

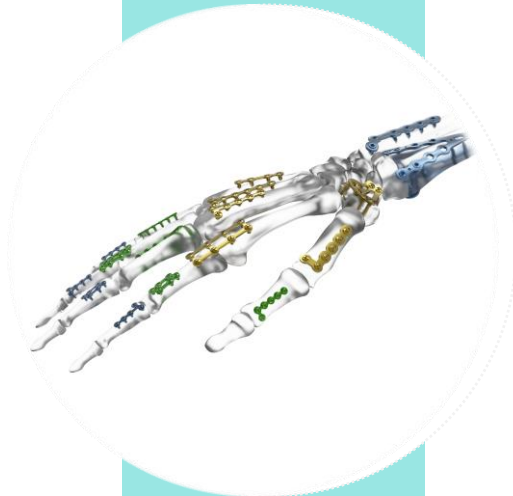
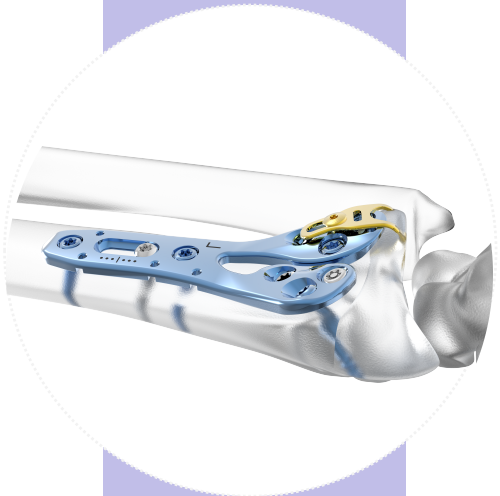
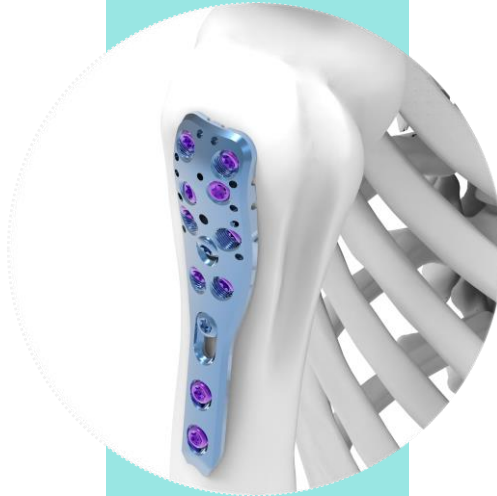
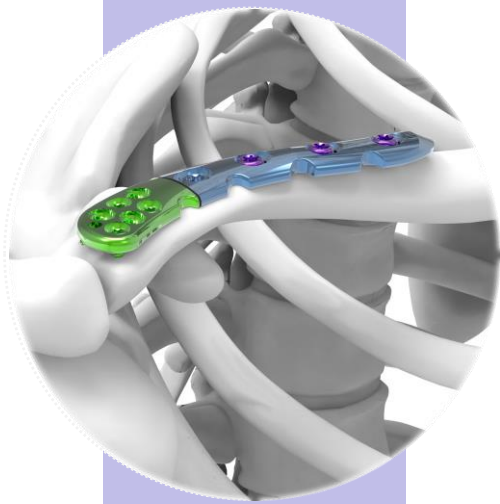


# Astrolabe

LIFE AND MOBILITY

## Applications Catalog

Trauma & Extremities



# Applications Catalog

## Trauma & Extremities

The purpose of this catalog is to present the main solutions for the orthopedic treatment of Trauma and Extremities regarding the full range of the Astrolabe products with the addition of the respective indications for use. The catalog is divided according to the musculoskeletal system regions such as: Upper Limb, Lower Limb, Upper and Lower extremities. Therefore, we are representing these same divisions respectively with the application of the product lines: **MultiFix**, **SmartFix**, **LIVTrauma** and **AstroCAN**.

We emphasize that the products in this catalog are not limited to these applications only. These are some of the indications for frequent use.

It's important to reinforce that the proper surgical procedures and techniques are the responsibility of the medical professional. The following guidelines are furnished for information purposes only. Each surgeon must evaluate the appropriateness of the procedures based on his or her personal medical training and experience. For additional information, contact the Astrolabe authorized distributor in your region or through our customer service channels

Customer Service  
 (+351) 219 672 298

[info@astrolabe-medical.com](mailto:info@astrolabe-medical.com)

Check out all the products on the website:

[www.astrolabe-medical.com](http://www.astrolabe-medical.com)



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# AstroCAN



**AstroCAN** is the Astrolabe cannulated screw family for small and large bone fixation. Main features:

- Titanium alloy;
- Screw diameters from 2.5 to 7.0mm;
- Self tapping design;
- Headed and Headless screws options;
- Low profile head for reduction of soft tissue damage;
- Reverse cutting flutes;
- Driving torx screws;

# LIV trauma

**LIV trauma** is Astrolabe's Most comprehensive locking plate system for fixation of small and large bone fractures, in different types of indications and applications. The system has combi-holes in the body of the plates, which allows the insertion of cortical screws or locking screws in the same hole as well as transverse cancellous screws. The LIV system has an exclusive feature of 54% increase in material (titanium) in the region between holes, providing greater resistance to the implants. Main features:

- Combi-holes locking-system;
- Rounded plate edges, for minimal irritation of the soft tissues;
- Straight plates and anatomic design options;
- Left and Right plate options;
- Pure titanium for plates;
- Titanium alloy for screws;
- Self-tapping screws;
- Driving torx screws;
- External guides for minimally invasive surgical technique for femur and tibia plates;



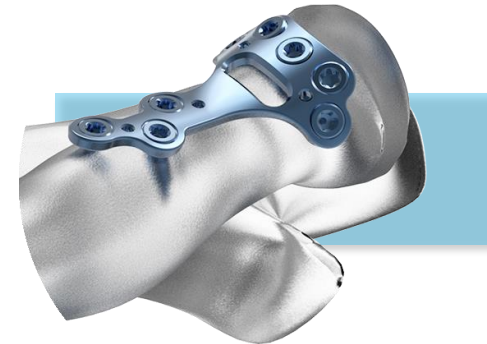
# MultiFix

The **MultiFix** locking plate system is Astrolabe's range of axially stable locking plates for extremities bones and a variety of anatomic region. Containing as integrated parts of the **MultiFix** family :

- **Hallux**
- **LapidoFix**

And which main features are:

- Fixed angle locking system;
- Low profile plates;
- Anatomic design;
- Pure titanium for plates;
- Titanium alloy for screws;
- Self tapping screws;
- Rounded plate edges, for minimal irritation of the soft tissues;
- Cross-drive screws for the 1.2, 1.7 and 2.3mm systems;
- Torx screws for the 2.0, 2.4, 2.7 and 3.5mm systems.



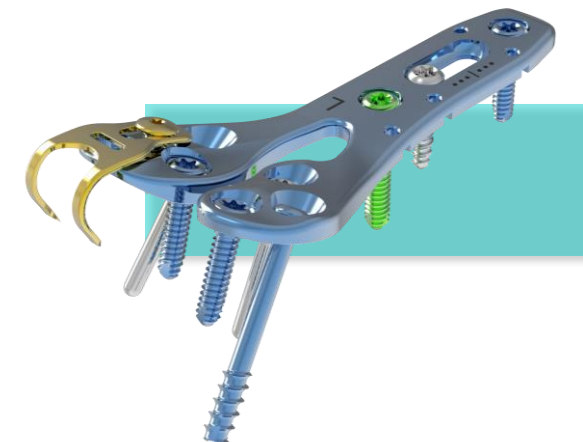
# SmartFix

The **SmartFix** locking plate system is the new Astrolabe family of plates that feature variable angle locking technology, which makes it possible to target locking screws according to a specific need or fracture pattern. Containing as integrated parts of the **SmartFix** family:

- **Volar-e**
- **Üthos**

And which main features are:

- Variable angle locking;
- Low profile plates;
- Anatomic design;
- Left and Right plate options;
- Titanium for plates;
- Titanium alloy for screws;
- Self tapping screws;
- Rounded plate edges, for minimal irritation of the soft tissues;
- Driving torx screws;



Applications

Shoulder

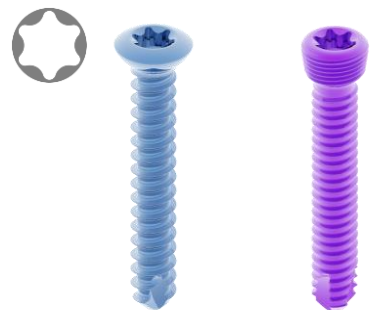
Proximal Humerus Plate 3,5 mm

**LIV trauma**



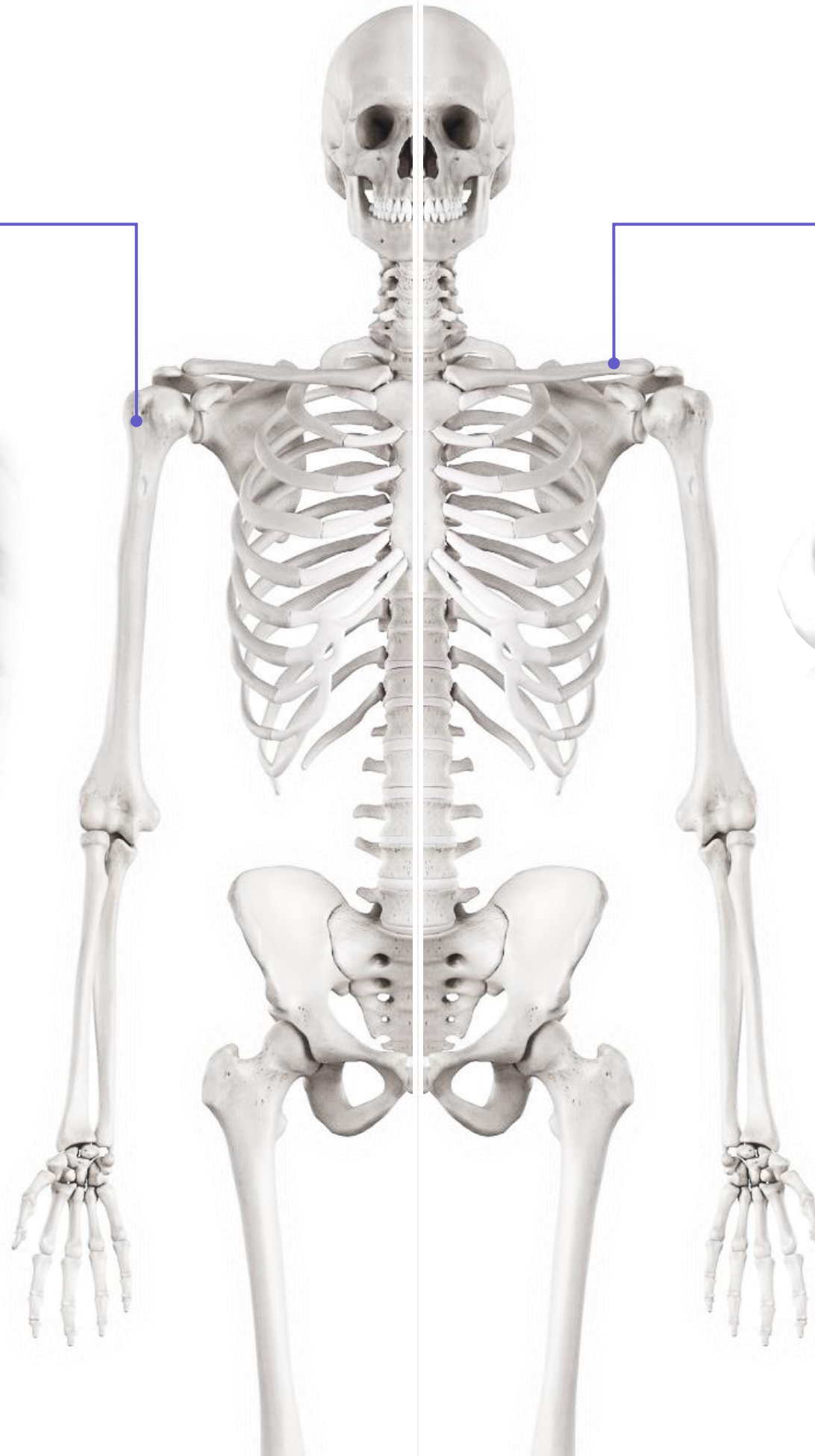
Proximal Humerus Plate  
Small Fragments Ø3,5 mm

