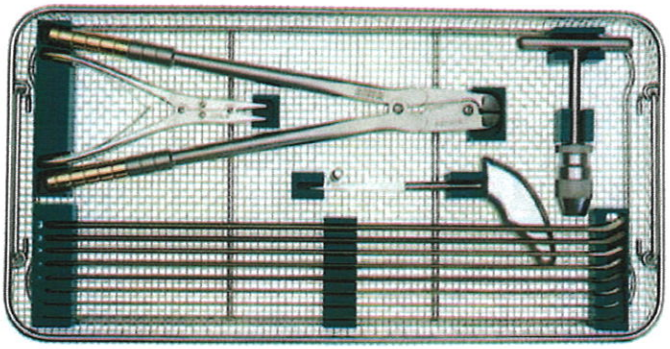
Gliding nails; set no. 19.290.10



19.290.10
Gliding nails

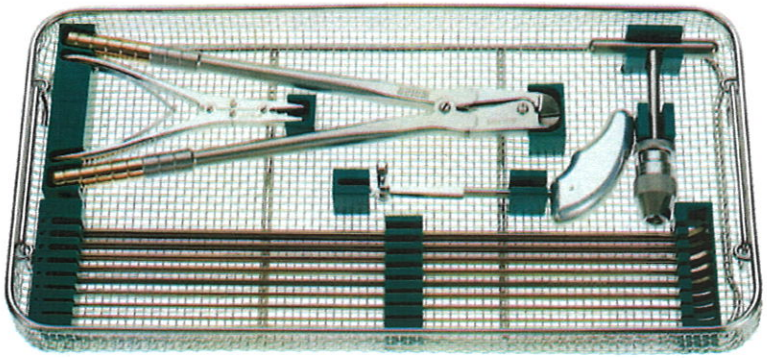
Item no.	Designation	Quantity	Figure
Implants - Nails			
Gliding nail; titanium 4 poz. Titaninės elastinės vinys			
7.281.15	Gliding nail; Ø 1.5 mm x 450 mm	2	
7.281.20	Gliding nail; Ø 2.0 mm x 450 mm	2	
7.281.25	Gliding nail; Ø 2.5 mm x 450 mm	2	
7.281.30	Gliding nail; Ø 3.0 mm x 450 mm	2	
7.281.32	Gliding nail; Ø 3.2 mm x 450 mm	2	
7.281.40	Gliding nail; Ø 4.0 mm x 450 mm	2	
7.281.45	Gliding nail; Ø 4.5 mm x 450 mm	2	
7.281.50	Gliding nail; Ø 5.0 mm x 450 mm	2	
Instruments			
10.421.01	Extraction forceps for wires; flat	1	
10.509.00	Awl; Ø 8.0 mm	1	
6.903.02	Insertion instrument with quick-action chuck; cannulated, inner diameter 5.2 mm	1	
6.906.03	Power cutter for wires to maximum Ø 3.0 mm (steel) and to maximum Ø 4.0 mm (titanium)	1	
Container			
19.291.00	Perforated autoclave container with insert for instruments and gliding nails	1	

OP-Set gliding nails, length 450 mm

4. pozicija, pagaminta iš titano

titanium, Set-No. 19.290.10

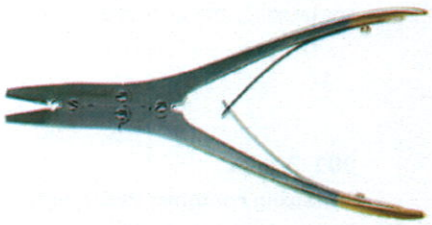
Vinies proksimalinis galas be angų, distalinis galas plokščias ir lenktas



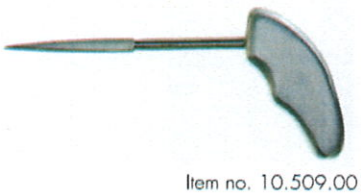
Item description	Item no.	quantity
Implants - nails		
Gliding nails; length 450 mm; titanium — 4 pozicija		
diameter 1.5 mm	7.281.15	2
diameter 2.0 mm	7.281.20	2
diameter 2.5 mm	7.281.25	2
diameter 3.2 mm	7.281.32	2
diameter 3.5 mm	7.281.35	2
diameter 4.0 mm	7.281.40	2
diameter 4.5 mm	7.281.45	2
diameter 5.0 mm	7.281.50	2
Instruments		
impactor with quick-action chuck; cannulated; inside diameter 5.2 mm	6.903.02	1
power cutter for wires to maximum Ø 3.0 mm (stainless steel) and Ø 4.0 mm (titanium)	6.906.03	1
extraction forceps for wires; flat	10.421.01	1
awl; Ø 8.0 mm	10.509.00	1
Container		
perforated autoclavable container with inset for instruments and gliding nails	19.291.00	1

