

A REVOLUTION IN INTERBODY FUSION



*Radiotranslucent
under X-ray*



*Reduced artifact
under CT or MRI*

Nanotopography enhances osteoblast response initiating fusion¹

Surface chemistry generates anti-bacterial properties²

Optimal material density enables radiotranslucent and reduced artifact imaging³

IMPLANT FOOTPRINTS AND SIZES



Footprints: 14x12mm and 16x14mm

Height: 5-12mm, 1mm increments

Lordosis:

0° 14x12mm, 0° 16x14mm (special order only)

6° 14x12 mm and 16x14mm



Why keep using the same material expecting different results?

AMEDICA'S SILICON NITRIDE

Silicon nitride has unique benefits making it the ideal biomaterial.

Silicon nitride's nano-textured surface at 10 microns ▼



Faster Fusion Rates

Compared to PEEK and Titanium, Amedica's silicon nitride demonstrates greater new bone formation¹ and has an innate nanotopography and surface chemistry that provides an optimal environment for bone growth. This combination of initiating bone growth with increased surface area enhances osteoblast response accelerating the fusion process⁴.

Anti-bacterial Properties

The negative surface charge of silicon nitride repels bacteria and prevents biofilm formation². The hydrophilic surface creates a molecular water barrier preventing the adhesion of bacteria.

Enhanced Imaging Capabilities

Silicon nitride implants are radiotranslucent with visible boundaries and produce no artifact under CT or MRI; this enables an exact view of the implant for precise intraoperative placement and post operative fusion assessment³.

TO OFFER YOUR PATIENTS THE OPTIMAL IMPLANT CHOICE,
CONTACT US AT **855.839.3500** OR VISIT US AT **AMEDICA.COM**

REFERENCES:

1. Gorth DJ, et.al. Decreased bacteria activity on Si3N4 surfaces compared with PEEK or titanium. *Int J Nanomedicine* 7:4829-4840 (2012).
2. Webster TJ, et.al. Anti-bacterial and Osteointegration Properties of Silicon Nitride, Poly(ether ether ketone), and Titanium Implants, *Acta Biomater.* 8 [12] 4447-4454 (2012).
3. M. Anderson et.al. Medical Imaging Characteristics of Silicon Nitride Ceramic A New Material for Spinal Arthroplasty Implants; p. 547 8th Annu. Spine Arthroplast. Soc. Glob. Symp. Motion Preserv. Technol. Miami, FL (2008).
4. Pezzotti G, et.al. Human Osteoblasts Grow Transitional Si/N Apatite in Quickly Osteointegrated Si3N4 Cervical Insert, *Acta Biomater.* 64 pp. 411-420, (2017).