



IPS Implants®

Preprosthetic





Oral and maxillofacial surgery is our passion! Its further development, together with our customers, is our ambition. Every day we work on developing innovative products and services which meet the highest demands on quality, and which contribute to the wellbeing of the patient.

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IPS Implants® Preprosthetic One Patient. One Solution.

The conventional dental implantology is a well-established possibility for dental rehabilitation if the individual bone and soft tissue are sufficient.

But conventional methods are limited in case of larger tissue loss or replacement. Right here the new possibilities of IPS Implants® Preprosthetic are an excellent enlargement to achieve instant functionally stable dental rehabilitation. The shape-free produced implant offers a high stability.

The comparative moderate treatment costs as well as the decreased treatment duration constitute an interesting therapy option for patients with challenging tissue situation.

Feature – Function – Benefit

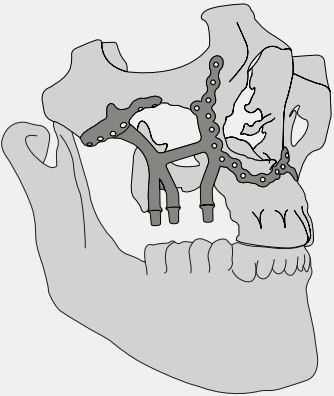
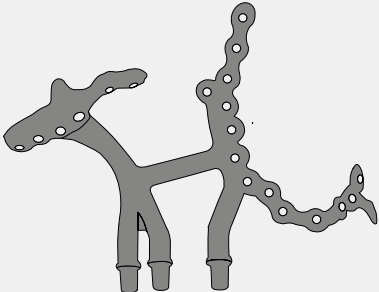
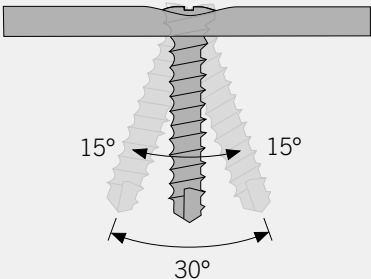


IPS Implants® Preprosthetic convinces by an easy and efficient process for individual patient solutions – from the planning up to the functionalized implant as a base for the complete dental rehabilitation.

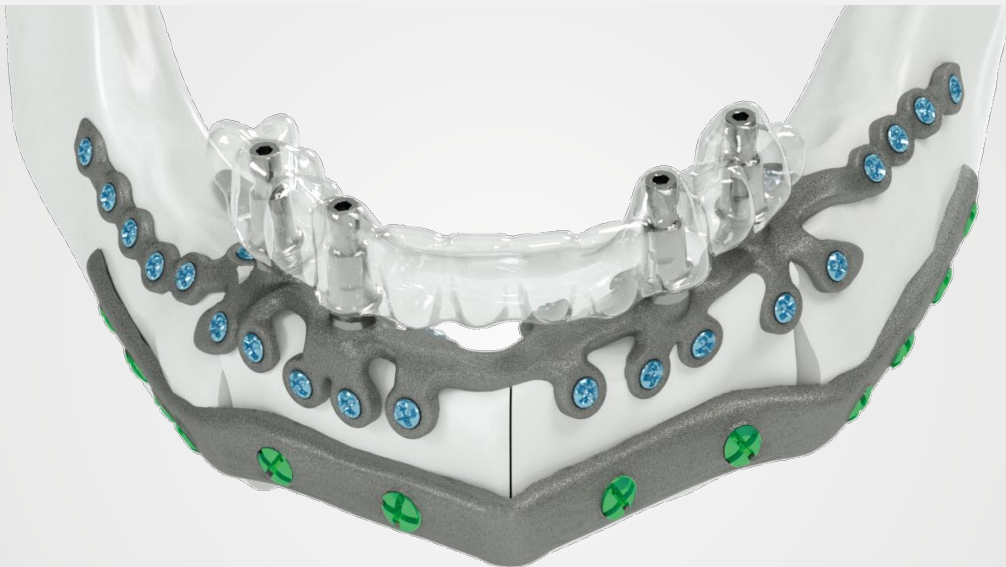
With the IPS Gate®, we provide a platform which guides surgeons and users reliably and efficiently through the process of inquiring about, planning, and completing patient-specific products. The intuitive concept offers the user maximum mobility, flexibility, and functionality.