Depiction of the instruments in set

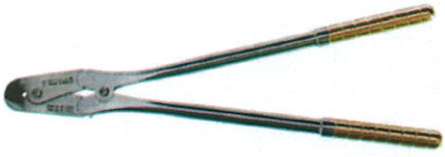
Item no. 6.903.02



Item no. 10.421.01



Item no. 10.509.00



Item no. 6.906.03

Königsee Implantate

Königsee Implantate GmbH
OT Aschau | Am Sand 4
07426 Allendorf | Germany
Fon + 49 36738 498-0
Fax + 49 36738 498-559
E-Mail: export@koenigsee-implantate.de

03/09/2014/KaMo

For further information please visit:
www.koenigsee-implantate.de

Advantages of treatment with gliding nails

- The gliding nails enable rapid healing while maintaining the full scope of movement and function.
- Specially suitable for children because the application prevents growth impairments.
- Optimal stabilisation of the fracture via three-point support of the nail in the bone.
- Early functional post-operative measures are possible.
- Simple, minimally invasive implantation.
- Good cosmetic result.
- Intervention away from the fracture.

4 poz. Naudojimas: Ilgųjų kaulų diafizės, metafizės ir epimetafizės lūžių gydymui

Indications and contraindications

Indications

Long bone fractures for which three-point support is possible.

In children:

- Diaphyseal fractures of longer long bones
- Select metapyseal and epimetaphyseal fractures of long bones
- Complex fractures of the clavicle

In adults:

- Diaphyseal fractures of long bones of the upper extremities
- Clavicle shaft fractures

Contraindications

- Disorders of vascularisation, which can lead to bone necrosis or infections of the surrounding soft tissues and an impaired healing process after the operation.
- Extensive soft tissue injury in the area for surgery.
- Inflammation in the area for surgery.
- Poor patient compliance.
- Allergies to the implant material.
- Implants made of implant steel or chrome-cobalt alloy or titanium already present in the vicinity of the area for treatment that are not compatible with the implant material to be inserted.
- The diameter of the medullary cavity is too low to permit insertion of a gliding nail.
- Unstable fractures for which no sufficient cortical support is possible.
- Joint fractures that should be treated open.
- The implantation is not recommended for overweight children with BMI >30.

3

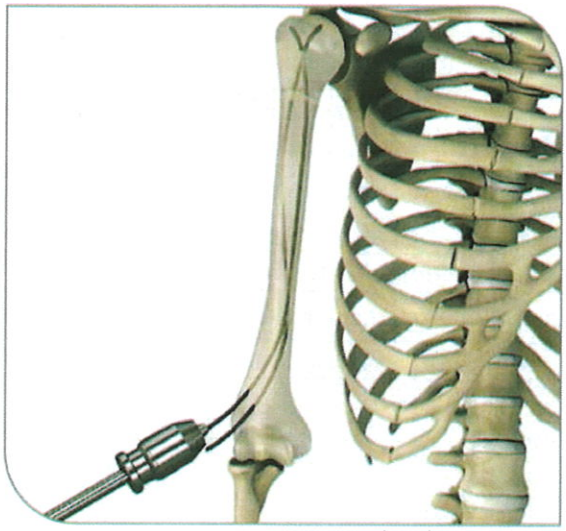
Table of contents

4 poz. Naudojimo instrukcijos: proksimalinio žastikaulio, žastikaulio diafizė, distalinio žastikaulio, dilbio kaulų, proksimalinio, distalinio šlaunikaulio, šlaunikaulio diafizės, blauzdikaulio kaulų, raktikaulio sintezei

4

Implantation of the nails

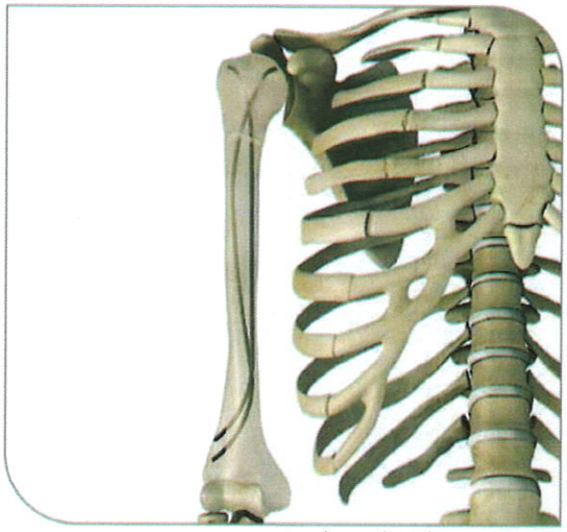
- Radiological check of the correct position of the humeral head relative to the shaft.
- The nail is finally anchored in the proximal epiphysis. The runners must be oriented divergently.



