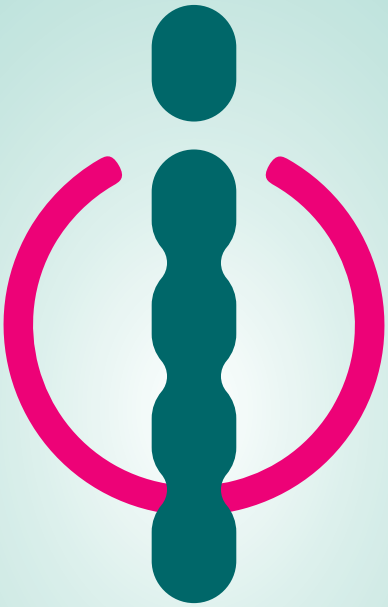

intercus

# Surgical technique

## Arthrodeses of the upper ankle and subtalar joint with the TALARLOCK/PANTALARLOCK

Chapter Page



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Large fragment
for screws Ø 5.5 mm / Ø 6.5 mm
polyaxial locking plate

# TALARLOCK/PANTALARLOCK

Polyaxial locking plates for arthrodeses of the upper ankle and subtalar joint from posterolateral

## Material

| | | |
|---|---|---|
| Plates | titanium | ISO 5832-2 |
| Screws | Ti6Al4V | ISO 5832-3 |

## Indications

| | |
|---|---|
| TALARLOCK: | Arthrodeses of the upper ankle joint |
| PANTALARLOCK: | Upper ankle and subtalar joint arthrodeses, for a combined fusion of the upper ankle and subtalar joint |

## Contraindications

Contraindications exist in the case of acute infections that could hinder the healing process due to the implants used, far-advanced osteoporosis, severe circulatory disorders and known allergies to surgical implant materials. There are restrictions with patients with open growth plates and the possibility of conservative treatment methods. The surgeon must provide clarification of the risks; it is his responsibility to do so.

The patient who receives this implant must be advised by the surgeon that the safety and lifespan of the implant are dependent on the following factors and risks:

- Previous infections
- Overweight of the patient
- Extreme stress to be expected due to work and sport
- Falling sickness or other reasons for repeated accidents with increased risk of fracture
- Significant osteoporosis or osteomalacia
- Weakening of the supporting structures due to tumours
- Allergies to material components of the implants

## Characteristics

» From a surgical perspective, the plate allows for an easy posterolateral approach to the upper ankle joint and subtalar joint without affecting any major anatomical structures, less impairment of wound-healing

» Both joints can be approached via one incision, no alteration of plantar soft tissue

» Optimum control of the axial heel when the patient is in a prone position with a possible extension in terms of posterior preparation

» Excellent compression of the arthrodesis space thanks to traction screws, optimum fixation by means of locking screws in the tibia, talus and calcaneus

## Your advantages of polyaxiality

» Anatomically pre-formed plate design for best fit on bone

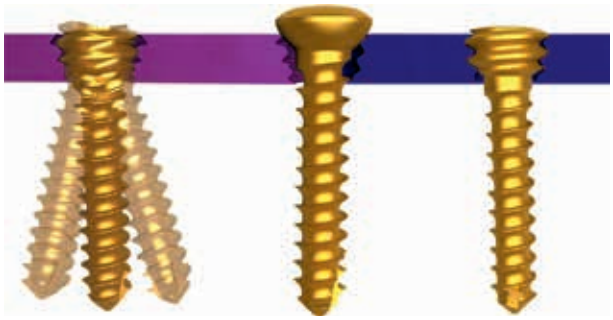
» Variable and secure fusion of plate and screw through patented thread

» No cold-welded implants

» Combi hole for optional use of standard and locking screws

» Protection of the surrounding tissue through innovative surgical approaches

» Early, active mobilization with stable fixation



polyaxial standard mono-axial

## Indications and product overview

| Name and Code N° (e.g. picture) | Plates | INDICATIONS | Arthrodeses of the upper ankle joint | Upper ankle and subtalar joint arthrodeses, for a combined fusion of the upper ankle and subtalar joint | PLATE INFORMATION | Plate thickness | Length - minimum | Length - maximum | polyaxial | Screw | 750.3550xx - Cortical screw, conical head thread, mono-track | 750.3560xx - Cancellous screw, conical head thread, mono-track | 750.3870xx - Cancellous screw, 32 mm thread, standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Screw diameter | | | | | | | | | | | 5,5 | 5,5 | 6,5 |
| Head diameter | | | | | | | | | | | 8,0 | 8,0 | 8,0 |
| | | | | | | in mm | in mm | in mm | | |  |  |  |
| TALARLOCK locking plate, polyaxial, large fragment, mono-track Fig.: 750.597634 |  | | x | - | | 4,0 | 95 | 170 | x | | x | x | x |
| PANTALARLOCK locking plate, polyaxial, large fragment, mono-track Fig.: 750.597734 |  | | - | x | | 4,0 | 114 | 207 | x | | x | x | x |

Please refer to the catalogue for product details such as order numbers, sizes and dimensions.

