# DIGITAL SURGERY PLANNING CUSTOM-MADE SOLUTIONS



Revision:1





#### CUSTOM-MADE SOLUTIONS FOR UPPER LIMBS TECHFIT

TECHFIT custom-made Reconstruction Solution for Upper Limbs system is intended for the correction of defects and the partial or total replacement of bone structures in the region of the upper extremities. They are manufactured according to requirements in:

Commercially pure titanium (CP Ti) (ASTM F67) Ti-6AI-4V ELI (ASTM F136)

UHMWPE (ASTM F2759)

Polyetheretherketone (PEEK) (ASTM F2026).

- Hand plate
- Hand prosthesis
- Radius and / or ulna plate
- Radius and / or ulna spacers
- Ulna plate
- Ulna prosthesis
- Ulna Spacers
- 3D Printed Surgical Guides biocompatible material

#### +200 CUSTOM-MADE ORTHOPEDIC CASES



\*Ask for the regulatory restrictions in your country





## Digital Surgery Planning Making custom the new standard

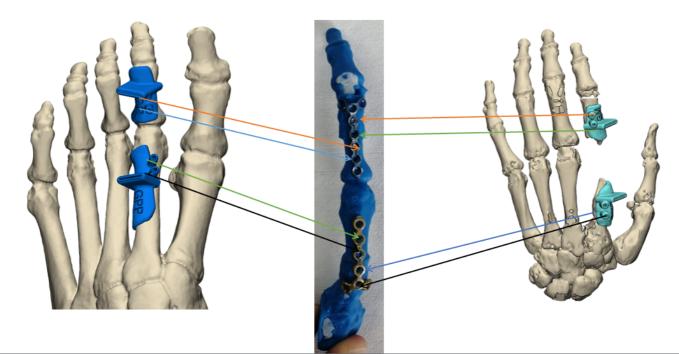
Digital surgical planning of bone replacement with bone allograft after trauma. 3D printed surgical guides and custom made fixation plates are designed and manufactured for the patient

Initial condition



"With a more detailed preoperative planning done on computer model and 3D printed model, one can mimic the surgical procedure before going the OR"

Surgical planning



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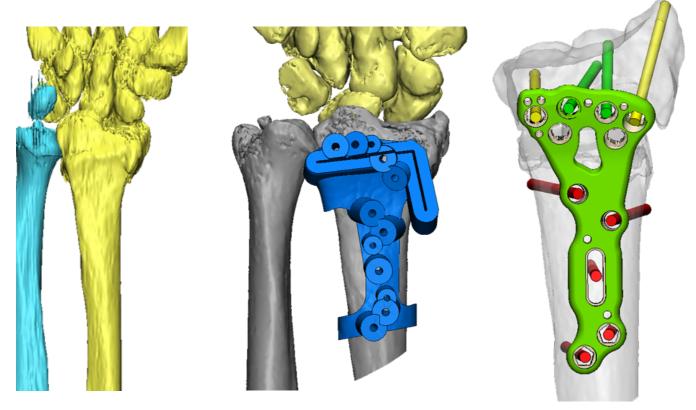
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## **Digital Surgery Planning** & Custom-made implant

Digital surgical planning and custom 3D-printed surgical guides for the radius.

Many reports have already described encouraging results from the use of customized 3Dprinted guides in corrective osteotomy of the radius "In distal and proximal radial regions, the accuracy of guides with lateral extension is higher than standard guides and is therefore recommended for future use".



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#### CUSTOM-MADE SOLUTIONS FOR LOWER LIMBS TECHFIT

TECHFIT custom-made Reconstruction Solution for lower limbs system is intended for the correction of defects and the partial or total replacement of bone structures in the region of the lower extremities. They are manufactured according to requirements in:

Commercially pure titanium (CP Ti) (ASTM F67)

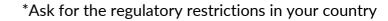
TI-6AI-4V ELI (ASTM F136) UHMWPE (ASTM F2759)

Polyetheretherketone (PEEK) (ASTM F2026).

+200 CUSTOM-MADE

**ORTHOPEDIC CASES** 

- 3D Printed Surgical Guides biocompatible material.
- Pelvis prosthesis
- Pelvis plate
- · Pelvis spacers
- Femoral plate
- Femoral nail
- Femoral spacers
- Femoral prosthesis
- Tibial plate
- Tibial nail
- Tibial prosthesis
- Foot plate
- Foot spacer
- Foot prosthesis