Patient-specific implants, planning aids, and anatomical models are made from various materials using state-of-the-art fabrication technologies. Thanks to computer-based planning and functionalized patient-specific implants, preoperative planning can be implemented in surgery with unprecedented precision.

IPS Implants® Preprosthetic

	Features and Functions	Benefits
Planning process 	- Simple and efficient interaction with the user via IPS Gate® - Planning, fabrication, shipping and local support from a single source - Various planning possibilities - Specific predetermination of the screw holes and the screws to be inserted (Ø 1.5 mm and Ø 2.0 mm) - Preventive elements (e.g. vanishing metal structures) - Combination of patient-specific reconstruction implants with IPS Implants® Preprosthetic	- Maximum mobility, flexibility and functionality - Complete service, the requirement for coordinating multiple services eliminated - High degree of planning safety - Optimized „one-fit-only“ design - Holistic treatment concept
Implant 	- Production using the latest additive manufacturing technology - Manufactured as standard from high-strength Ti6Al4V titanium alloy - Implant based on the individual CT scan of the patient, already checked for perfect fit ex-work	- Large freedom of design for individual shaping of the scaffold structure and the posts even with challenging bone and soft tissue conditions - High implant stability - Best possible three-dimensional precision-fit - No sharp edges because cutting or bending is not needed
Implant anchoring 	- Possibility to fix the plate multi-vectorial with standard or locking osteosynthesis screws - Remote fixation of the soft tissue passage of the post	- Highest individuality and stability - Primarily functionally stable bony fixation - Rare mucosa inflammations at the posts don't have any direct effect on the fixation

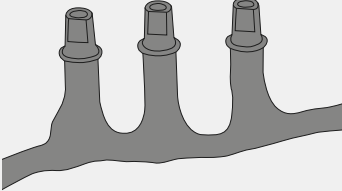
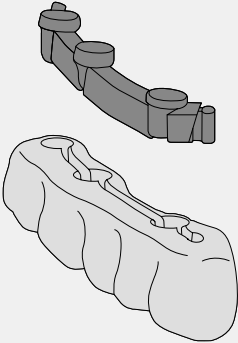
Feature – Function - Benefit



The resulting advantages of IPS Implants® Preprosthesis for the patient are a decreased strain by a reduction of surgical interventions compared to alternative treatments as well as a reduction of the rehabilitation and total treatment duration.

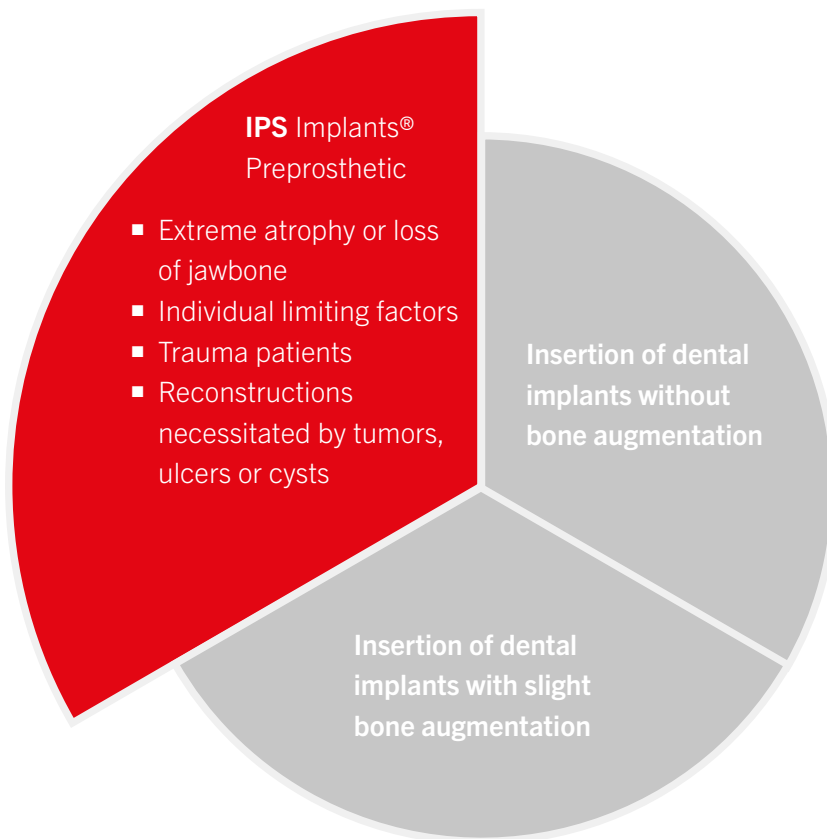
It is pleasant that with this new technique, developed in cooperation with the Medical School Hannover, an immediate functionally stable chewing capacity is possible and so the best possible aesthetic and functional outcome is achieved.