## Doctor Responsible for the plate design

Dr. med. Vásárhelyi, Clinic Linde Biel, Switzerland

## Medical author of the surgical technique

Dr. med. Vásárhelyi, Clinic Linde Biel, Switzerland

This surgical technique is based on the author's many years of experience as a surgeon. Its content was carefully considered and tested by the author. However, it cannot take all of the specifics of the individual case into account and is therefore only a recommendation. All information in this surgical technique is provided without guarantee by the author. The author assumes no liability for damages of any kind.

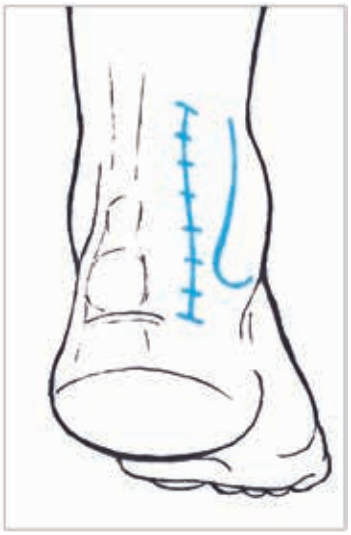
## Reference hospitals

Clinic Linde Biel, Switzerland
Städtisches Klinikum München, Clinic in Munich Harlaching
Berufsgenossenschaftliche Unfallklinik Murnau
Ortopedkliniken Södra Älvsborg Hospital, Borås, Sweden
Martin Luther University of Halle-Wittenberg
Ev. Diakonissenkrankenhaus Leipzig
Mediclin Waldkrankenhaus Bad Düben
Kantonsspital St. Gallen, Switzerland

# PLATE OSTEOSYNTHESIS

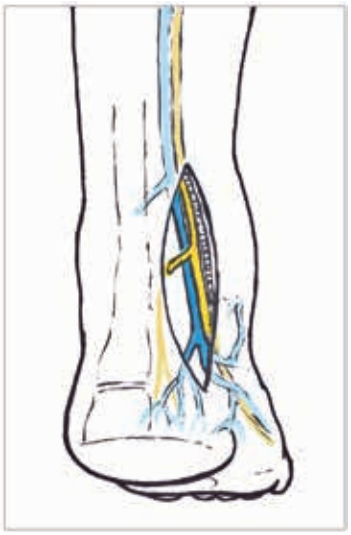
## Patient Positioning

Prone position



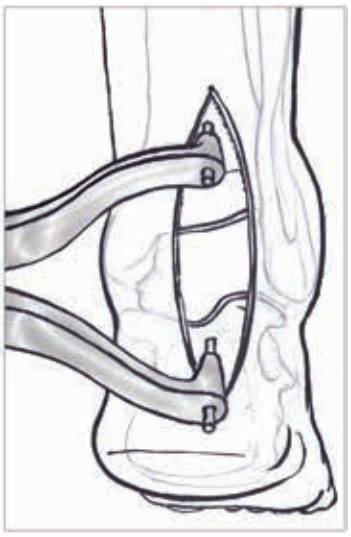
## Posterolateral Approach

Make a central incision between the posterior edge of the fibular malleolus and the lateral Achilles tendon edge.



Cave: sural nerve and small saphenous vein must be spared. Preparation of subcutis, longitudinal splits of the fascia. Cave: medial protection of the tendon of flexor hallucis longus. Insertion of a large blunt retractor with joint. Removal of cartilage in upper ankle joint together with removal of osteophytes.

Elongation of upper ankle joint and subsequently subtalar with Hintermann spacer. Complete cartilage removal with chisel/Luer/sharp curette/ball reamer. Multiple subchondral drilling with drill Ø 1.5 mm is recommended. Set the correct axis, fill bone defects with autologous/allogeneic cancellous bone.



## PANTALARLOCK Plate Position

It is possible to fasten the plate to the tibia shaft deploying K-wires Ø 1.8 mm (750.614318).

To ensure an optimum placement, the use of an image intensifier is recommended.