Short & Long Plates



Ø 3,5      Ø3,5

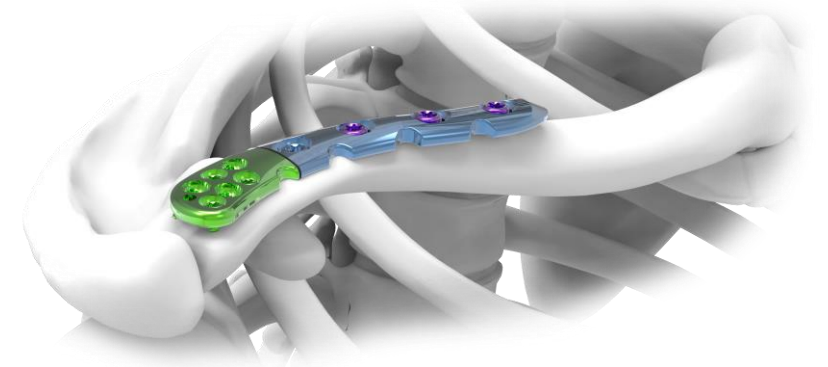
Cortical and Locking Screws



Clavicle Plates 2,7/3,5 mm

**LIV trauma**

Clavicle Superior Lateral Plate  
Small Fragments Ø2,7/3,5mm



Clavicle Anterior Superior Plate  
Small Fragments 3,5mm



Ø 2,4    Ø3,5  
Cortical Screws

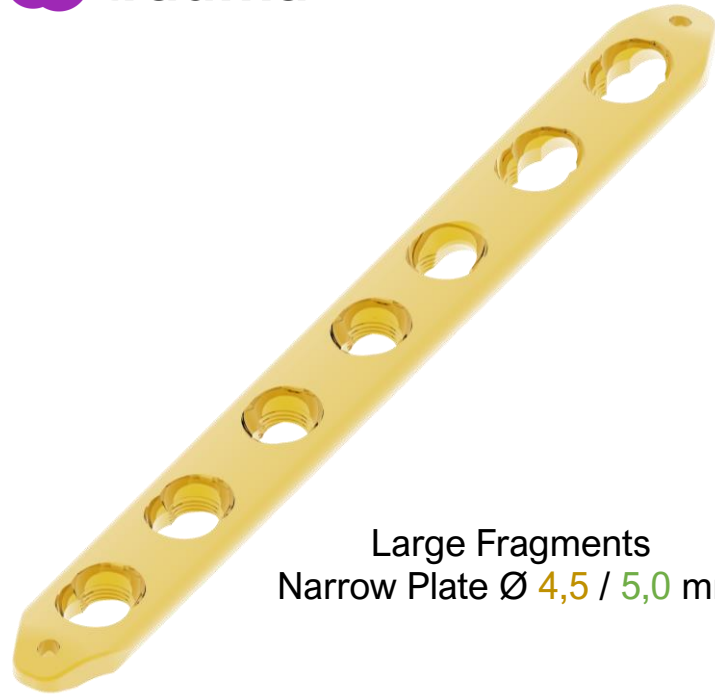
Ø 2,7    Ø3,5  
Locking Screws

**Applications**

**Arm / Forearm**

Narrow Plate 5,0 mm

**LIV trauma**



Large Fragments  
Narrow Plate Ø 4,5 / 5,0 mm

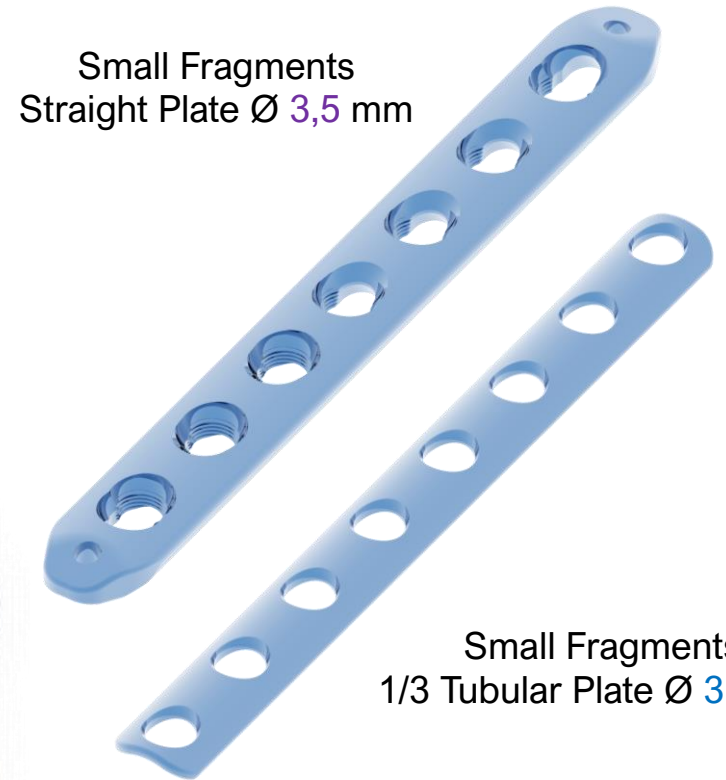


Ø 4,5    Ø 5,0  
Cortical and Locking Screws



Straight Plate 3,5 mm  
1/3 Tubular Plate 3,5 mm

**LIV trauma**



Small Fragments  
Straight Plate Ø 3,5 mm

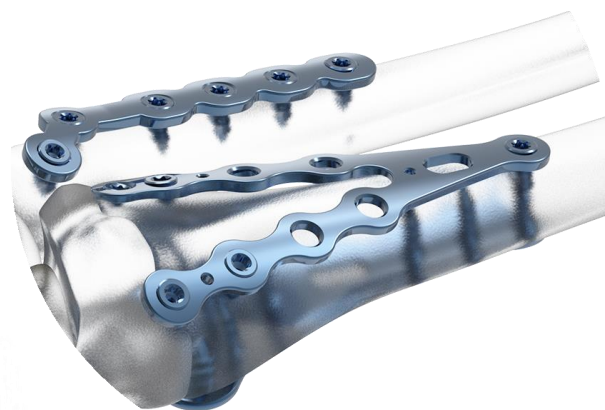
Small Fragments  
1/3 Tubular Plate Ø 3,5 mm



Ø 3,5    Ø 3,5  
Cortical and Locking Screws

Applications

Elbow / Wrist



Small Plates  
SMA Ø 2,7 mm

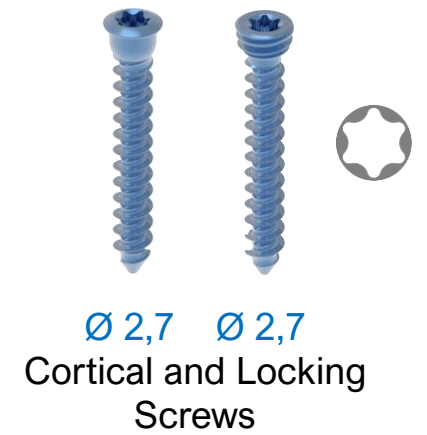
Radial Head Plates 2,7 mm

**MultiFix**

Radial Head Plate  
RLS Ø 2,7 mm



Radial Head Plate  
RLS Ø 2,7 mm



Distal Radius Plates 2,7 mm

**MultiFix**

Distal Radius  
Plate  
RSS Ø 2,7 mm



Distal Radius Volar Plate  
Anatomical Plate  
RSS Ø 2,7 mm



Distal Radius  
Dorsal Plate  
DRP Ø 2,7 mm



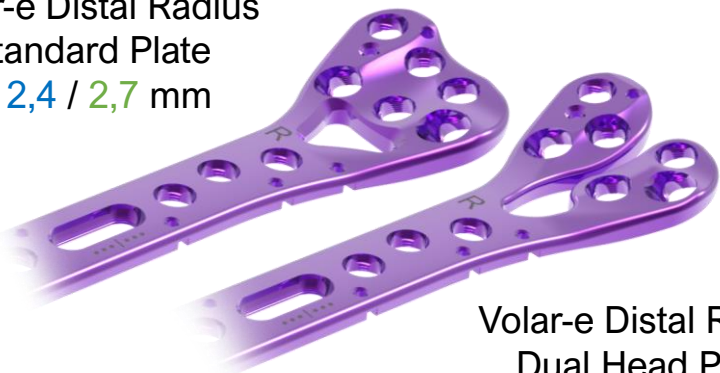
Distal Radius  
Volar Plate  
Universal Plate  
RSS Ø 2,7 mm