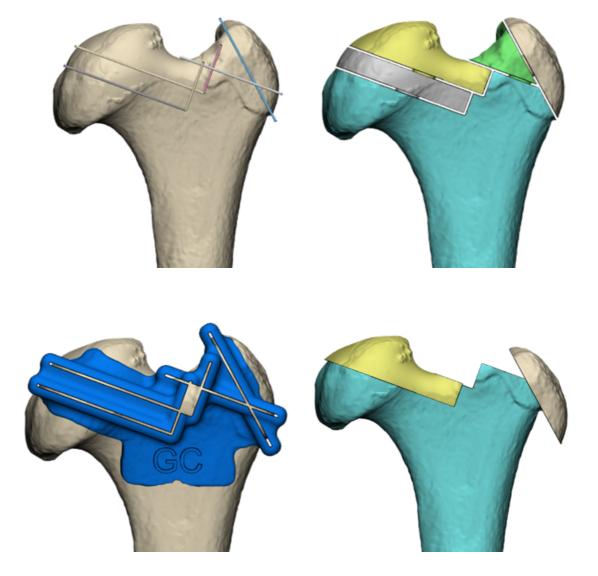
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## Digital Surgery Planning Biocompatible 3D Printed Surgical Guides

Preoperative planning of femoral head reduction osteotomy using 3D surgical planning and 3D printed surgical guides "With a more detailed preoperative planning done on computer model and 3D printed model, one can mimic the surgical procedure before going the OR"



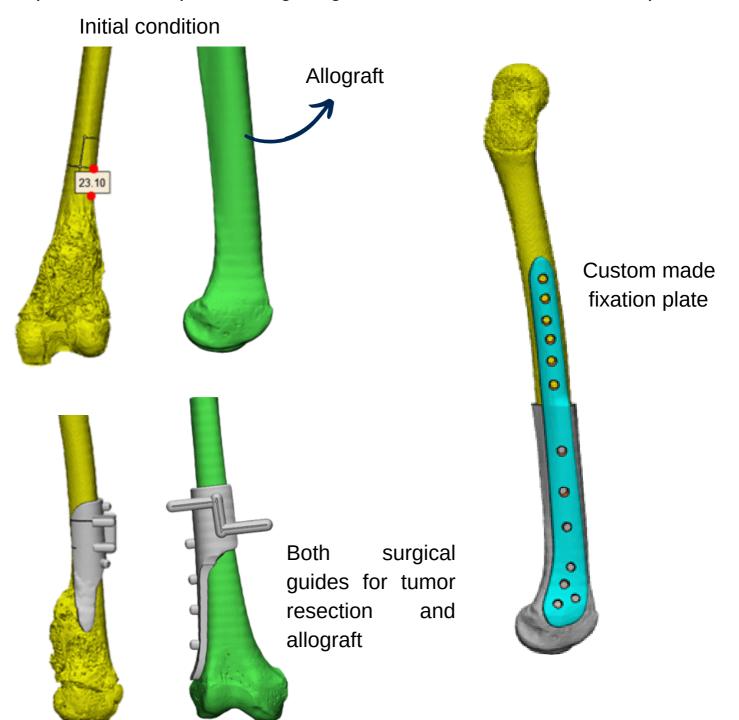
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## Digital Surgery Planning Bone grafts for bone defect repair

Digital surgical planning of tumor resection with bone allograft replacement. 3D printed surgical guides and custom made fixation plate

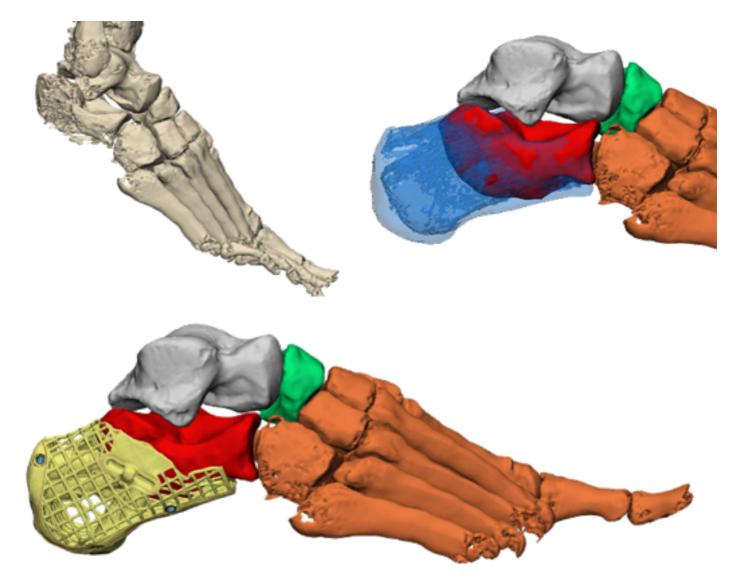


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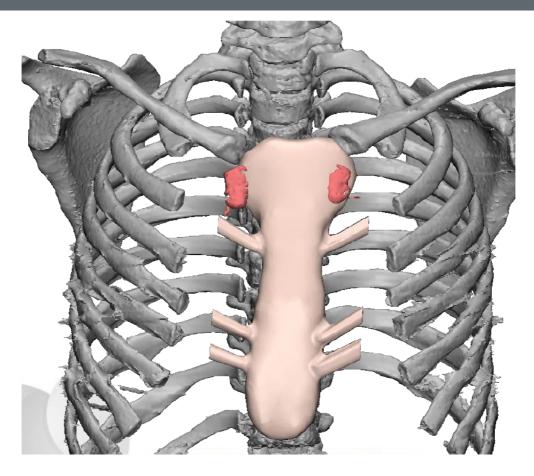
## Digital Surgery Planning Making custom the new standard