Positioned nails Fig. 8

- It must be ensured that the full range of motion of the humerus is restored.
- The nails are shortened with the power cutter (item no. 6.906.03 or 6.906.06 for the respective nail diameter) so that the ends lie deep within the subcutaneous tissue.

4 poz. Elastinės vinys, esant poreikiui, patrumpinamos, naudojant vielų kirpimo žnyples (priklausomai nuo vinies skersmens).



Implanted nails Fig. 9

Conclusion and wound closure

- X-ray documentation
- Flushing of the surgical area
- Insertion of a Redon drain, if necessary
- Wound closure in layers
- Application of a sterile bandage

PROXIMAL HUMERUS AND HUMERUS SHAFT FRACTURES

Surgical instructions

Preliminary considerations

- Gliding nails are used for proximal humerus fractures and humerus shaft fractures in both children and adults. The depicted operative technique is the same.
- Fractures on the proximal humerus or the humerus diaphysis are generally treated with double nail osteosynthesis.
- The nail insertion is retrograde anterolateral.

Positioning

- The operation is carried out in the supine position.
- The fractured humerus is laid on an arm table; the shoulder and elbow must be freely accessible.

Access and reduction

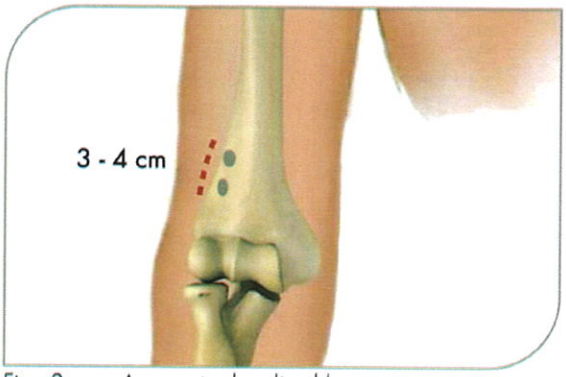


Fig. 3 Access to the distal humerus

- A closed reduction is performed first.
- Access takes place at the anterolateral (radial) aspect of the distal humerus, approximately 1 cm above the lateral epicondyle, proximally over a length of 3 to 4 cm.

Note Medial access should be avoided in order to avoid injury of the ulnar nerve.

DISTAL HUMERUS FRACTURES

Surgical instructions

Preliminary considerations

- Gliding nails are used for distal humerus fractures in both children and adults. The depicted operative technique is the same.
- Fractures on the distal humerus or supracondylar humerus fractures are generally treated with a double nail osteosynthesis.
- The nail insertion is antegrade lateral.

Positioning

- The operation is carried out in the supine position.
- The fractured humerus is laid on an arm table; the shoulder and elbow must be freely accessible.

Access and reduction

- A closed reduction is performed first.
- The access takes place laterally at the height of the caudal end of the deltoid muscle distally over a length of 3 to 4 cm.

Note The incision may not be made too far distally to avoid injuring the radial nerve.

7

FOREARM SHAFT FRACTURES

Surgical instructions

Preliminary considerations

- Gliding nails are used for forearm fractures in both children and adults. The depicted operative technique is the same.
- Forearm fractures are generally treated with one nail per bone.
- The nails are implanted in opposing directions (radius ascending, ulna descending) or both ascending.
- Isolated fractures of ulna or radius are treated with a single nail in the corresponding bone.

Attention The nail diameter to be selected is generally approximately 60% of the medullary cavity, measured at the narrowest point.

Positioning

- The operation is carried out in the supine position.
- The fractured forearm is laid on an arm table.

Access and reduction

- A closed reduction is performed first.
- Access at the distal radius:
  - Incision approximately 1 - 2 cm proximal of the radius epiphyseal plate.
  - At the height of the dorsal tubercle of radius, a 2 - 3 cm long transversal or longitudinal skin incision is made.
- Access at the proximal ulna:
  - At the height of the proximal lateral aspect of the olecranon, a 1.5 - 2 cm long transversal incision is made 3 cm distal of the apophysis.

Note Care must be taken to spare the radial nerve during access at the distal radius.

8

PROXIMAL FEMORAL AND FEMORAL SHAFT FRACTURES

Surgical instructions

Preliminary considerations

- Use of the gliding nails for proximal femoral fractures or fractures of the femoral diaphysis in children generally consists of a double nail osteosynthesis.
- The insertion for both nails is retrograde.

Positioning

- The operation is carried out in the supine position.
- Use of a fracture table, if necessary.

Access and reduction

- A closed reduction is performed first.
- Access takes place symmetrically on both sides (medial and lateral) at the distal femur at the height of the proximal patella pole (above the epiphyseal plate) proximally over a length of 2 to 3 cm.