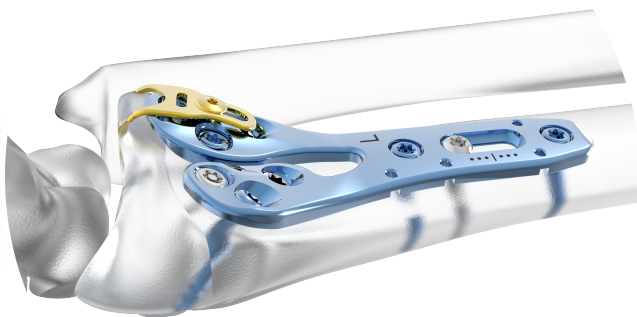
**Applications**

**VolarE**

Volar-e Distal Radius  
Standard Plate  
Ø 2,4 / 2,7 mm

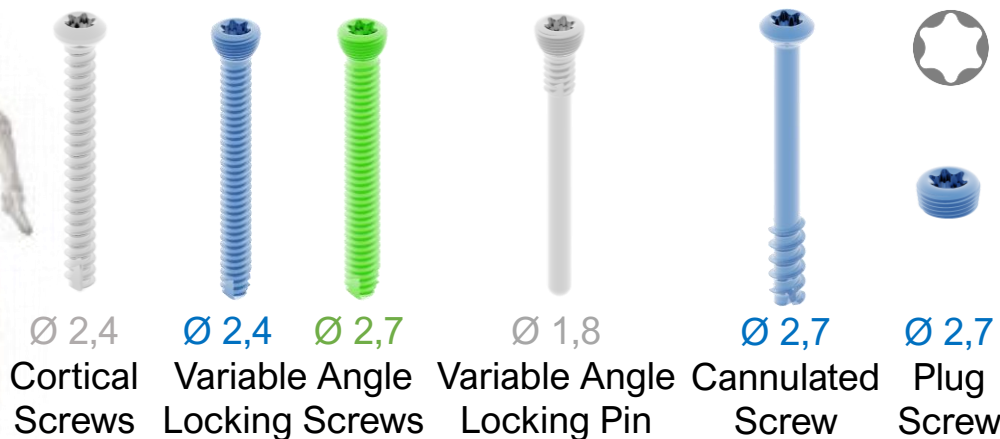


Volar-e Distal Radius  
Dual Head Plate  
Ø 2,4 / 2,7 mm



Volar-e Ulnar Plates  
Ø 2,4 / 2,7 mm

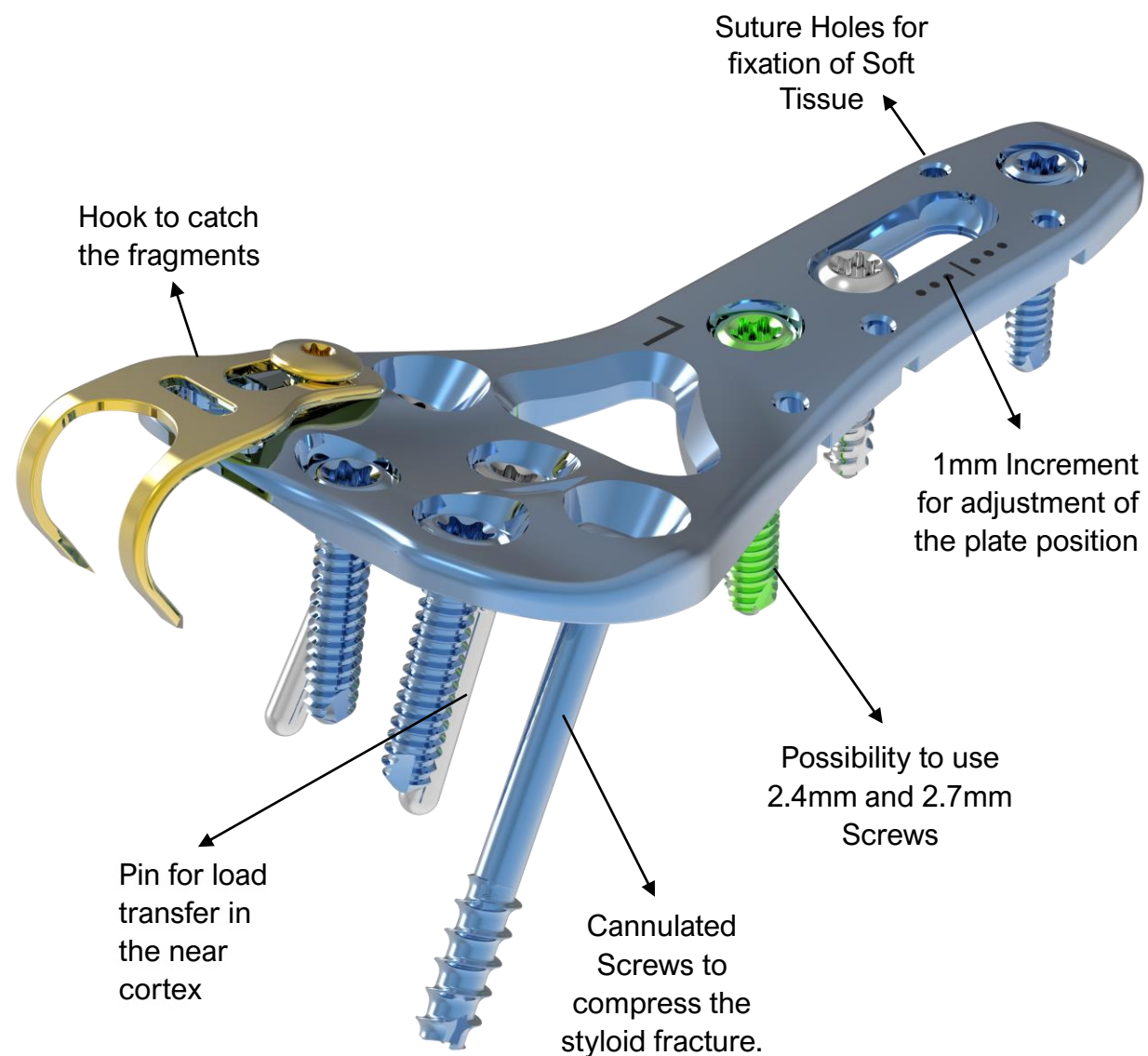
Multiple Guiding  
Systems



**Different types of plates for all types  
of Distal Radius fractures**

**Volar-e**

**SmartFix**



Applications

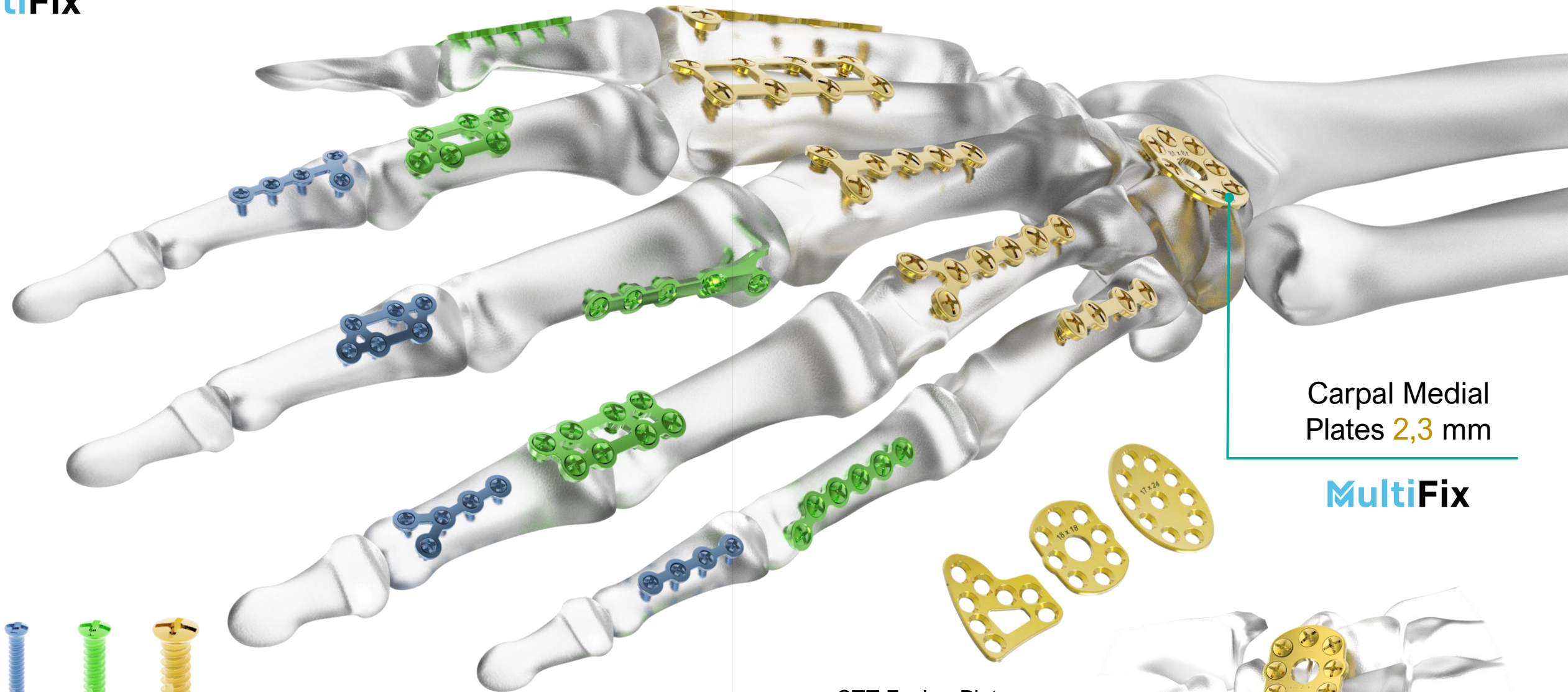
Hand

COMBO-HAND

MultiFix

Comprehensive Plating System

Ø 1,2 / Ø 1,7 / Ø 2,3



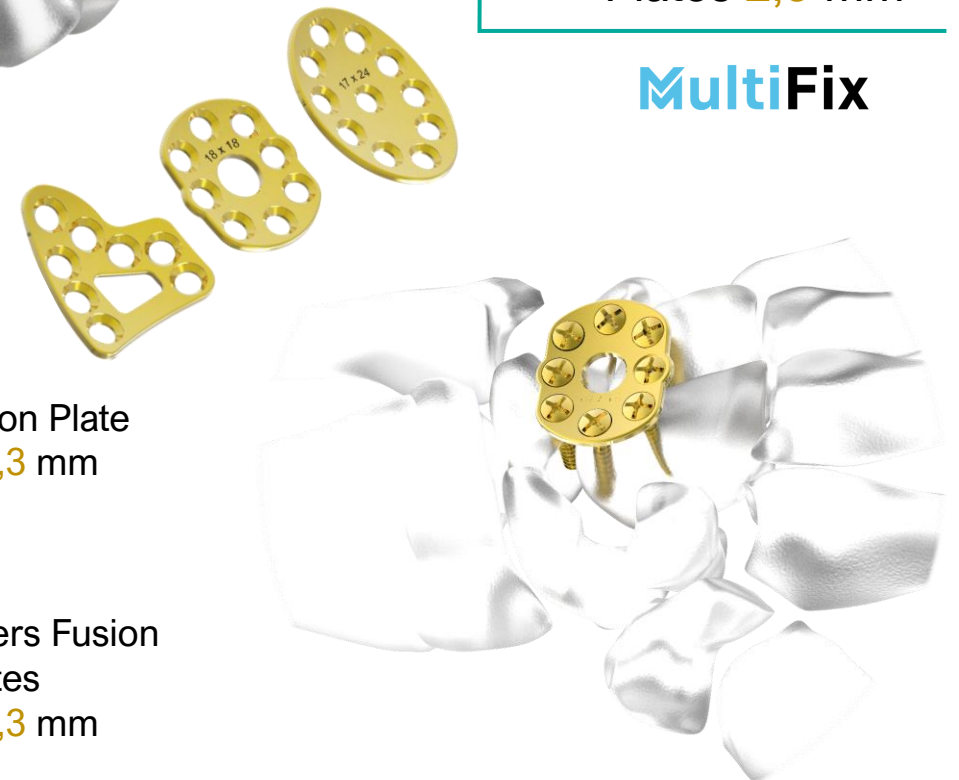
Carpal Medial  
Plates 2,3 mm

MultiFix



STT Fusion Plate  
CMS 2,3 mm

Four Corners Fusion  
Plates  
CMS 2,3 mm

