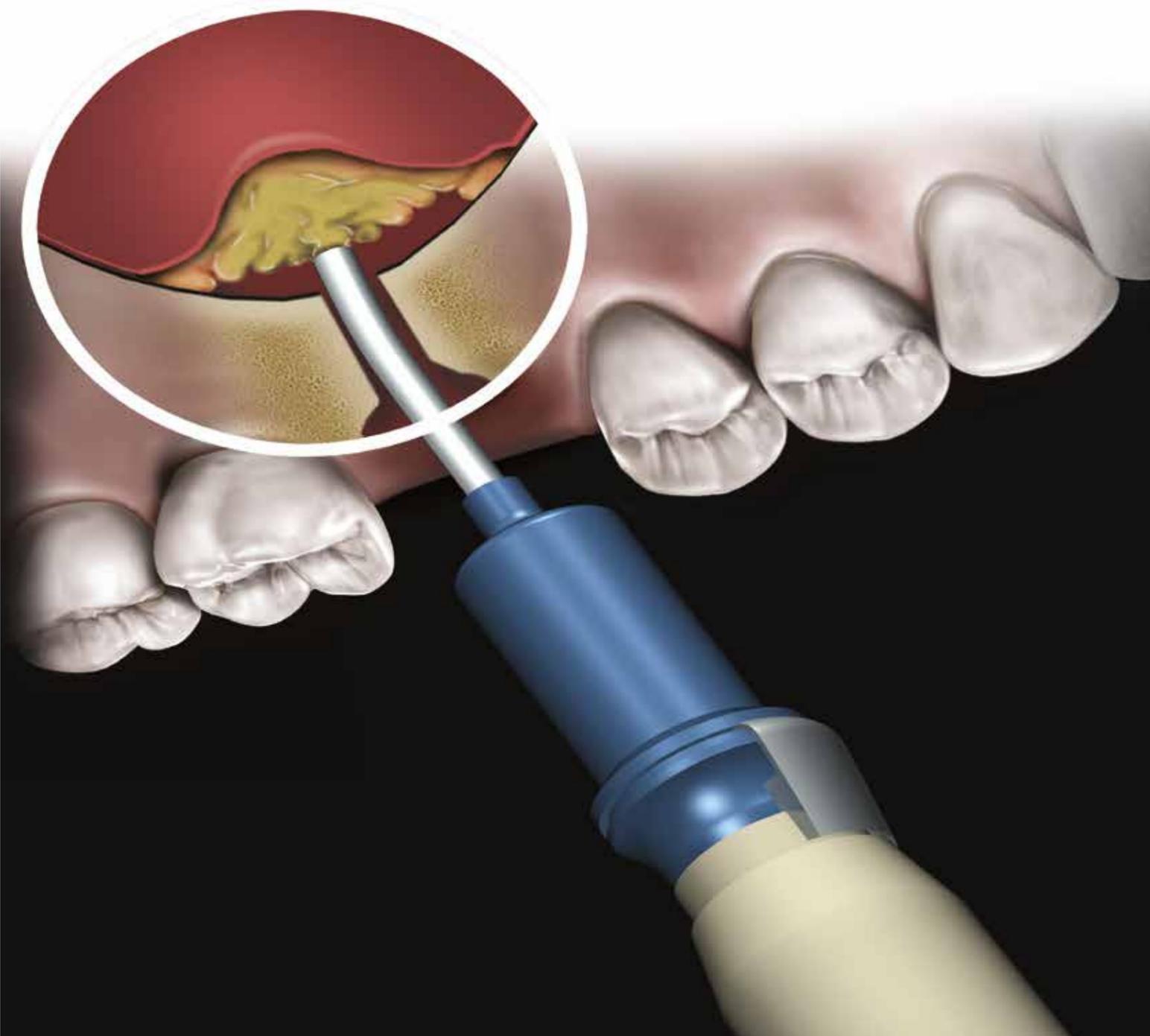
CHINA

NovaBone China
Central Plaza 10th Floor #1037
Shanghai 200020
Ph: +86 21 6391-5870
www.novabone.com.cn

www.facebook.com/nbputty

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NOVABONE[®]
PUTTY CARTRIDGE SYSTEM



SIMPLIFYING SINUS GRAFTING

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Uncommon handling

Unique Formulation

NovaBone Dental Putty is the only commercially-available, non-settable completely synthetic bone graft substitute. Quite simply, it is designed to deliver unprecedented ease-of-handling without compromising on the quality of the outcome. It is not just a 'bone void filler'; rather, it is a calcium-phosphosilicate composed of minerals found naturally in the body that allow for rapid bone regeneration. NovaBone contains a binder that helps maintain space between particles to allow for vascularization, tissue growth, and new bone formation. It is indicated for all periodontal, implant related, and craniofacial defects.