Insertion of the nails

- Opening of the cortical bone according to the previously described procedure with the awl (item no. 10.509.00) with a perforation (2 - 3 cm proximal of the superior patella pole) at the cranial end of the incision.
- Prebend the nails according to the previously described procedure to achieve optimal three-point support with two C-shaped nails.
- The nails clamped into the insertion instrument (item no. 6.903.02) are inserted one after the other and driven proximally up to the fracture zone.
- The nails clamped into the insertion instrument (item no. 6.903.02) are inserted one after the other and driven proximally up to the fracture zone.

DISTAL FEMORAL FRACTURES

Surgical instructions

Preliminary considerations

- Use of the gliding nails for distal femoral fractures in children generally consists of a double nail osteosynthesis.
- The insertion for both nails is antegrade.

Positioning

- The operation is carried out in the supine position.
- Use of a fracture table, if necessary.

Access and reduction

- A closed reduction is performed first.
- The access takes place laterally below the trochanter major over a distal length of 3 - 5 cm.

10

TIBIA AND LOWER LEG FRACTURES

Surgical instructions

Preliminary considerations

- Use of the gliding nails for isolated tibia shaft or lower leg fractures in children generally consists of a double nail osteosynthesis.
- The insertion for both nails is antegrade.

Positioning

- The operation is carried out in the supine position.
- Use of a fracture table, if necessary.
- The knee should be bent with a support.

Access and reduction

- A closed reduction is performed first.
- The access takes place symmetrically on both sides (medial and lateral) at the proximal tibia at the height of the tuberosity distally over a length of 2 cm.

Insertion of the nails

- Opening of the cortical bone according to the previously described procedure with the awl (item no. 10.509.00) with two symmetrical perforations at the caudal end of the incision.
- Prebend the nails according to the previously described procedure to achieve optimal three-point support with two C-shaped nails.

E. Guided Growth System (Plus)

1

2

3

4

5

5. pozicija

1
T80212 Guided Growth Plate System Plus TI eight-Plate L 12mm

2
T80216 Guided Growth Plate System Plus TI eight-Plate L 16mm

3
T80220 Guided Growth Plate System Plus TI eight-Plate L 20mm

4
T80416 Guided Growth Plate System Plus TI quad-Plate L 16mm

5
T80422 Guided Growth Plate System Plus TI quad-Plate L 22mm

Note: All the Plates are also available packaged sterile. They can be ordered using the above code numbers preceded by 99- (e.g. 99-T80212).

See Operative Technique EP-1701-OPT "Guided Growth System Plus"

CE 0123

Manufactured by:
ORTHOFIX Srl
Via Delle Nazioni 9, 37012 Bussolengo (Verona), Italy
Telephone +39 045 6719000, Fax +39 045 6719380

IF-E-Eight-PlatePLUS-E0 B 06/18

1. Screws

1

Guided Growth Plate System Plus TI Solid Screw Ø3.5	
Length (mm)	Code
12	T80312
14	T80314
16	T80316

2

Guided Growth Plate System Plus TI Solid Screw Ø4.5	
Length (mm)	Code
24	T80024
32	T80032
36	T80036

2

Guided Growth Plate System Plus TI Cannulated Screw Ø4.5	
Length (mm)	Code
16	T80116
24	T80124
32	T80132
36	T80136

5 pozicija: 4,5 mm kaniuliuoti sraigtai

1
Ø3.5 Solid Screw eight-Plate Plus Color Coded - Yellow

2
Ø4.5 Solid Screw eight-Plate Plus Color Coded - Blue

3
Ø4.5 Cannulated Screw eight-Plate Plus Color Coded - Green

Note: All the Screws are also available packaged sterile. They can be ordered using the above code numbers preceded by 99- (e.g. 99-T80312).

Features and benefits

- Dedicated for redirecting the growth of long bones in growing children
- Color coded plates and screws
- Sterile and non-sterile implants
- eight-Plate (for two screws placement) and quad-Plate (for four screws placement)
- Unique screw hole design for a screw angulation up to 60 degrees

5 pozicija. Aštuoniukės tipo plokštelė, skirta ilgųjų kaulų augimo linijos stabdymui

Aštuoniukės tipo plokštelė, fiksuojama dvejais sraigtais

Benefits to Surgeons

- Plates sizes: 12, 16 and 20mm
- Cannulated and solid screw options
- Titanium alloy implants
- Optimized and lean instrumentation
- Central "dome" designed to aid application and removal across the growth plate

5 pozicija

Plokštelė pagaminta iš titano lydinio, Plokštelės centre - viena anga, skirta nukreipiklio fiksacijai

Benefits to Patients

- Minimally invasive
- Early weight bearing as tolerated by the patient and under surgeon discretion
- Titanium alloy implants to avoid allergic reaction to nickel
- Low profile plates