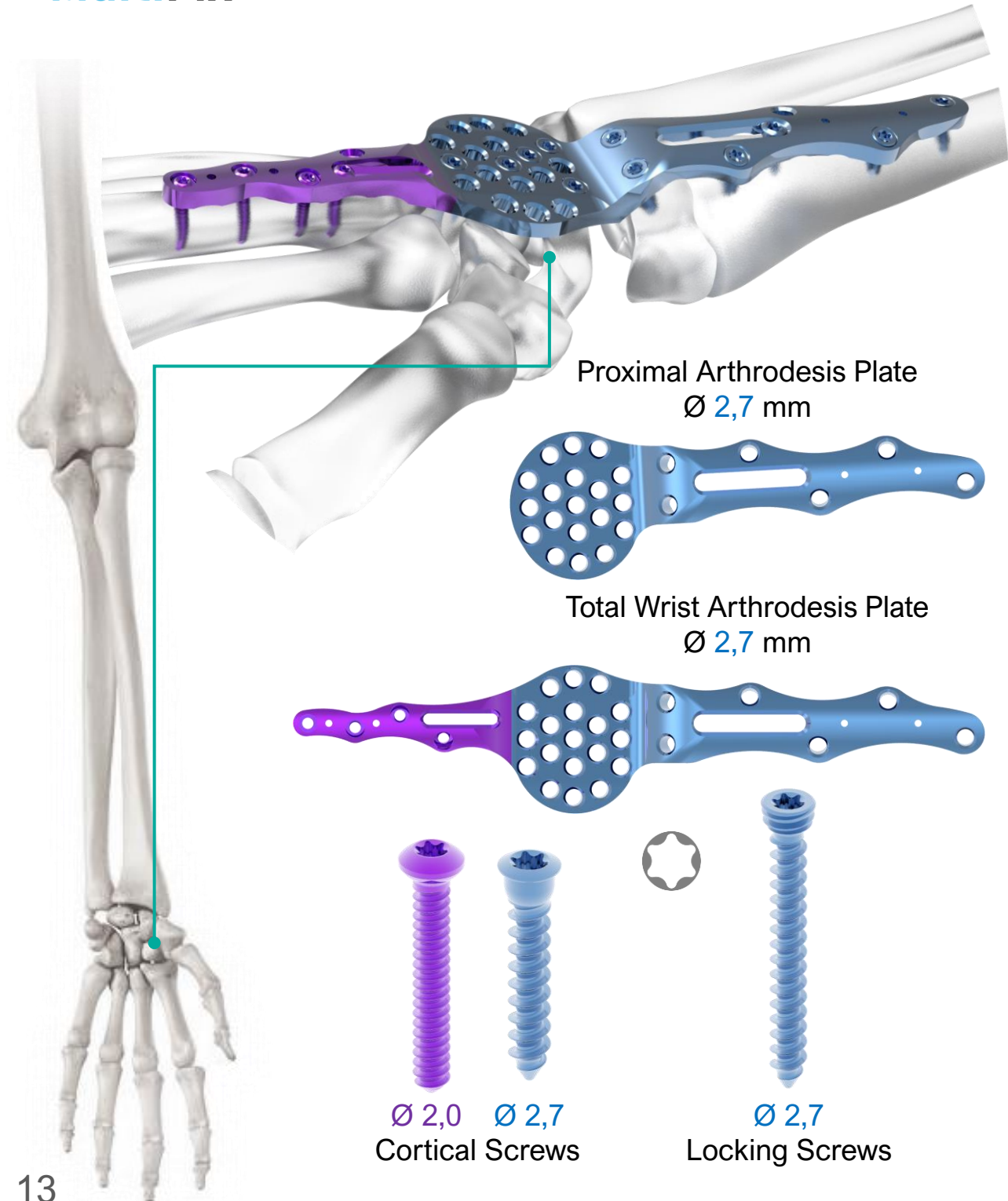




# Wrist

## Radiocarpal Arthrodesis

### MultiFix



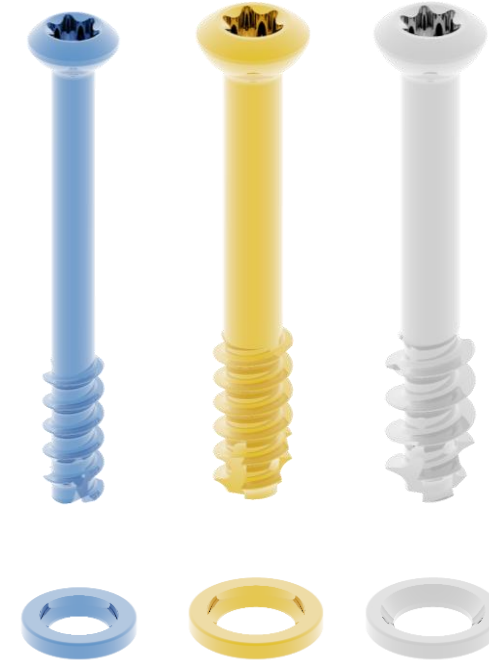
# Cannulated Screws

## Upper Extremities Applications

### AstroCAN

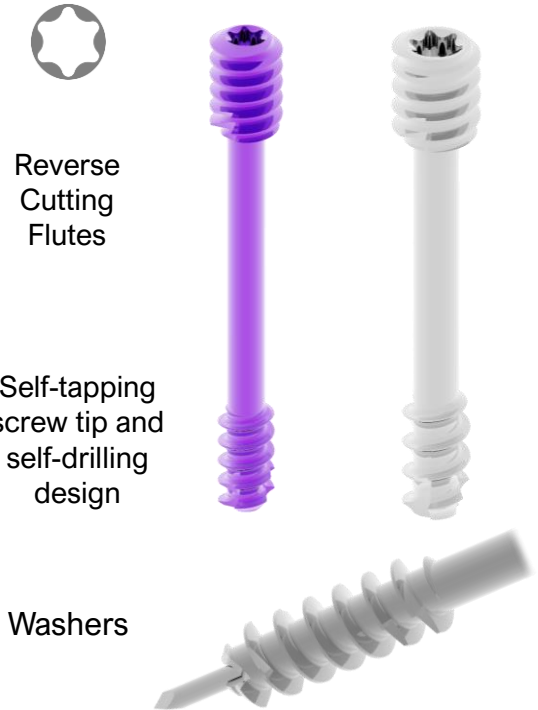
#### Cannulated Bone Screws - CBS

Ø 2,7mm    Ø3,5mm    Ø4,0mm



#### Cannulated Compression Screws - CCS

Ø2,5mm    Ø3,0mm



Main Indications	CBS	CBS	CBS	CCS	CCS
	Ø2,7	Ø3,5	Ø4,0	Ø2,5	Ø3,0
Proximal Humerus		x	x	x	x
Distal Humerus	x	x		x	x
Proximal Radius	x			x	x
Ulnar Styloid				x	x
Radial Styloid				x	
Scaphoid				x	x
Carpal Arthrodesis				x	x
Phalanges & Metacarpals Fx	SI			SI	

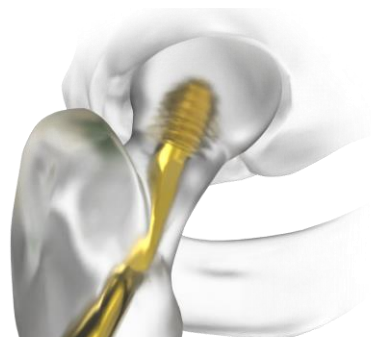
SI = Sometimes indicated due to anatomical variances