Osteostimulation

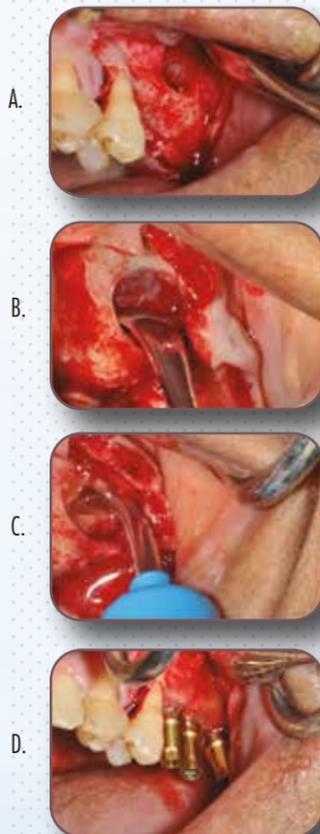
NovaBone Dental Putty belongs to the class of bioactive regenerative materials that not only acts as an osteoconductive scaffold, but also imparts an osteostimulatory effect. Release of Si from putty particles is the key in signaling and recruiting bone precursor cells to the defect site and stimulating osteoblast differentiation and proliferation - the basis for new bone growth.

Uncompromised Regeneration

The CPS particles in NovaBone Dental Putty have more than 20 years of international clinical use behind them with over 50 studies on file. Data shows that NovaBone Dental Putty is clinically superior to the granular particulate alternatives with regard to the ultimate end result - the successful regeneration of bone between the implant and the existing bone structure. Putty is also dramatically more convenient to use.

Lateral Window Approach

(Case Courtesy and Testimonial: Dr. Udatta Kher, MDS)



A lateral sinus elevation with simultaneous implant placement was performed on a 57 year old patient to replace teeth # 13, 14, 15 (E). A full thickness mucoperiosteal incision was made to expose the lateral wall of the maxillary sinus (A). A piezosurgical device was used to make a bony window on the lateral wall of the sinus. The window was out fractured and the sinus lining was carefully lifted using sinus elevators (B). NovaBone Putty in a unique cartridge delivery system was used to introduce the graft material along the sinus floor (C). The osteotomy sites were prepared and 3 implants (Biohorizons) were placed (D and F). The bony window was placed back in its original position, and the wound was closed using monofilament interrupted sutures. Implants were loaded after 5 months. A post-operative CBCT taken prior to loading showed bone fill around all implants (G).

"The putty consistency of NovaBone is easy to manipulate, and the unique cartridge delivery allows access to unreachable areas. I am able to do sinus grafts through smaller windows with reduced intra-operative complications. The radiopacity of the material is optimum for visibility on a radiograph. Above all, the material holds its form long enough to facilitate new bone formation."



Uncompromised results

Crestal Approach

(Case Courtesy and testimonial: Dr. George Kotsakis, DDS)

A twenty-eight year old male patient with non-contributory medical history presented for indirect sinus lift and implant placement #13. Radiographic evaluation revealed residual ridge height approximately 6.5mm at the desired implant location. Following elevation of a mucoperiosteal flap, an osteotomy was initiated to approximately 2mm from the floor of the sinus. Following placement of 0.2cc of NovaBone Putty in the osteotomy, an osteotome and a mallet were utilized to in-fracture the floor of the sinus. The putty is placed prior to the use of the osteotomes to function as a "cushion", preventing possible perforation of the membrane and minimizing transmission of percussive forces. Subsequently, NovaBone Putty was injected directly into the sites with the aid of a pre-loaded cartridge delivery system. The hydraulic pressure applied by the viscoelastic putty aided in further, atraumatic elevation of the Schneiderian membrane. Following sequential enlargement of the osteotomies, the site was able to accommodate a 4.0 x 11.5mm tapered implant with optimal primary stability. The implant was successfully osseointegrated and loaded 4 months post-operatively.

"The unique handling characteristics of the NovaBone putty in combination with the cartridge delivery system allow for significant simplification of routinely used techniques in implant dentistry and significant reduction in intra-operative treatment time."



NovaBone Putty delivered directly into the sinus using the Cartridge System



Pre-op and immediate post-op radiographic images showing bone fill in the sinus

Modified Osteotome Technique

Though there are several ways to access the sinus via the crestal approach (Osteotome technique, Balloon Technique, etc.), elevating the membrane and delivering the bone graft into the sinus can be difficult and challenging. NovaBone Cartridge System simplifies the delivery of graft into the sinus when accessed through the crest of the ridge. The tip of the cartridge is 2mm in diameter and is designed specifically to deliver the graft seamlessly into the sinus. Putty consistency can also help prevent membrane tears. The delivery of the putty graft can elevate the membrane with minimal instrumentation and hydraulic pressure.

Easy access into sinus through crestal floor for sinus augmentation with Osteotome technique can be achieved in 4 simple steps. Step 1: Prepare the osteotomy to less than 1mm from the sinus floor. Step 2: An osteotome is then used to gently fracture the bone in the area. Step 3: The canula from the cartridge tip can be pressed against the surface of the bone and the putty is injected into the area resulting in membrane elevation with hydraulic pressure from Putty delivery. Step 4: An implant can then be placed in the augmented area.



Step 1

Step 2

Step 3

Step 4