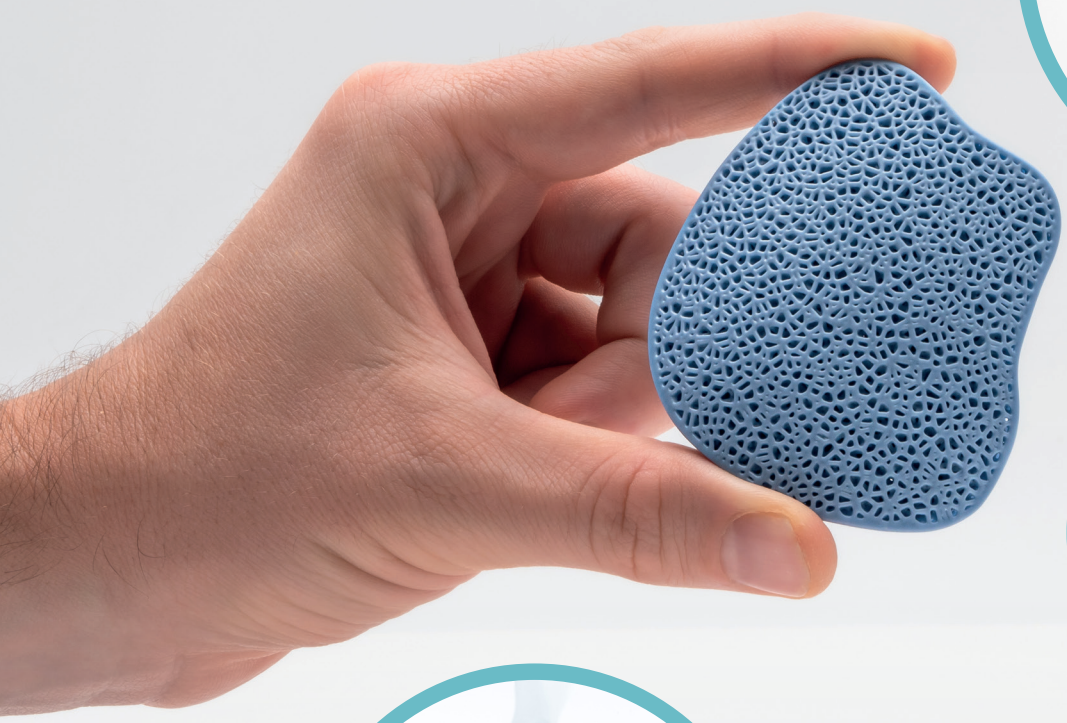
LITHOZ®

We are ceramic 3D printing.

Ceramic 3D Printing for Bone Healing



– EVERY PATIENT DESERVES UNIQUE SOLUTIONS –

Your system provider for the 3D printing of high-performance ceramics.

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Ulna wedge implant, hydroxy apatite (LithaBone HA 480)

Bioresorbable Ceramic Implants

Ceramic implants have a **long** and **trusted history** in medical applications. Ceramic materials, such as tricalcium phosphate (TCP) or hydroxy apatite (HA) and mixtures of these are **osteoconductive** and exhibit very similar characteristics to human bones. During the healing phase, these implants will be resorbed by the body and **replaced by native bone tissue,** meaning that a painful second surgery for the removal of the implant once the defect is healed is not necessary.

Mandibular cage, zirconia (LithaCon 3Y210) and hydroxy apatite (LithaBone HA 480)

Faster Patient Recovery for Your Economical Benefit

By using additive manufacturing to produce resorbable ceramic implants, **surgery is less painful** and recovery time is greatly reduced. Surgery times are reduced, allowing for the more efficient use of scarce resources such as operation rooms.

By building up your knowledge about ceramic 3D printing today, you will be ensuring a more **efficient healing** process for patients in the future, as well as taking advantage of a real economical benefit.

Critically Sized Bone Defects

Critically sized bone defects are the results of incidents, such as trauma and tumor removals, where **the body can no longer heal itself.** Left untreated, such defects can lead to the patient's mobility being permanently limited. Bone implants today usually use grafts from other areas of the body, with bone being taken, for example, from the hip and implanted in the defect. However, **bone** tissue is of course a **limited resource** in the patient's body and this process requires more than one surgery site, making it more costly and traumatic for the patient. Therefore artificial bone replacement materials are an ideal alternative.

Zygomatic implant, tricalcium phosphate (LithaBone TCP 300)

3D-printed Implants

The bone defect is scanned in order to determine the necessary shape of the implant. The inner structure of the implant is then specifically designed for the body area, allowing an optimized bone healing process. After being printed and sintered, the implant is now ready for the patient and the **medical benefits** of **ceramic implants** come into play once inserted.

Spinal cages, silicon nitride (LithaNit 782)

Contact Us

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Watch the complete printing process on YouTube