**Applications**

**Hip / Femur**

DHS / DCS Plates

**LIV trauma**



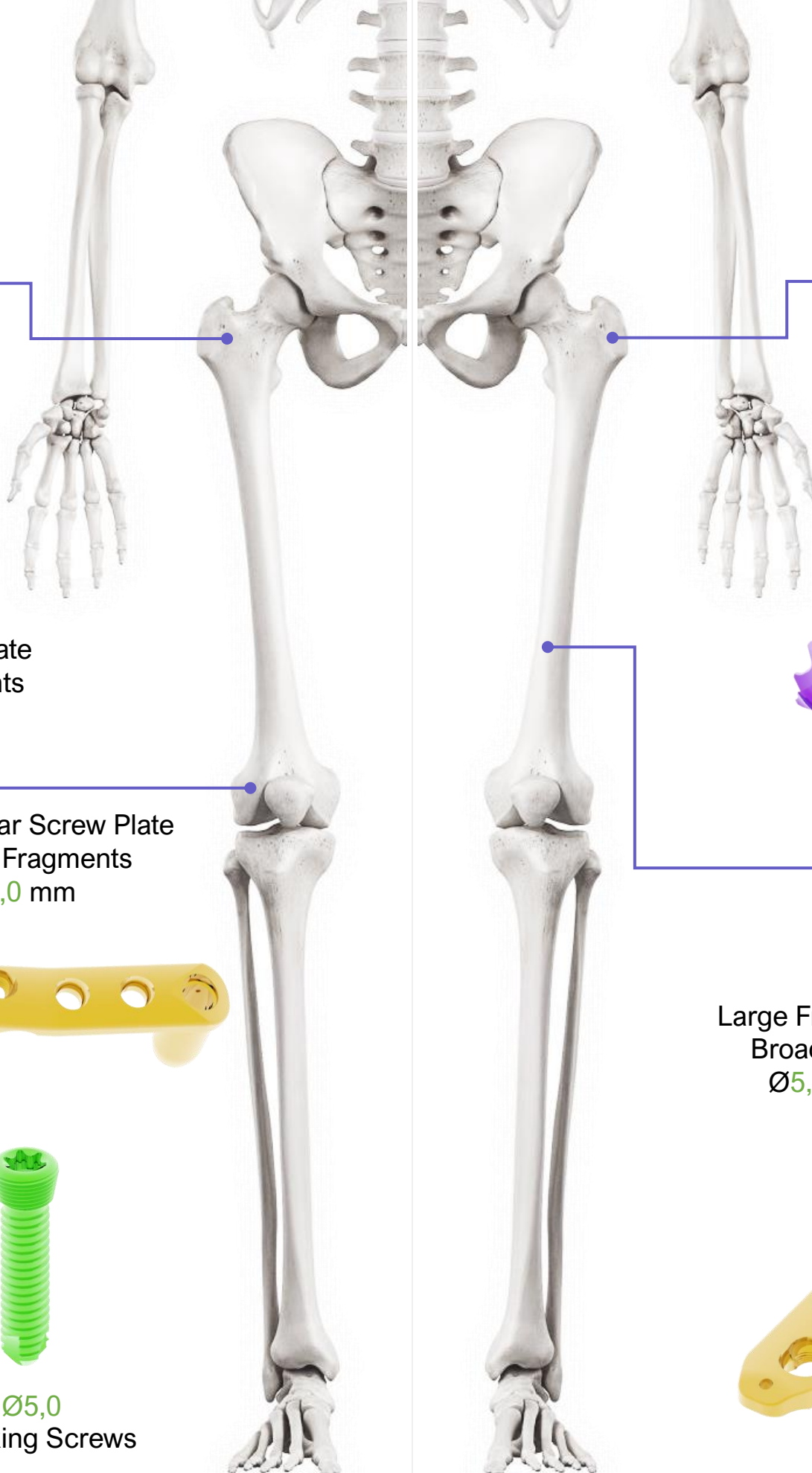
Dynamic Hip Screw Plate  
DHS – Large Fragments  
Ø 4,5 / 5,0 mm

Dynamic Condylar Screw Plate  
DCS – Large Fragments  
Ø 4,5 / 5,0 mm

Lag Screw Ø12,7  
w/ Compression  
Screw



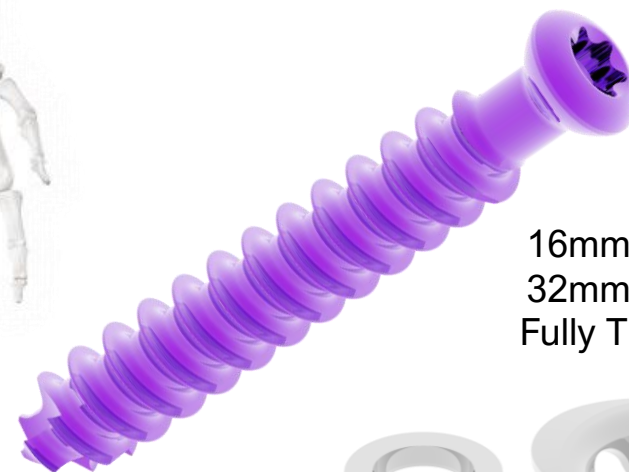
Ø 4,5    Ø5,0  
Cortical and Locking Screws



**Cannulated Screws**

7,0mm Cannulated Screw

**AstroCAN**



16mm Thread  
32mm Thread  
Fully Threaded



Washer

Broad Plate 5,0mm

**LIV trauma**

Large Fragments  
Broad Plate  
Ø5,0mm



Full Range of  
Plate Sizes

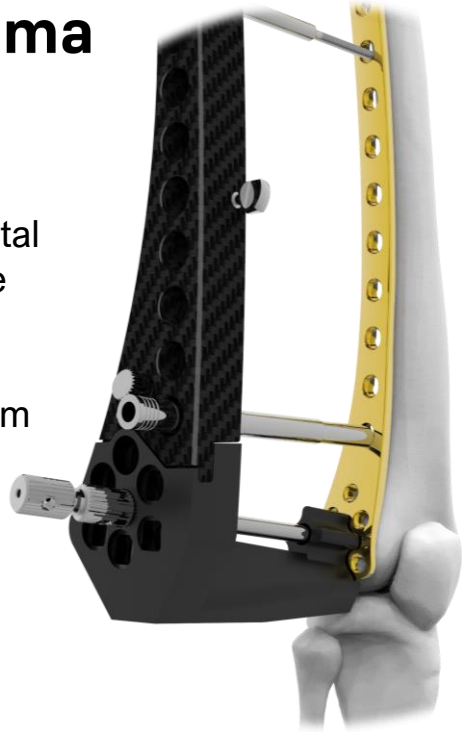
**Applications**

**Femur Knee**

LISS-LCP Femur

**LIV trauma**

LISS-LCP Distal Femur Plate  
Large Fragments  
Ø 4,5 / 5,0 mm



Ø 4,5   Ø4,0   Ø5,0  
Cortical and Locking Screws



Ø 6,5   Ø6,5   Ø6,5  
Cancellous Screws



Ø 5,0  
Periprosthetic   Plug   Spacer  
Screws

**Cannulated Screws**

For Knee

**AstroCAN**

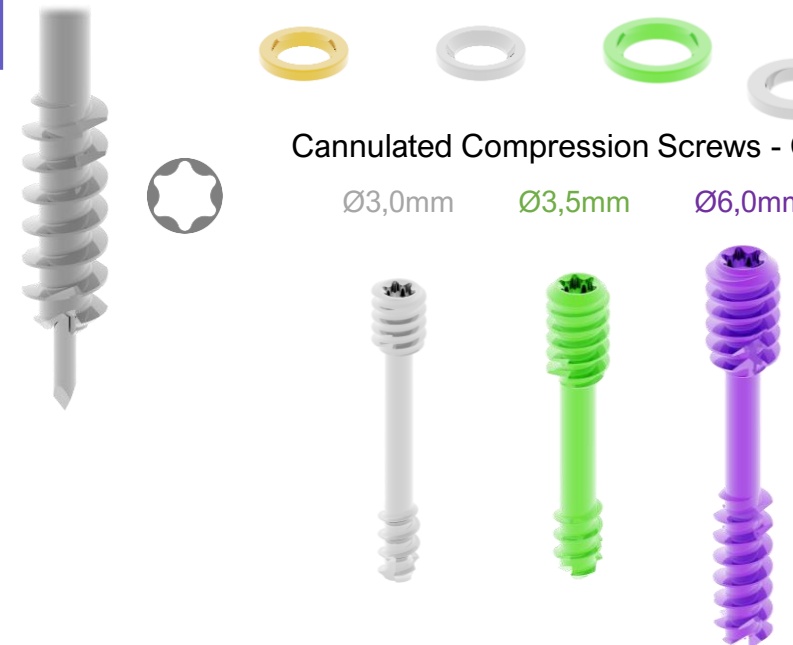
Cannulated Bone Screws - CBS

Ø3,5mm   Ø4,0mm   Ø4,5mm   Ø7,0mm



Cannulated Compression Screws - CCS

Ø3,0mm   Ø3,5mm   Ø6,0mm



**Main Indications**

	CBS Ø3,5	CBS Ø4,0	CBS Ø4,5	CBS Ø7,0	CCS Ø3,0	CCS Ø3,5	CCS Ø6,0
Femoral Condyles			x	x			x
Patella	x	x			x	x	
Tibial Plateau		x	x	x		x	x

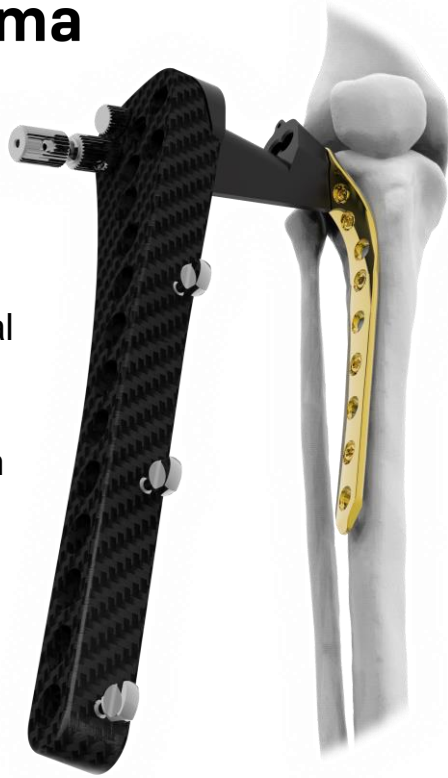
**Applications**

**Femur Knee**

LISS-LCP Tibia

**LIV trauma**

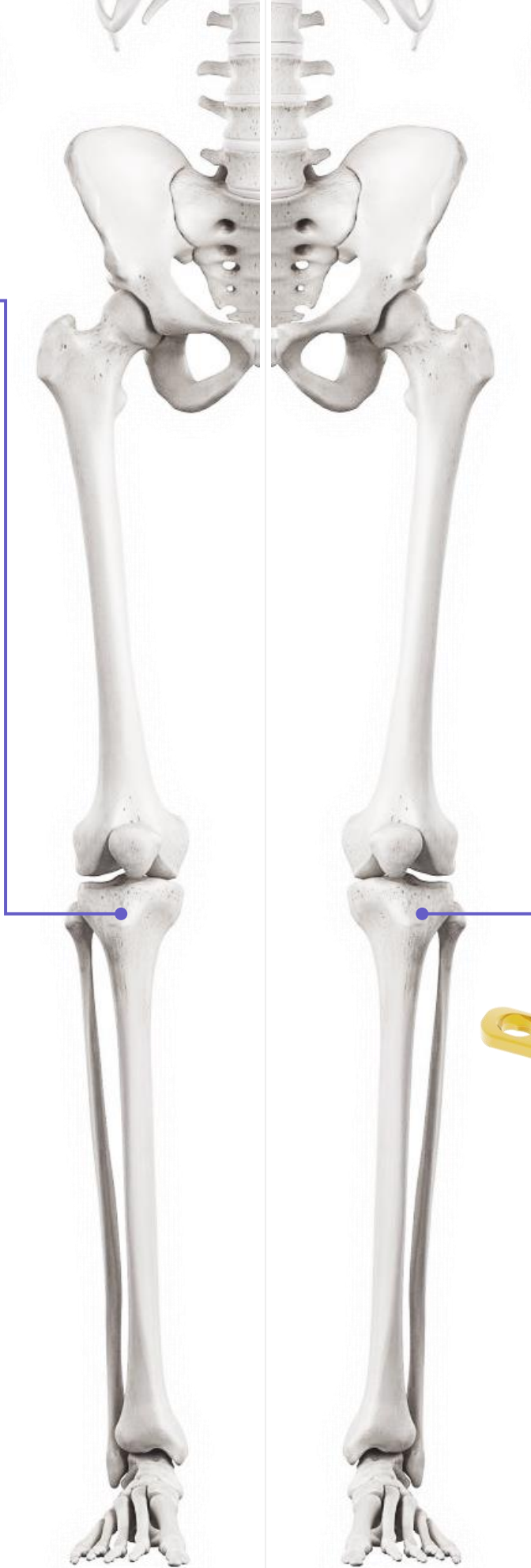
LISS-LCP  
Proximal Lateral  
Tibia Large  
Fragments  
Ø 4,5 / 5,0 mm



