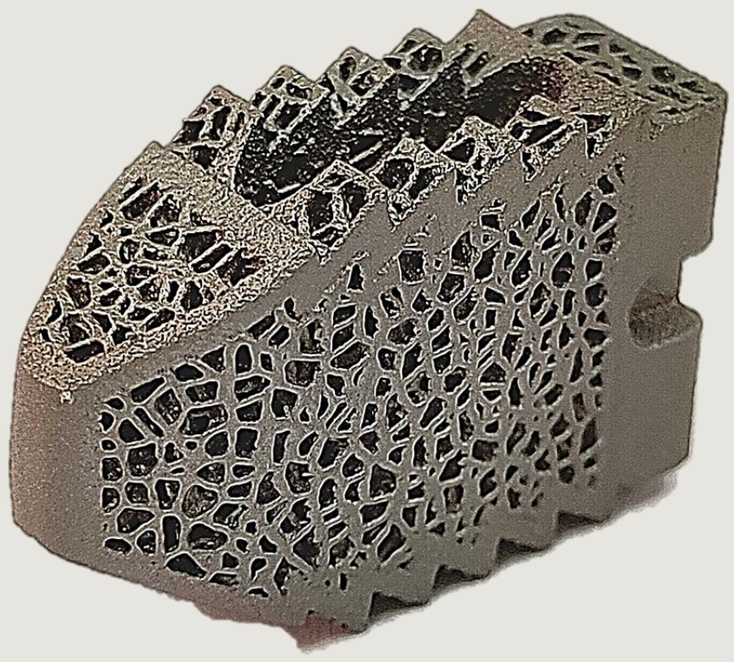
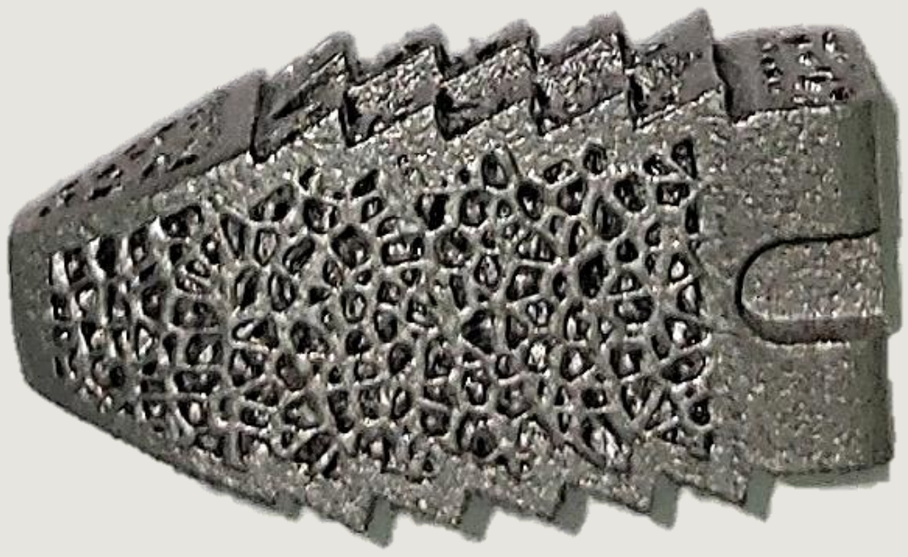
ADDITIVE MANUFACTURED LATTICE STRUCTURED PLIF SPINAL IMPLANTS

- Lattice-structured Posterior Lumbar Interbody Fusion (PLIF) implants play a crucial role in spinal fusion surgeries, addressing conditions such as degenerative disc disease, spinal instability, and spinal deformities.
- These implants are specifically designed to stabilize the spine by filling the intervertebral space and promoting bone fusion between vertebrae.
- Manufactured through additive manufacturing techniques, they feature precise designs that align perfectly with spinal anatomy.
- The lattice structure enhances the contact surface area, facilitating faster and more robust osseointegration.
- Additionally, the design supports load sharing, reducing stress shielding effect, mimicking natural spinal biomechanics and ensuring long-term stability.





❖ **Key Features:**

- **Porous Lattice Structure:** Facilitates bone ingrowth and fusion between vertebrae. Ensures optimal load transfer to mimic natural spinal biomechanics.
- **Enhanced Surface Area:** Increased contact area with vertebral endplates for better stability and fusion rates.
- **Lightweight and Durable:** Manufactured from biocompatible material Ti6Al4V ELI, ensuring strength and longevity.

❖ **Applications:**

- Spinal fusion surgeries to stabilize vertebrae and alleviate pain.
- Treatment of conditions such as spondylolisthesis, spinal stenosis, or disc herniation.
- Used in revision surgeries to address failed spinal fusions.

❖ **Advantages:**

- Accelerates spinal fusion through enhanced osseointegration.
- Reduces risk of implant migration and failure.
- Improves load distribution, reducing stress shielding and promoting natural spinal biomechanics.

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