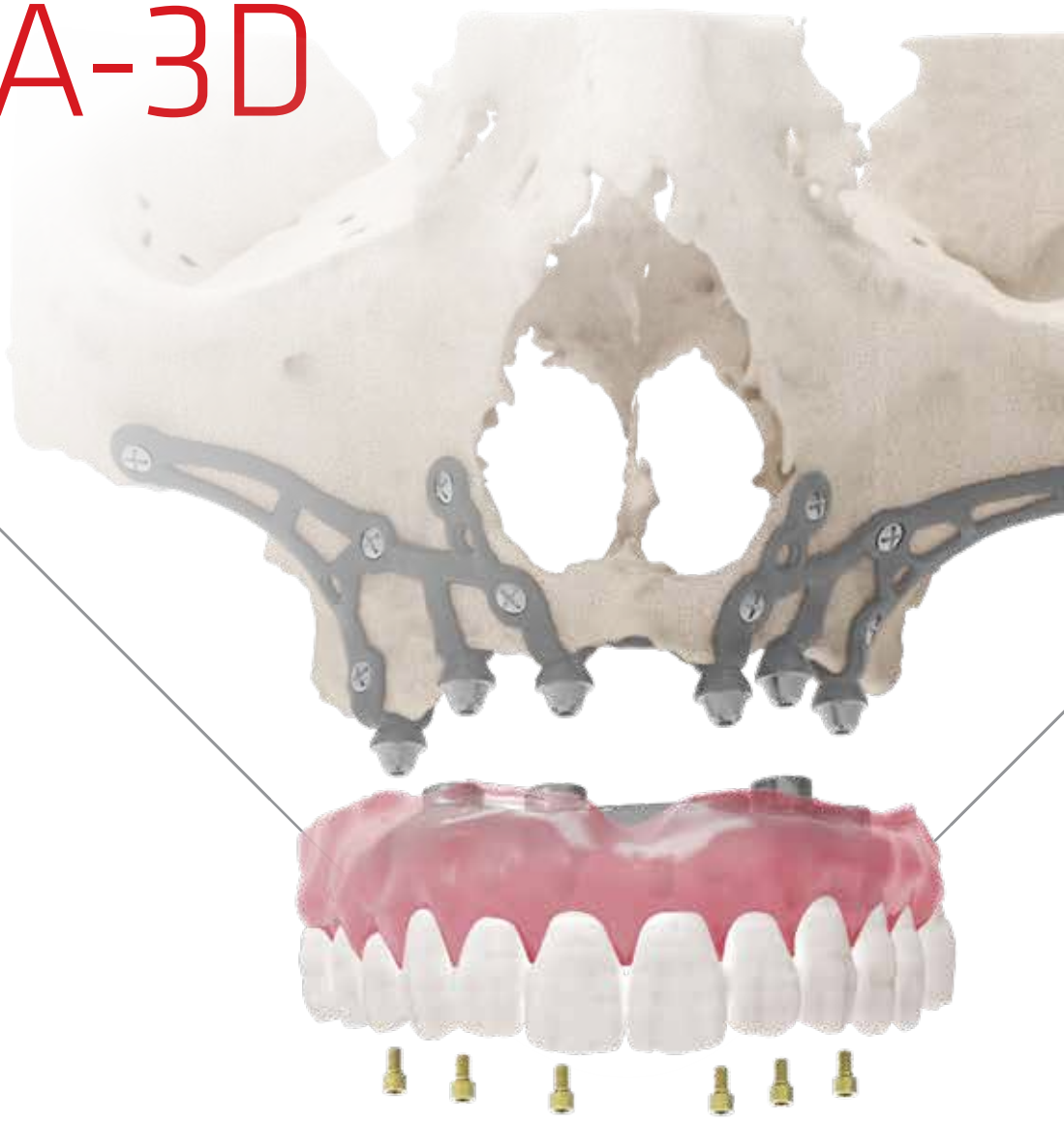
DIGITAL DENTISTRY
CUSTOM-MADE MEDICAL DEVICES

btk Implanting Trust, Smile Again!