Ø 4,5    Ø 4,0    Ø 5,0  
Cortical and Locking Screws



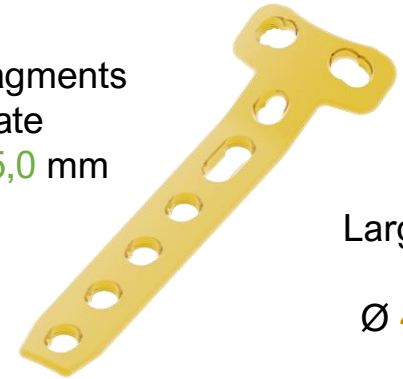
Ø 5,0  
Periprosthetic    Plug    Spacer  
Screws



T and L Plates 5,0mm  
Reconstruction Plate 5,0mm

**LIV trauma**

Large Fragments  
T Plate  
Ø 4,5 / 5,0 mm



Large Fragments  
L Plate  
Ø 4,5 / 5,0 mm

Large Fragments  
Support Plate  
(For medial Fixation)  
Ø 4,5 / 5,0 mm



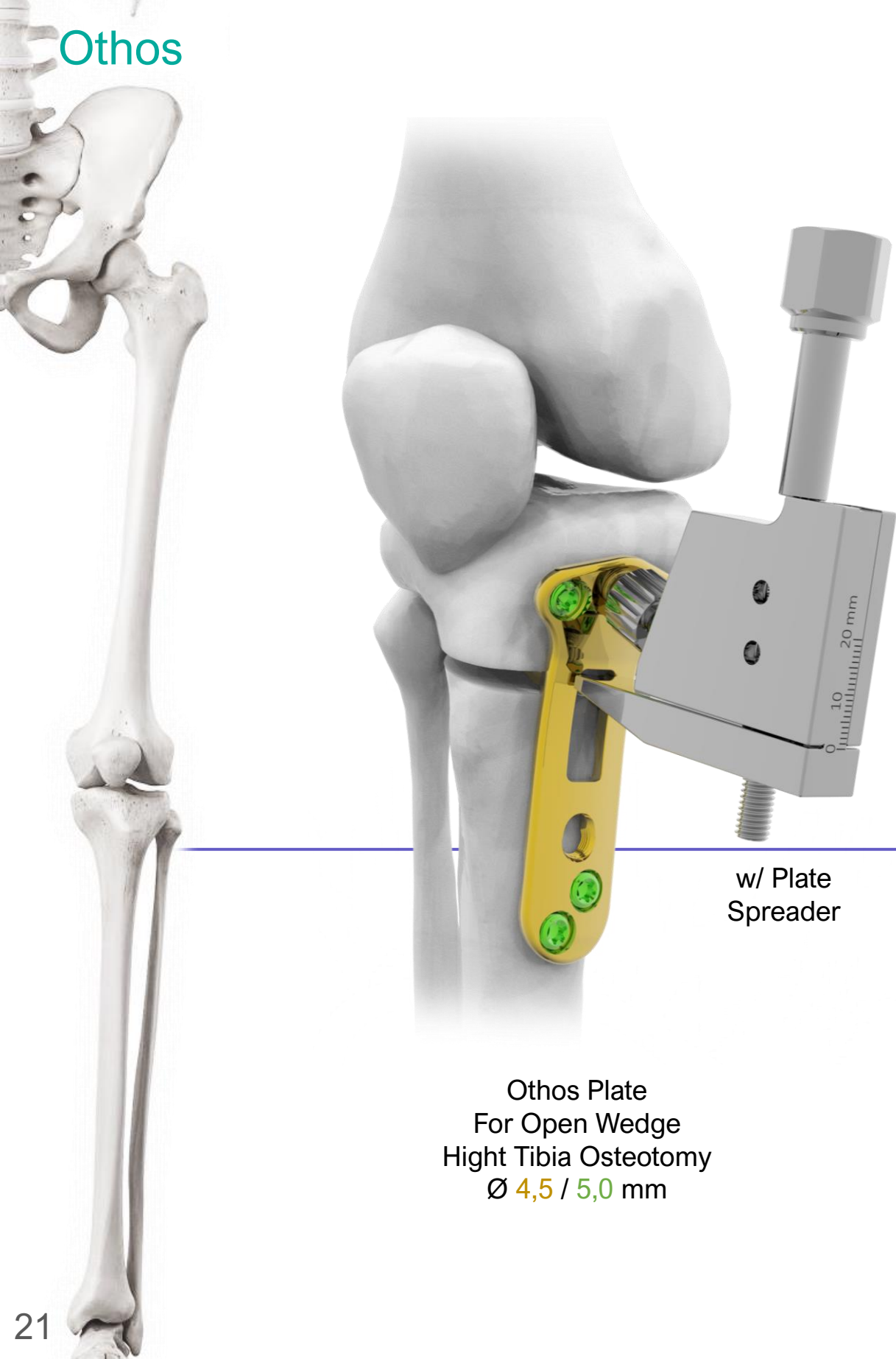
Large Fragments  
Reconstruction Plate  
Ø 4,5 / 5,0 mm



