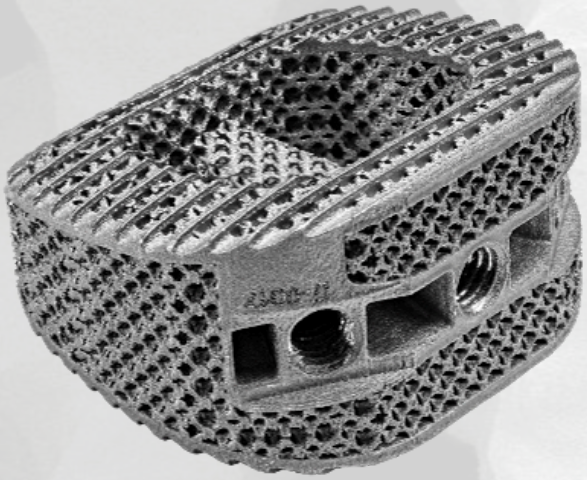
NanoHive Medical

THE HIVE™ PRODUCT PORTFOLIO

FEATURING SOFT TITANIUM® TECHNOLOGY

HIVE AL INTERBODY SYSTEM



A BETTER FUSION SOLUTION

The HIVE AL Interbody System includes a range of implant sizes to accommodate vertebral anatomy and incorporates a Soft Titanium lattice structure to deliver maximum durability while optimizing visualization.

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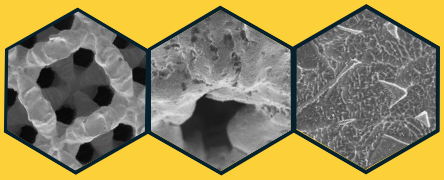
THE HIVE SOFT TITANIUM TECHNOLOGY

BONE ONGROWTH



- Proprietary NanoHive® acid etch surface treatment drives increased osteoblast recruitment, as compared to untreated surfaces [1]
- Rapid bone attachment seen at endplates and throughout the lattice [2]
- Macro, micro and nano-scale features on all surfaces, as well as each member of the internal cell structure, are designed to support osteoblast adhesion and optimize the environment for bony on-growth [1,3]

BONE INGROWTH

- Interconnected 300-900 micron pores shown to be optimal for new bone ingrowth, allows flow of cells and signals
- 70% porous, allowing bony ingrowth
- Bone growth observed within the lattice before being observed in the packed lumen [2]

INJECTION CHANNELS

- Maximizes volume of bone graft within the lateral walls of the implant

IMPLANT SIZES

32mm wide x 26mm deep
- Lordosis: 8°, 15°
- Height: 11, 13, 15, 17mm

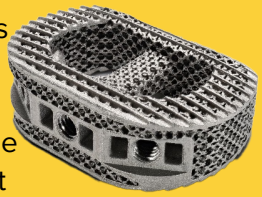
38mm wide x 26mm deep
- Lordosis: 8°, 15°, 22°
- Height: 11, 13, 15, 17, 19mm

IMPROVED VISUALIZATION

- Low density lattice designed to allow visualization of endplate fusion and bone growth through the cage
- CT/MRI scatter and interference reduced

REDUCED IMPLANT STIFFNESS

- Patented rhombic dodecahedron lattice with independent endplates reduces the need for stress shielding design features found in other implants



- Soft Titanium lattice allows bone cells growing within the implant walls to experience natural loads, significantly increasing bone strength per Wolff's law

INTUITIVE INSTRUMENTATION

- Streamlined instrumentation for disc preparation and implant insertion accommodates a variety of anatomical conditions and approaches, including oblique insertion

[1] N. J. Bassous, C. L. Jones and T. J. Webster, 3-D printed Ti-6Al-4V scaffolds for supporting osteoblast and restricting bacterial functions without using drugs: Predictive equations and experiments, Acta Biomaterialia 96 (2019) 662–673, https://doi.org/10.1016/j.actbio.2019.06.055,
[2] CL Jones, D Bichara, J Toy, J Tinley. (2018) "Bone In Growth with 3D-Printed Soft Titanium® Scaffold." [White Paper], NanoHive Medical, LLC.
[3] Ejiofor J., et al, Bone Cell Adhesion on Titanium Implants with Nanoscale Surface Features. International Journal of Powder Metallurgy, 40(2), 43-53.

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