3D PRINTED DENTAL IMPLANTS

IUXTA-3D



SCREW-RETAINED AND PRECISE: **THE BEST FOR YOUR PATIENTS**

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DIGITAL DENTISTRY
CUSTOM-MADE MEDICAL DEVICES

IUXTA-3D

Thanks to over 20 years of experience in dental implants, and with many documented clinical cases, we innovated IUXTA-3D subperiosteal implants: **from now on they are offered for screw-retained protocol, thus allowing to solve in a more accurate way the cases of severely atrophic maxillary ridges, by means of a fully digital and reliable protocol.**

A unique and fundamental innovation in the field of implantology that takes full advantage of the quality and precision of the digital methods to obtain a "tailor-made" solution for every patient and to improve the predictability of the rehabilitation.

It is possible to restore any kind of rehabilitations: from single elements to full arches

INNOVATIVE FEATURES OF IUXTA-3D:

- **SCREW-RETAINED PLATFORM ALSO FOR OVERDENTURE**
  To guarantee precision and easy maintenance.
- **IN TITANIUM FOR MEDICAL USE**
  To guarantee the highest standards of mechanical resistance.
- **COMPATIBILITY**
  With a wide range of prosthetic components for any kind of restoration.
- **DESIGN-SHAPED SCREW HOLES**
  To ensure the best fitting.
- **HIGH CONTACT SURFACE**
  Which reduces the risk of bone reabsorbtion due to a too high loading.
- **REPORT DEDICATED FOR EVERY CASE**
  With three-dimensional previews of the project and a detailed analysis of the implant in relation to critical anatomical structures.
- **100% DIGITAL WORKFLOW**
  Customized on each patient.
- **DEDICATED TECHNICAL ASSISTANCE**
  Dedicated report for each case from the planning to the surgery.

The IUXTA-3D implant is supplied with a 3D PRINTED RESIN REPLICA of the device itself. Additionally, the BONE MODEL of the patient is always manufactured, by means of 3D printing technology. Upon request, BTK Milling Center can also manufacture and deliver the temporary framework.

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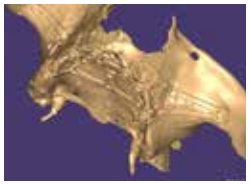
DIGITAL WORKFLOW
IUXTA-3D

CONE BEAM CT AND PRODUCTION OF A 3D VIRTUAL BONE MODEL

The process starts with the acquisition of the patient's tomographic imaging and of a DICOM file. During the examination, the patient must wear a dedicated radiological guide. The DICOM file is sent by the clinician to the BTK TEAM. The BTK TEAM checks the feasibility of the case and starts the design phase.

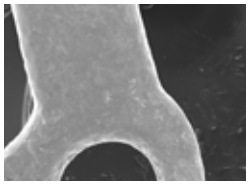
Immediate uploading of the DICOM file of the patient's tomography

http://upload.btk.dental/btk3d



DIGITAL PROCESSING OF THE IUXTA-3D STRUCTURE

IUXTA-3D is virtually modelled on the anatomy of the patient by the BTK specialists, using a dedicated CAD software.
The layout of the device is designed to bear the prosthetic load while guaranteeing the best passive fit. The final project is then shared with the Prescribing Doctor, who can make changes and who confirms it before production takes place.



TITANIUM LASER MELTING - 3D PRINTING

After receiving the doctor's prescription, BTK produces the device by means of "Selective Laser Melting" technique. Homogeneous layers of highly pure titanium powder are melted using a laser in a selective way, based on the 3D virtual model. The final object meets high purity and microstructural homogeneity standards that guarantee high mechanical performance, in response both to static and cyclic loading.