Ø 6,5  
Cancellous  
Screws

Applications

Othos



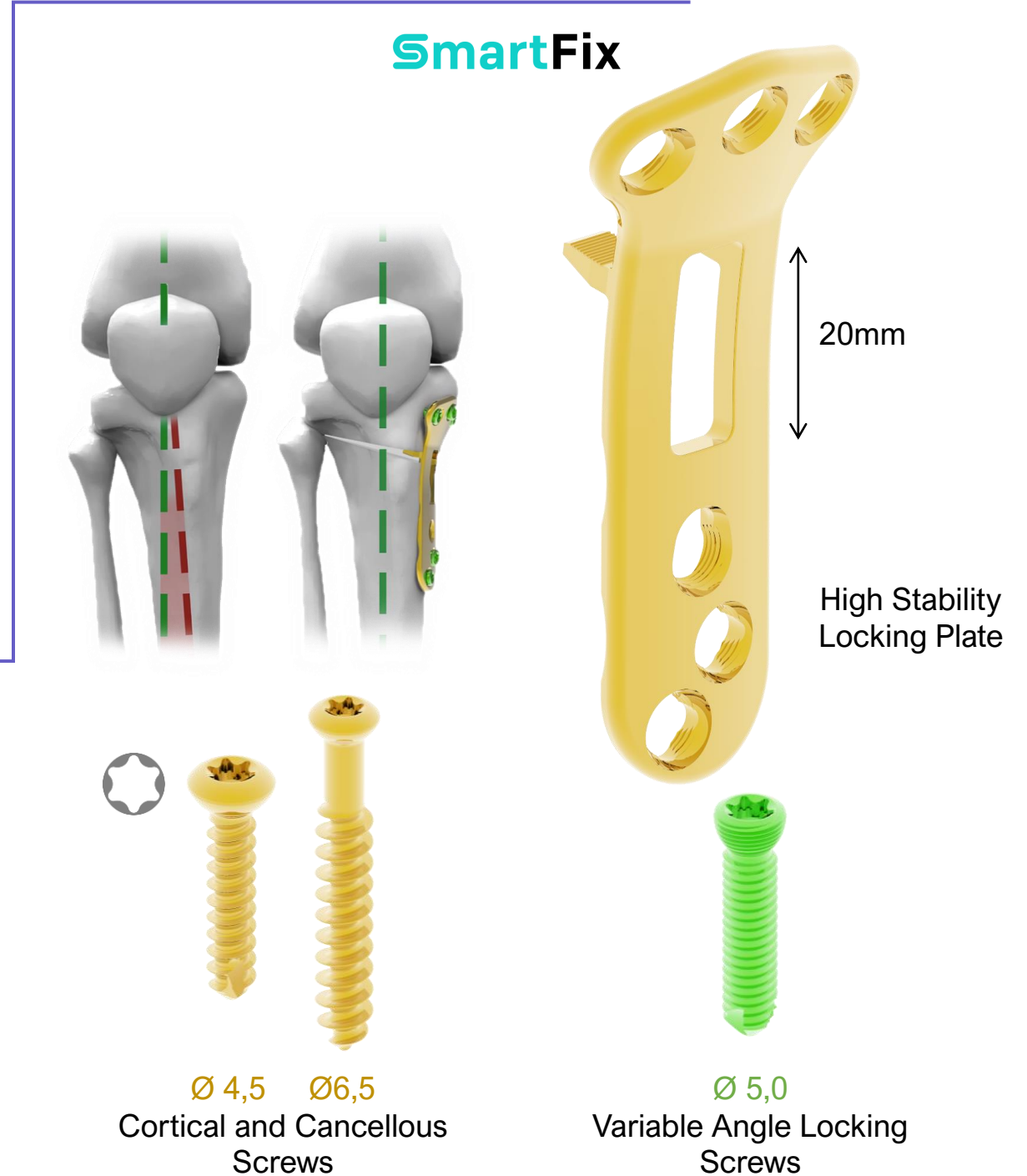
w/ Plate Spreader

Othos Plate  
For Open Wedge  
High Tibia Osteotomy  
Ø 4,5 / 5,0 mm

One size plate for a addition osteotomy up to 20mm

**Othos**

SmartFix



20mm

High Stability  
Locking Plate



Ø 4,5 Ø 6,5  
Cortical and Cancellous  
Screws

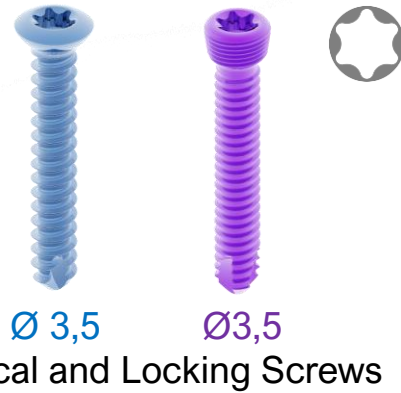
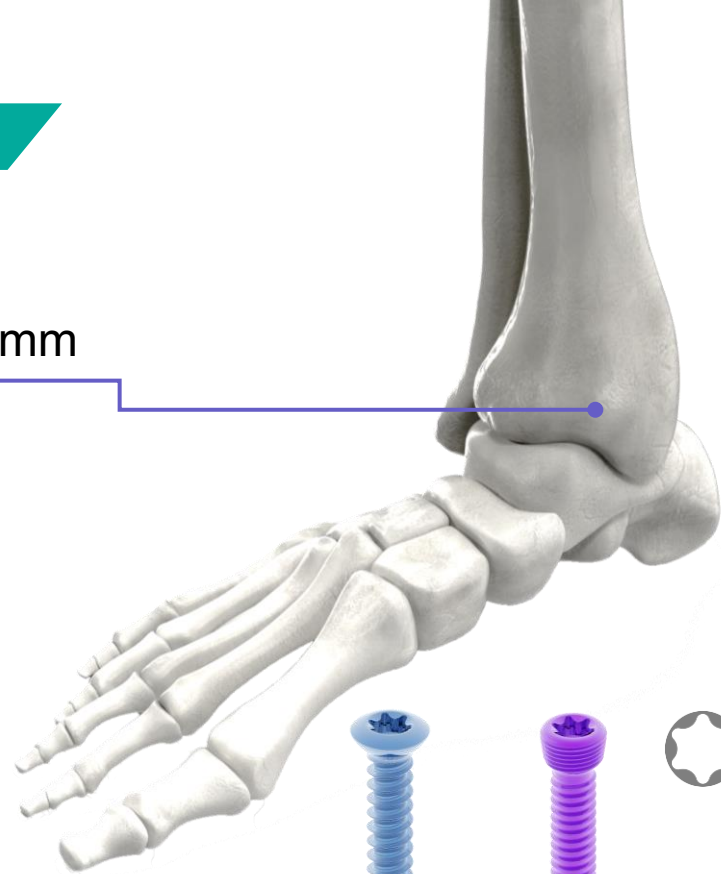
Ø 5,0  
Variable Angle Locking  
Screws

**Applications**

**Ankle**

Medial Distal Tibia 3,5mm

**LIV trauma**

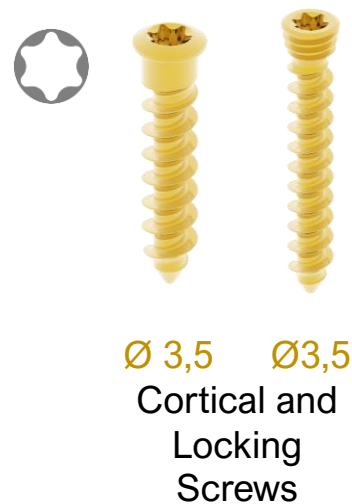


Malleolus Plate 3,5mm

**MultiFix**



Medial/Lateral Plate  
Ø 3,5 mm

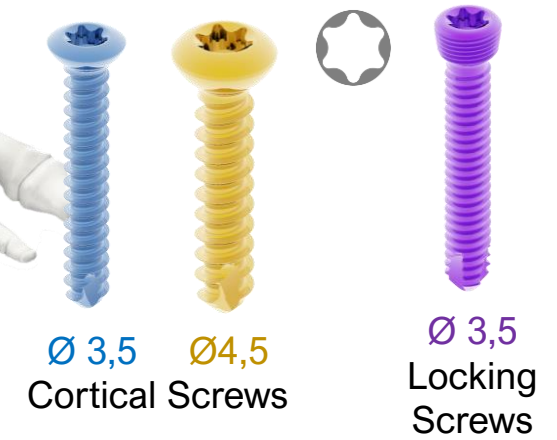


Metaphyseal 3,5 / 4,5 mm

**LIV trauma**



Distal Fibula 2,7 / 3,5mm



**LIV trauma**



Distal Fibula Lateral  
Small Fragments  
Ø 2,7 / 3,5 mm

Distal Fibula  
Posterior  
Small Fragments  
Ø 2,7 / 3,5 mm

**Applications**

**Foot**

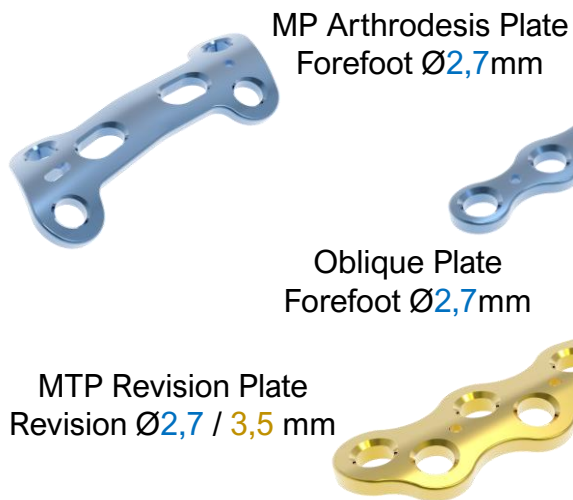
**Forefoot Procedures**

**MultiFix**

**1<sup>st</sup> Metatarsophalangeal Arthrodesis**

A first MTP arthrodesis can be performed in cases of arthritis (hallux rigidus) or deformity. The goal is to fuse (or permanently stiffen) the first metatarsal and proximal phalanx.

**Plating Systems**



**Screws & Staples Solutions**

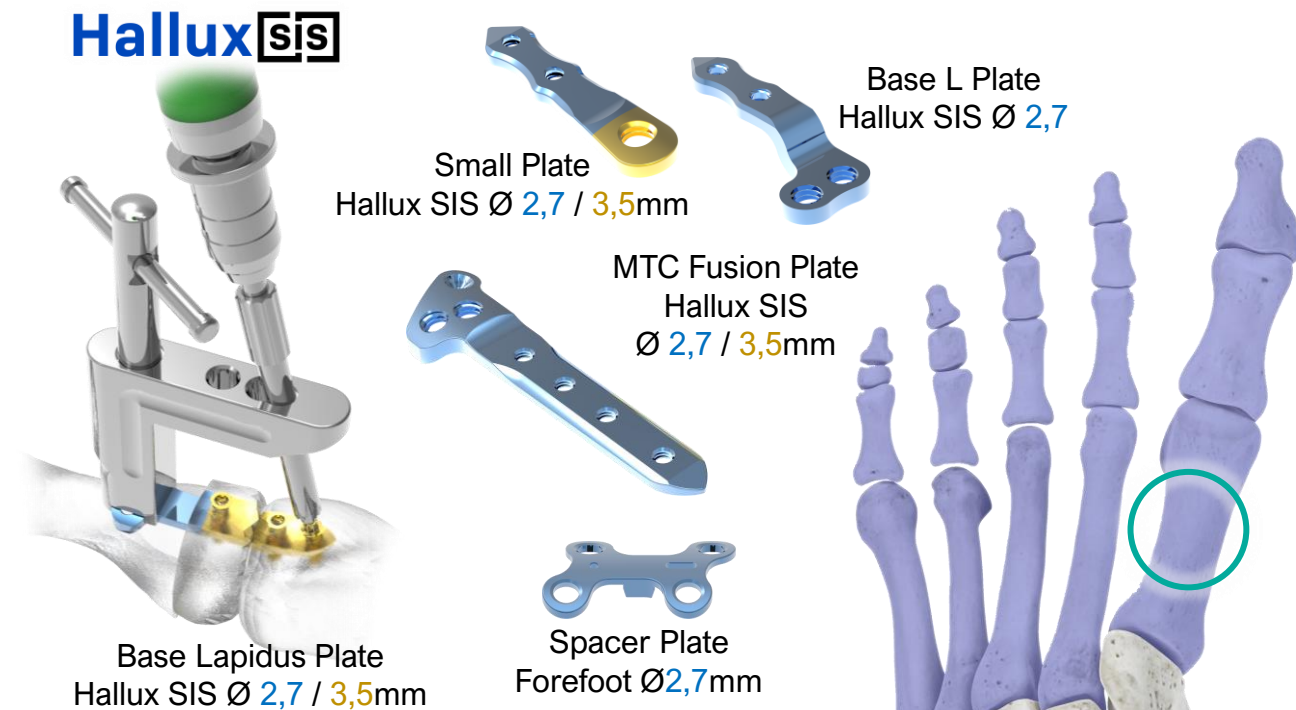


**Comprehensive Plating and Screws Solutions**

**Hallux Valgus (Bunion)**

There are many procedural techniques to correct a hallux valgus deformity, including osteotomies and arthrodesis.

**Plating Systems**



**Screws & Staples Solutions**



**Applications**

**Foot**

**Forefoot Procedures**

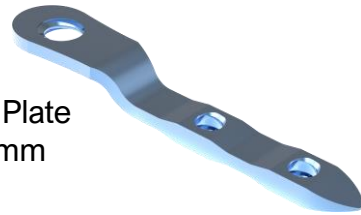
**MultiFix**

**Bunionette (Taylor's Bunion)**

A bunionette is an abnormal protuberance on the lateral side of the fifth toe. Surgical treatment can require a corrective osteotomy.

**Plating Systems**

Subcapital 5<sup>th</sup> MT Plate  
Hallux SIS Ø2,7mm



Snap-Off Screw Ø2,0  
Forefoot Ø2,7mm



Mini-Staples  
Forefoot Ø2,7mm

**Screws Solutions**



CCS Ø2,5 / Ø3,0mm  
Forefoot Ø2,7mm



Conical Head Screw  
Conical Ø2,7mm



**Comprehensive Plating and Screws Solutions**

**Jones Fracture (Bunion)**

There are many procedural techniques to correct a hallux valgus deformity, including osteotomies and arthrodesis

**Plating Systems**



Oblique Plate  
Midfoot Ø2,7mm



T Plate  
Midfoot Ø2,7mm

**Screws Solutions**



Cannulated Screw  
Partial Thread  
CBS Ø4,0mm



Cannulated Screw  
Partial Thread  
CBS Ø4,5mm





**Applications**

**Foot**

**Forefoot Procedures**

**MultiFix**

**Interphalangeal joint arthrodesis**

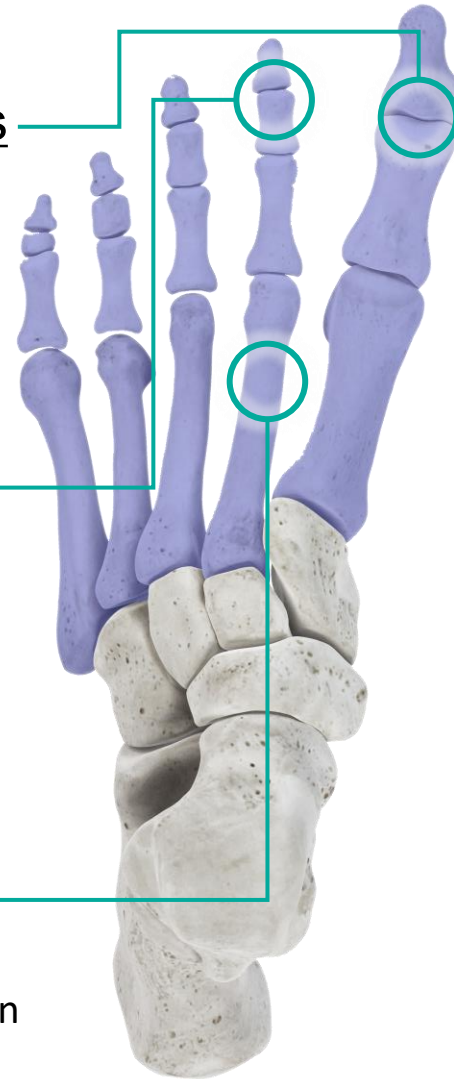
Arthrodesis of the great toe's interphalangeal joint is a common procedure in order to treat a variety of conditions.