IPS Implants® Preprosthesis

	Features and Functions	Benefits
Implant posts 	■ Polished post surface ■ Post design including „universal abutment“ with thread drilling ■ Posts with flattened side	■ Simplified oral hygiene ■ Maintenance and revision optimized fixation of prosthetic components by a screw connection instead of common glued connections ■ Rotation stable treatment
Prosthetic 	■ Temporary denture can be fixed intraoperatively ■ Bar as a base for the temporary and final denture ■ The planning of the final denture is digitally or alternative conventionally possible.	■ Immediate post-operative aesthetic result ■ Immediate post-operative chewing capacity ■ Simplified oral hygiene by the removable denture with plug connection, also for the patient ■ Ideal planning conditions for the prosthodontist ■ Reduced time until the final denture is available ■ Holistic concept
Treatment 	■ Realizable IPS Implants® Preprosthesis treatment in 2-6 weeks	■ Time-saving and efficient patient treatment ■ Significant total cost saving

Step by Step to Optimal Fixation

Indications





Surgical Technique

Immediate dental rehabilitation with IPS Implants® Preprosthetic

Pages 12-15

Univ.-Prof. Dr. Dr. Nils-Claudius Gellrich
Dr. Björn Rahlf





Virtual planning

To create the case, the patient data and case-related information are uploaded to the web-based platform IPS Gate®.

The data is prepared by the IPS® developer for case planning on the basis of the user's requirements and information. An integrated chat function and web meetings are available for direct communication between the IPS® developer and user.

With the clinical specifications and requirements the number and position of the posts is defined. Subsequently, a patient specific optimized implant is generated.

In the end, the user approves the design for production.



Pre-surgical presentation

Initial situation after resection of a benign tumor and soft tissue reconstruction by a "M. latissimus dorsi" transplant.



Implantation preparation

The surgery situs in the right midface is opened intraorally. A remote fixation is even more important because of the missing right maxilla.

The soft tissue is dissected from the previously defined bony structures.



Implant fixation

The implant is inserted into the surgery situs and fits exactly and precisely due to the patient specific construction.

The IPS® scaffolding base is fixed functionally stable and multi-vectorial with standard (Ø 1.5 mm or Ø 2.0 mm) and/or locking screws (Ø 2.0 mm) depending on the planning.

Upon request and depending on the intraoperative conditions not every fixation possibility in the implant has to be used with a screw.



Post passage creation

Creation of the post passages through the soft tissue.
At the same time, the precise position can be relevant not to impair the anatomical entities.



Soft tissue situation

The rotation-stable telescopes of the posts may not be covered by soft tissue after wound closure.



Temporary denture fixation

Last, the temporary denture is fixed per post intraoperatively on IPS Implants® Preprosthesis with the supplied IPS® screw denture fixation.

Please pay attention of enough space between the soft tissue and the denture because pressure on the soft tissue can be created by postoperative tissue swelling.

Upon request the temporary denture can be created with or without occlusion contact.