CLEANING, DECONTAMINATION, PACKAGING AND SHIPPING

The IUXTA-3D implant is decontaminated in an automatic ultrasonic machine, it is packaged in a cleanroom under controlled atmosphere and delivered ready for sterilization in the clinician's office. All BTK production cycles are controlled and registered so as to guarantee the traceability of the product, in compliance with the most restrictive standards in the Doctor's practice.

SURGERY AND SURGICAL APPLICATION

The surgery is performed under local anaesthesia or conscious sedation. At the end of surgery, the patient can receive a first provisional that will allow the perfect healing of soft tissues. You can ask BTK to make the provisional at the beginning of the production process.

BT SCREW SURGICAL KIT

Cortical screws kit for advanced surgery.

FOLLOW US ON

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BIBLIOGRAPHY

Cerea M: Una soluzione alternativa al rialzo di seno. Italian Dental Journal. Anno 6. nr. 3/2001; pp. 5-8.

Cerea M: Oltre il seno: l'impianto pterigoideo. Giornale dell'Odontoiatra.15/05/2011.n°6; pp. 7-8.

Cerea M, Olivetti F, Olivetti M: trattamento di grave atrofia mascellare con griglia e pterigo, www.Italian Dental Journal .it. Dental Academy.it

Virgilio F. Ferrario, Carlo Miani, Alberto Miani: Lineamenti di biomeccanica della masticazione nella pratica gnatologica. Milano: Edi.Ermes, 1988.

Raghoebar GM: 110th volume of Dutch Journal of Dentistry 4. Application of dental implants during the last decades: from subperiostal to transosteal and endosseus implants. Ned.Tijdschr.Tandheelked. 2003 Nov;110(11);422-9.

Weiss CM, Reynolds T: A collective conference on the utilization of subperiostal implants in implant dentistry. J.Oral Implantol.,2000;26(2):127-8.

E.Lloyd Dubrul. Anatomia orale di Sicher.Edizione Italiana a cura di A.Miani e V.F.ferrario. Milano EdiErmes 1988.

Schneider D, Marquardt P, Zwahlen M, Jung RE. A systematic review on the accuracy and the clinical outcome of computer-guided template-based implant dentistry. Clin. Oral Impl. Res. 20 (Suppl. 4), 2009; 73–86. doi: 10.1111/j.1600-0501.2009.01788.x

W. De Vos, J. Casselman, G. R. J. Swennen: Cone-beam computerized tomography (CBCT) imaging of the oral and maxillofacial region: A systematic review of the literature. Int. J. Oral Maxillofac. Surg. 2009; 38: 609–625.

Rafi, H., Karthik, N., Gong, H., Starr, T.L. and Stucker, B.E. "Microstructures and mechanical properties of Ti-6Al-4V parts fabricated by Selective Laser Melting and Electron Beam Melting". Journal of Materials Engineering and Performance, 2013, 1-12.

Vandenbroucke, B. and Kruth, J.P. "Selective Laser Melting of biocompatible metals for Rapid Manufacturing of medical parts". Rapid Prototyping Journal, 2007, 13.4: 196-203.

BTK PERSONAL TUTOR

A program for individual case planning and execution supported by experienced professionals in order to leverage know-how and maximize clinical experience with the aim to achieve sustainable high patient satisfaction rates.

BTK is always at your disposal for any request for further follow-up or information, promoting periodic and ad-hoc training course.

CERTIFIED QUALITY SYSTEM

BIOTEC is certified UNI EN ISO 9001 and UNI EN ISO 13485.

Custom-made device, in accordance with Directive 93/42/EEC and subsequent modifications and additions. The Company is registered at Italian Health Ministry Register, of custom-made medical device manufacturers. Some products may not be available for non-European countries, due to different current law.
Contact Biotec for more information and to know the availability in your Country.

MADE IN ITALY USED GLOBALLY

We constantly ensure that the quality of our products and services meet the high expectations of our customers and their patients.

Specialized professionals are taking care to offer comprehensive solutions in applied research, engineering, education and related activities.

btk the smile system®

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