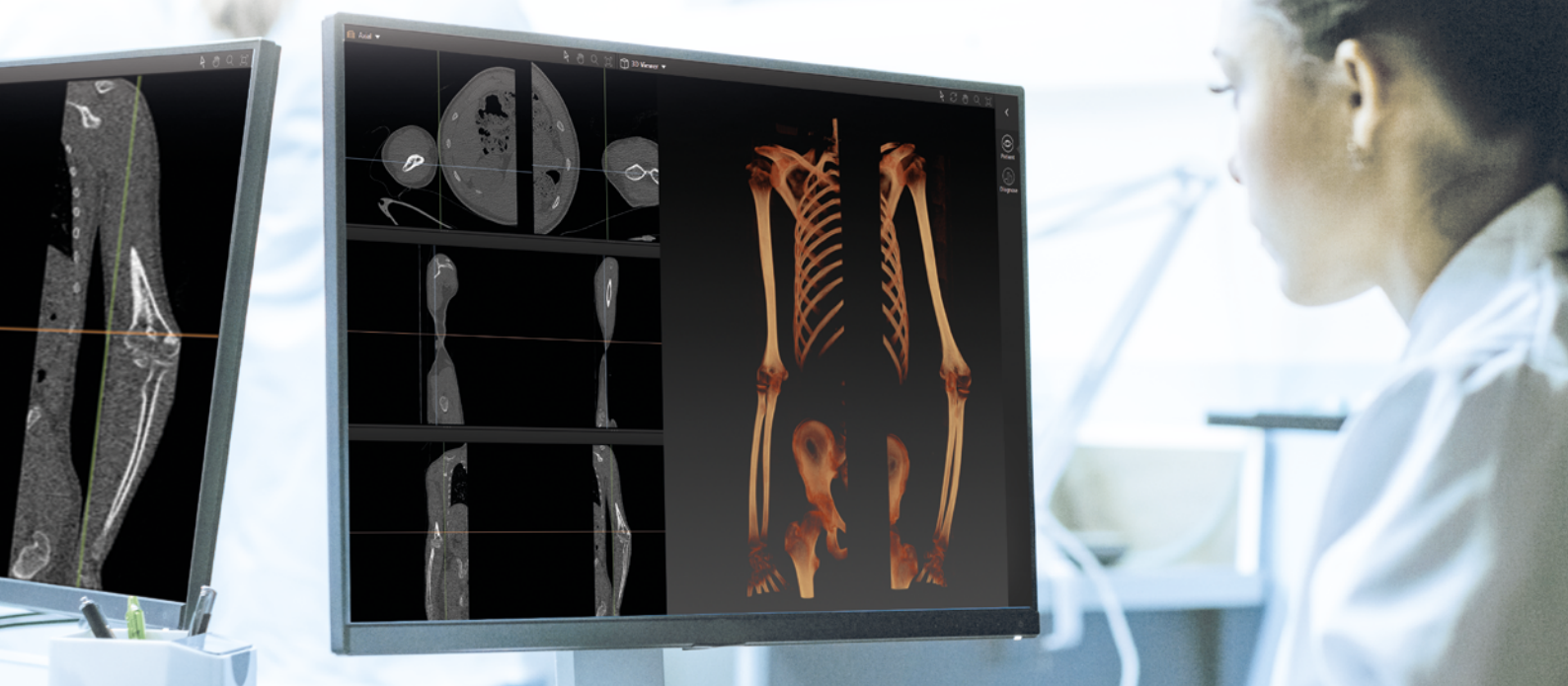




IPS Implants®

Scan protocol

Distal Humerus Reconstruction



IPS® – Individual Patient Solutions

IPS Implants® Distal Humerus Reconstruction

Scan protocol

Basic information

This scan protocol describes how patient data need to be prepared for virtual planning of distal humerus reconstructions so that a product of the “Individual Patient Solutions” product family can be made.

Deviations from these instructions may mean that the clinical results will not match the planned results.

KLS Martin can process data from all standard CT scanners and use almost all storage media.

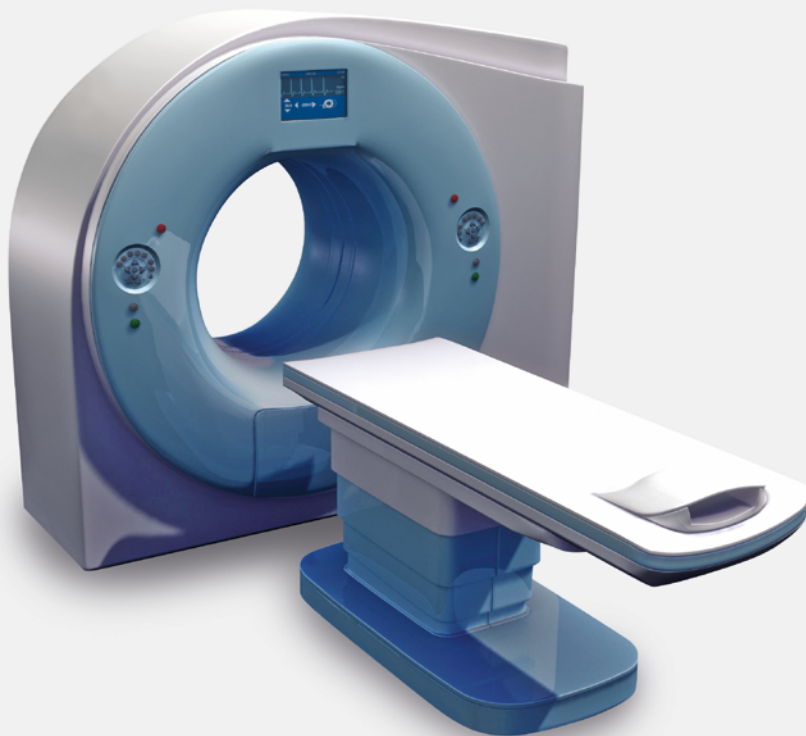
Should you have any queries, please do not hesitate to contact our **hotline +49 7463 838-222**.