Postoperative production and fixation of the final denture

After reduction of swelling the intraoral situation is taken by impression compound or an intraoral scanner and the screw-on bar and removable final denture is produced afterwards.

Case Studies

Treatment in one Quadrant



Treatment of the right maxilla after hemimaxillectomy with one IPS Implants® Preprosthesis without a bone transplant.



Treatment of the left maxilla with one IPS Implants® Preprosthesis without a bone transplant. By preceding reconstruction a fibula transplant and an IPS Implants® Mandible Reconstruction is in situ.



Treatment of the mandible with one IPS Implants® Preprosthesis after preceding mandible reconstruction left with a double barrel fibula transplant for bony restoration.

Case Studies

Treatment in two Quadrants

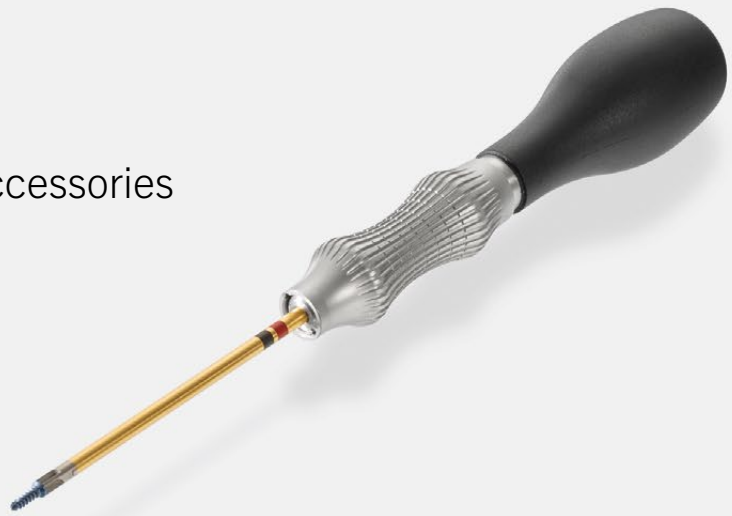


Treatment of an atrophic maxilla with two IPS Implants®
Preprosthesis without transplantation. Alternatively, a construction
with a connection bridge and consequently a one-piece implant
is possible.



Treatment of the mandible with one IPS Implants® Preprosthesis.
By preceding reconstruction a fibula transplant and an
IPS Implants® Mandible Reconstruction is in situ.

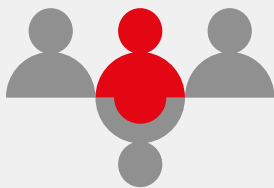
Osteosynthesis Accessories



For surgical treatment with IPS Implants® Preprosthetic the following osteosynthesis accessories are required:

- Sufficient number of KLS Martin osteosynthesis screws in the planned diameters and lengths.
- A screwdriver to fit the planned osteosynthesis screws.
- A twist drill suitable for the planned osteosynthesis screws.

The IPS® Product Family



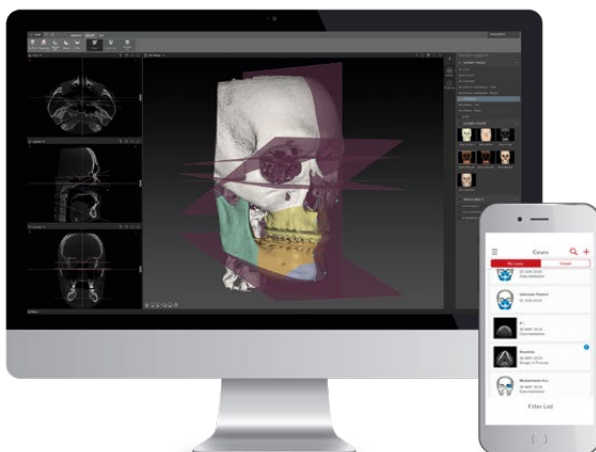
IPS Gate®

The web-based platform and app guide surgeons and users reliably and efficiently through the process of inquiring about, planning, and completing patient-specific products. With the HTTPS standard IPS Gate® guarantees encrypted data transmission, which is additionally certified by the TÜV Süd seal.



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