Digital surgical planning and custom-made implant of calcaneal bone replacement with 3D printed titanium implant with porous structure "With a more detailed preoperative planning done on computer model and 3D printed model, one can mimic the surgical procedure before going the OR"



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#### CUSTOM-MADE SOLUTIONS FOR STERNUM REPLACEMENT

TECHFIT custom-made guides for High resistance sternum is to mechanical stress, chemically inert, non carcinogenic, does not induce hypersensitivity, sterilizable bv autoclave, excellent cosmetic results, deformable, radiolucency properties similar to the bone, easy positioning and extraction, low necrosis risk, biocompatible

### operties with low density with sitioning hypersensitive and is risk, reactions

Custom-made

heart surgery

sternum

Indicated for trauma, oncology

PEEK implant offers high stability

cases and complications

#### +10 CUSTOM-MADE STERNUM REPLACEMENT CASES



is

after

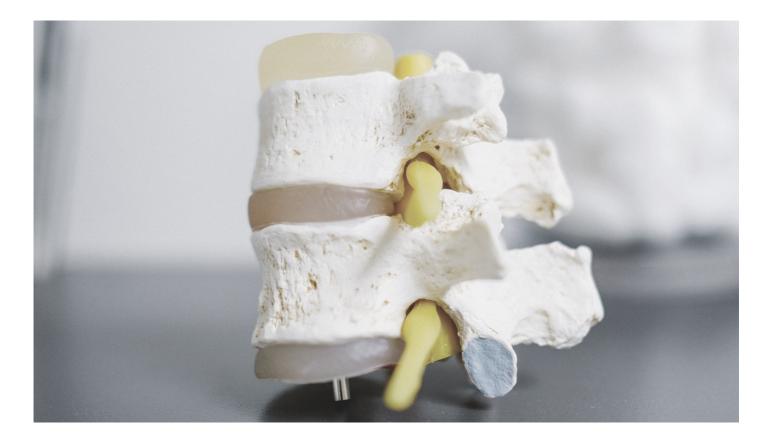
fewer

allergic

\*Ask for the regulatory restrictions in your country







#### CUSTOM-MADE SOLUTIONS FOR SPINAL FUSION TECHFIT

TECHFIT custom-made guides for spinal fusion are intended for the accurate placement of pedicle screws. They are crucial to ensure both rigid fixation of the spine and associated implants as well as minimizing the risk of neurological injuries.

Surgical guides are 3D Printed in a biocompatible material

3D-printed patient-specific guides have gained increased popularity, showing a misplacement rate of 2– 9% compared with the 40% rate of the traditional free-hand ) techniques

Additionally, they have the potential to offer a cost-effective alternative without increasing intrasurgical radiation exposure

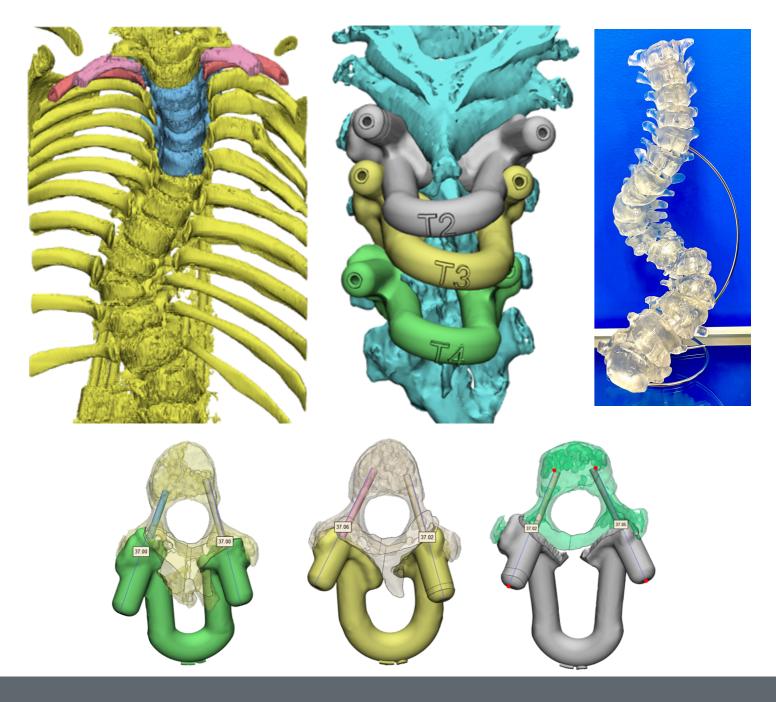


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## Patient-specific 3D-printed surgical guides for pedicle screw insertion

Digital surgical planning and custom-made surgical guides have demonstrated benefits in the accuracy and consistency of screw insertions in comparison to nonguided free-hand technique



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