The screw-to-plate locking is carried out tightening one screw after the other, starting from the tibia down to the calcaneus.

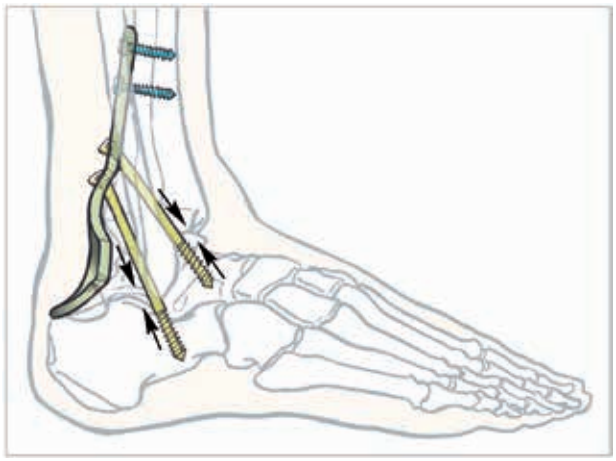
1. To fasten the plate, insert the two tibial angle-stable cortical screws Ø 5.5 mm. Drill the guide hole with an angle-stable drill sleeve (750.104510) using a drill Ø 4.0 mm (750.111126). Measure for screw length with measuring device (750.105013).

2. Whilst under image intensifier, place the traction screws (cancellous bone) Ø 6.5 mm from lateral angle. Drill the guide hole using a drill Ø 3,2 mm (750.111105). Measure for screw length with measuring device (750.105013). Drill out the through hole by approximately two thirds of the screw length using drill Ø 4.5 mm (750.111106).

   Position of talar screw tip: in the center of talar neck

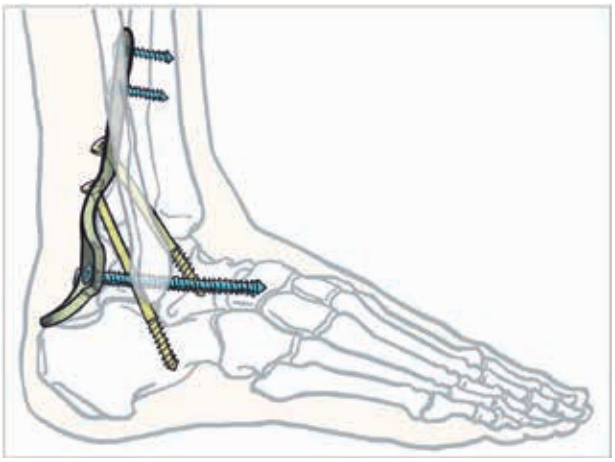
   Position of calcaneal screw tip: centrally in the anterior process.

   Compression of arthrodesis spaces.



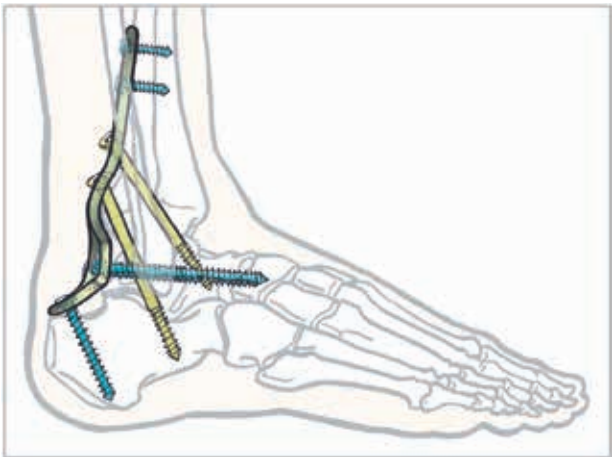
3. Insert the two talar angle-stable cortical screws Ø 5.5 mm. Continuous monitoring with image intensifier. Drill the guide hole with angle-stable drill sleeve (750.104510) using a drill Ø 4.0 mm (750.111126). Measure for screw length with measuring device (750.105013).

   Position: anterior neck of the talus, centrally in os naviculare when talonavicular arthrodesis is desired (after cartilage removal).

