nanOss[®] 3D Plus



Advanced Bone Graft Substitute

Surface matters.

nanOss[®] 3D Plus Advanced Bone Graft Substitute

Surface matters when fusion matters.

Nano-structures enabled the creation of consistent and constant super-fine hydroxyapatite particle architecture that has high fusion rates (97%)¹.

Architecture

Nano-structures with interconnected porosity and high surface areas (100x more than synthetic competitors) provide increased potential for cell adhesion, proliferation, and differentiation.²



Autograft²



Nano-structured HA Component of nanOss 3D Plus²





Vitoss^{2,4}

Note the similarity in the size and shape of the nano-structured HA to bone, especially when compared to other synthetic-based bone grafts 7,000x magnification.

Attachment

Nano-structured super-fine hydroxyapatite crystals in nanOss 3D Plus have an increased surface area due to smaller particles thus increasing potential for cell attachment.



Interconnected Pores of nanOss



Cellular Attachment on nanOss

Nano-structured HA at 100,000x magnification shows nano-crystalline size, interconnected porosity, and a large surface area.

Item

Product Name

90-400-2550490-400-25100490-400-2550890-400-251008

nanOss 3D Plus, 5cc; 25x50x4 nanOss 3D Plus, 10cc; 25x100x4 nanOss 3D Plus, 10cc; 25x50x8 nanOss 3D Plus, 20cc; 25x100x8

- nanOss 3D ABGS: Epstein NE. High lumbar noninstrumented fusion rates using lamina autograft and nanOss/bone marrow aspirate. Surg Neurol Int 2017;8: I53.
- 2. Data on file at Xtant Medical.
- 3. K082575.
- 4. K032409.

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indicated to be gently packed into bony voids or gaps in the skeletal system (i.e., extremities, posterolateral spine, and pelvis). nanOss must be mixed with autogenous blood or sterile saline for use in the extremities or pelvis. nanOss mustbe mixed with bone marrow aspirate and autograft bone as a bone graft extender in the posterolateral spine. These defectsmay be surgically created osseous defects or defects created from traumatic injury to the bone. The product provides abone void filler that resorbs and is replaced with bone during the healing process. **Description:** nanOss is a resorbable bone void filler (BVF) consisting of calcium phosphate and a porcine gelatin carrier provided

Indications: nanOss® is intended for bony voids or gaps that are not intrinsic to the stability of bony structure. The product is

in granular form. The BVF is radiopaque, provided sterile and is intended for single use only. The product is provided pre-filled in a mixing container as nanOss or in a mixing chamber/syringe as nanOss Loaded.

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