Important:

Planning results are only ever as up to date as the clinical data records! If the anatomical situation should change after scanning, the precision fit of the products can no longer be guaranteed.



Scan unaffected upper arm
(right)



Scan affected upper arm
(left)

Scan both upper arms (affected and unaffected side)

- Patient scans must be current and precise (< **four months**).
- The spatial resolution of the scans should be between **0.5 - 1.25 mm**.
- The **axial sections** are required.
- Movements of the patient during the actual scanning have to be avoided coercively.
- **Classical CT scans** are preferred.
- For classical CT scans, the **Gantry inclination must be 0°**.
- A scan of the affected and unaffected upper arm is required. The scans must be performed in a neutral position. Both arms must be in the same position.
- The image section should include the complete humerus. The ideal image section covers the complete humerus down to the proximal area of the forearm (proximal one-third of radius and ulna).
- Save the entire scan including all sub-data in DICOM format (without integration into a display software).

IPS Implants® Distal Humerus Reconstruction

In some cases, malunions can occur following distal humerus fracture treatments. This can lead to reduced strength, pain and decreased mobility. Similar limitations can also be seen in congenital malposition cases.

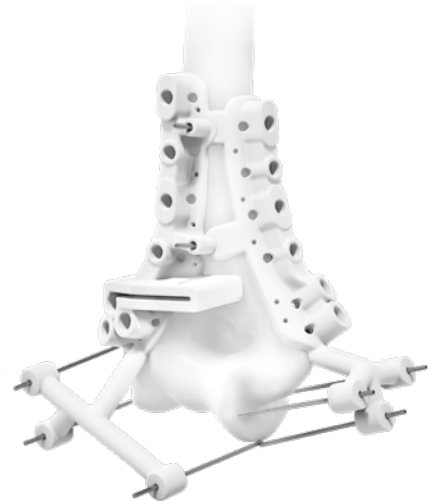
KLS Martin offers comprehensive custom-made solutions for distal humerus reconstructions, featuring individualized implants together with matching drill and marking guides. Especially for complex cases the custom-made distal humerus reconstruction can be a solution.

Anatomical models

Anatomical models visualize the osseous situation and accuracy of fit of the implants.

Drill and marking guides

Drilling and marking guides are used to predrill the planned screw holes and mark the osteotomy line at the previously planned position.



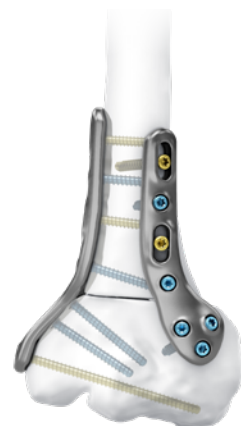
Implants

The custom-made implants are manufactured additively from titanium.

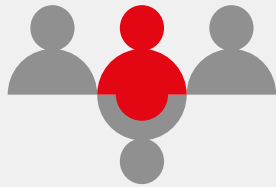
This innovative manufacturing technology (AMTi) enables complete freedom of design of the material and its surface.

IPS Implants® for the distal humerus reconstruction are fixed with our proven smartDrive® and ContourDrive standard and/or locking screws of the Recos® and Fos 2 systems.

Application requires only few instruments.



The IPS® product range



IPS Implants® I Distal Humerus Reconstruction

The IPS Implants® Distal Humerus Reconstruction solution enables the user to address complex surgical procedures through a user-friendly individualized approach. CT-based planning and a 3D-printed implant allow the user to achieve the planned post-op result with a very stable construct.

KLS Martin offers custom-made solutions for the distal humerus reconstruction procedure. Creating surgical plans with matching custom-made guides is an option. Additionally, custom-made implants achieved through additive manufacturing are also available for complex procedures.

IPS Implants® for the distal humerus reconstruction are fixed with our proven smartDrive® and ContourDrive standard and/or locking screws of the Recos® and Fos 2 systems.

Instrumentation is limited to the essentials.



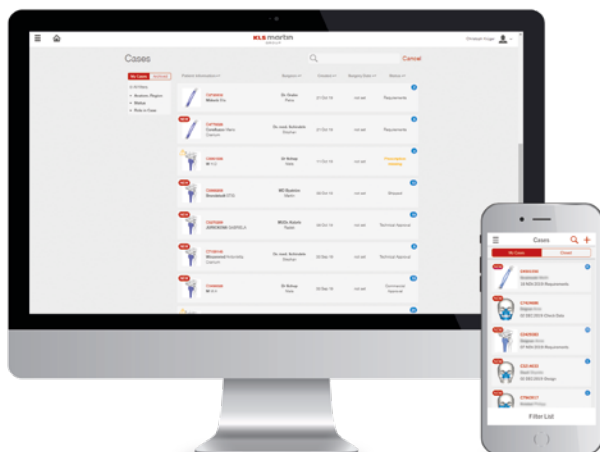
IPS Gate®

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.



IPS Implants®

Custom-made 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 custom-made implants, preoperative planning can be implemented in surgery with very high precision.



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