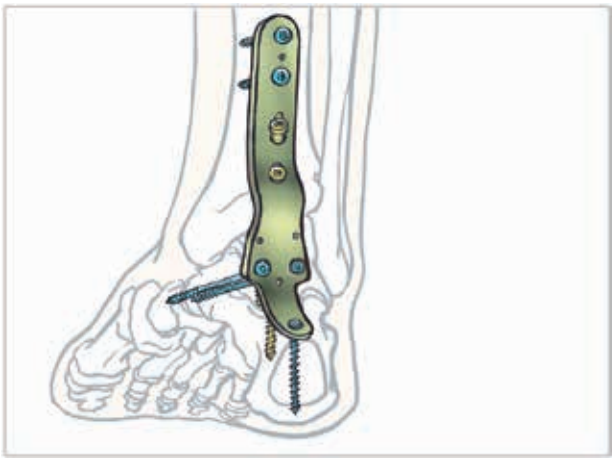


4. Insert calcaneal angle-stable cancellous bone screws Ø 5.5 mm. Drill the core hole with angle-stable drill sleeve (750.104511) using a drill Ø 3.2 mm (750.111105). Measure for screw length with measuring device (750.105013).

   Position: near plantar cortex.



Correct final outcome.

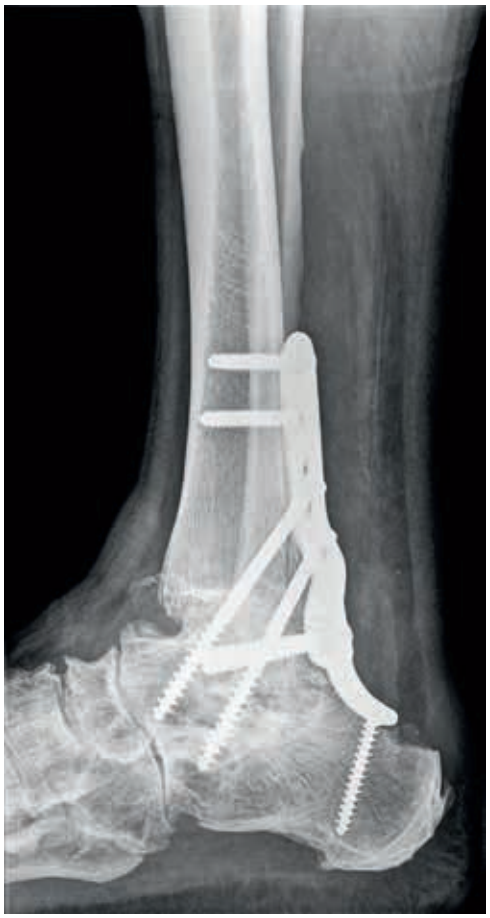


## Post-treatment plan and case example TALARLOCK/PANTALARLOCK

### WITHOUT BONE TRANSPLANT

In the case of good bony tissue (bone stock) WITHOUT bone transplant:

- VACOPED for 6 weeks after the operation
- Full weight bearing after secured wound healing (TALARLOCK)
- Tread mat walking on 2 forearm crutches for 6 weeks on a post-operative basis in the VACOPED (PANTALARLOCK)
- Mobilisation of the tarsal/MTP joints from VACOPED from the 3rd post-operative week
- X-ray check on the 2nd day after the operation, 4, 8 and 12 weeks post-operation



PANTALARLOCK - standard

TALARLOCK - long plate

## WITH BONE TRANSPLANT

In the case of bone defect (bone stock) WITH bone transplant, or in the case of osteoporosis:

» VACOPED for 6 - 8 weeks after the operation
» Tread mat walking on 2 forearm crutches for 6-8 weeks on a post-operative basis
» Mobilisation of the tarsal/MTP joints from VACOPED from the 3rd post-operative week
» X-ray check on the 2nd day after the operation, 4, 8 and 12 weeks post-operation

TALARLOCK - with bone transplant

## Instruments for explantation

| | Screw | 750.3550xx - Cortical screw, conical head thread, mono-track | 750.3560xx - Cancellous screw, conical head thread, mono-track | 750.3870xx - Cancellous screw, 32 mm thread, standard |
|---|---|---|---|---|
| Screw diameter | | 5,5 | 5,5 | 6,5 |
| Head diameter | | 8,0 | 8,0 | 8,0 |
| Hexagon socket | | 3,5 | 3,5 | 3,5 |
| Screw driver | |  |  |  |
|  750.102002 Hexagon screw driver, for screws Ø 4.5 mm, Ø 5.5 mm, Ø 6.5 mm, with handle | | x | x | x |

## Existing systems

| | |
|---|---|
| SYSTEM 11.975 | Upper ankle and subtalar joint arthrodeses plate system TALARLOCK/PANTALARLOCK", polyaxial, ti. |

## General information

When using all our products, please follow the Instructions for the use of medical devices made by INTERCUS GmbH. This is available on our website www.intercus.de or can be requested from us in paper form.

## Personal notes

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