**Hammertoe correction (DIP/PIP Joint)**

Hammertoe correction of the PIP joint or Mallet toe correction of the DIP joint commonly involves arthrodesis of the affected joint.

**Metatarsal shortening (Weil Osteotomy)**

Metatarsal shortening osteotomies are often used to correct angular deformities or toe dislocations, most commonly seen in hammertoes or claw toes.



**Screws & Staples Solutions**



Mini-Staples  
Forefoot Ø2,7mm



CCS Ø2,5  
Forefoot Ø2,7mm



Conical Head Screw  
Conical Ø2,7mm



Snap-Off Screw Ø2,0  
Forefoot Ø2,7mm

**Comprehensive Plating and Screws Solutions**

**Metatarsal Fractures**

The five metatarsal bones are the long bones of the midfoot. A metatarsal fracture occurs when one of these long bones is broken. This may be due to sudden injury (an acute fracture), or due to repeated stress (stress fracture).

**Plating Systems**



Straight Plate  
Midfoot Ø2,7mm



T Plate  
Midfoot Ø2,7mm



Oblique Plate  
Midfoot Ø2,7mm



Clover Plate  
Midfoot Ø2,7mm



**Applications**

**Foot**

**Midfoot Procedures**

**MultiFix**

**1<sup>st</sup> TMT joint Arthrodesis (Lapidus)**

The Lapidus procedure is a fusion of the first TMT joint intended to eliminate joint movement and correct deformity around the first metatarsal.

**Plating Systems**



Universal Plates  
Midfoot Ø2,7mm  
Rearfoot Ø3,5mm

**LapidoFix**



**Screws & Staples Solutions**



**Comprehensive Plating and Screws Solutions**

**Lisfranc**

A Lisfranc injury involves dislocation or subluxation of one of the metatarsals from the rest of the intact foot.

**Plating Systems**



**Screws & Staples Solutions**



## Applications

### Foot

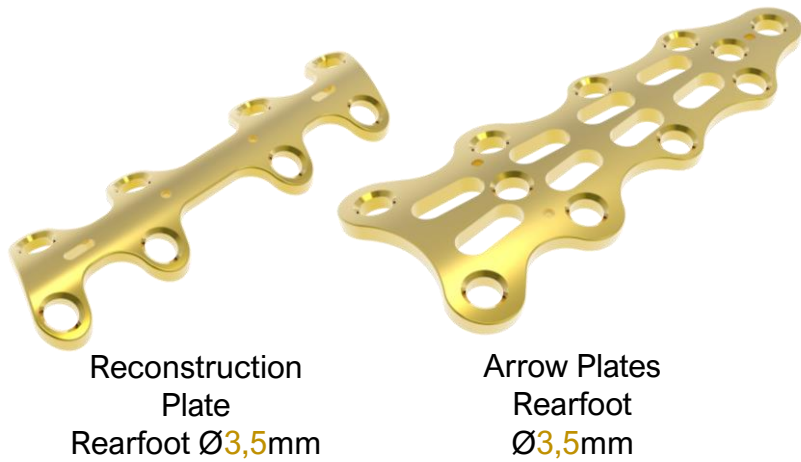
#### Midfoot Procedures

#### MultiFix

### Medial Column Arthrodesis

A medial column arthrodesis involves removing the joints between the navicular, medial cuneiform, and first metatarsal to reduce motion, correct deformity, and eliminate pain.

#### Plating Systems



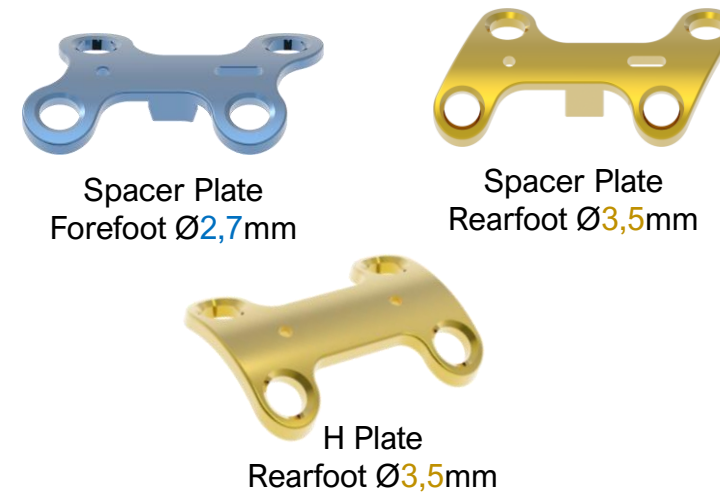
#### Screws Solutions



## Comprehensive Plating and Screws Solutions

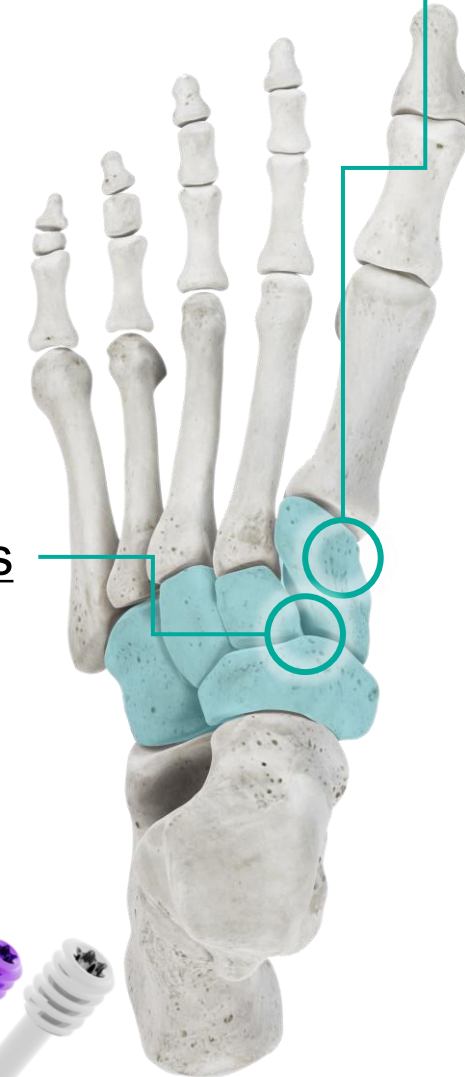
### Medial Cuneiform Osteotomy (Cotton)

A cotton osteotomy is a medial cuneiform opening wedge osteotomy. It is commonly used in conjunction with other procedures to aid in the correction of flatfoot.



### Navicular Cuneiform Arthrodesis

Navicular Cuneiform (NC) joint fusion can be performed to relieve arthritis or deformity related pain.



Foot

Rearfoot Procedures

**MultiFix**

Evan's Osteotomy

The Evans osteotomy is a lateral column lengthening osteotomy, preserving the calcaneocuboid joint.



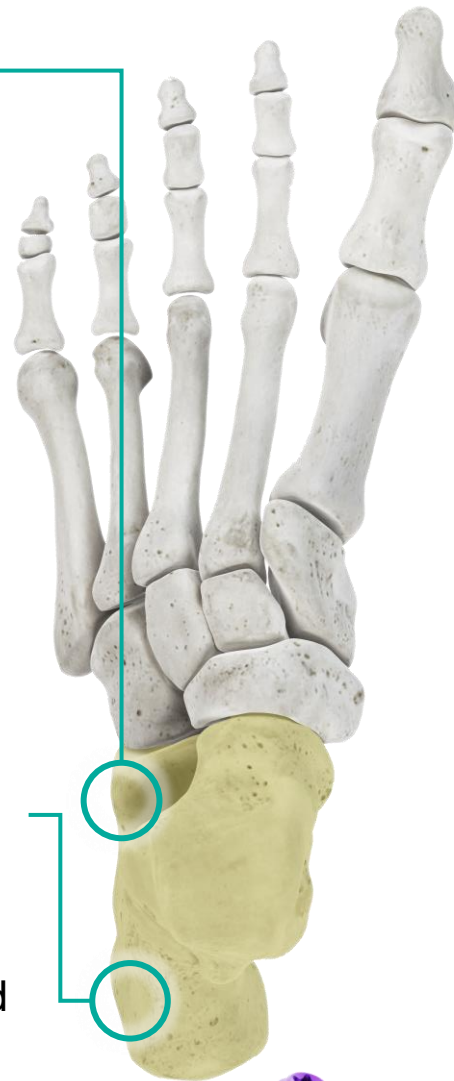
Spacer Plate  
Forefoot Ø2,7mm



Spacer Plate  
Rearfoot Ø3,5mm



H Plate  
Rearfoot Ø3,5mm



Medial Displacements Osteotomy

Calcaneal sliding osteotomies are commonly performed to correct hindfoot deformity. The calcaneus can be translated in either a medial or lateral direction.



Spacer Plate  
Rearfoot Ø3,5mm



Cannulated Screw  
CBS Ø7,0mm



Cannulated  
Compression Screw  
CCS Ø6,0mm

Talo-Calcaneal Arthrodesis (Subtalar)

The subtalar joint (talocalcaneal joint) is a common source of arthritis, often seen in hindfoot deformity, inflammatory conditions, or following calcaneus fractures. An arthrodesis in this location fuses the joint to eliminate movement, thus helping to correct deformity and improve symptoms.

Screws Solutions



Cannulated Screw  
CBS Ø4,0mm



Cannulated Screw  
CBS Ø4,0mm



Cannulated Screw  
CBS Ø7,0mm



Cannulated  
Compression Screw  
CCS Ø3,5mm



Cannulated  
Compression Screw  
CCS Ø6,0mm



## Applications

### Foot

#### Rearfoot Procedures

#### MultiFix

#### Talonavicular Arthrodesis

Talonavicular joint arthrodesis has been utilized for a variety of pathologies, including: arthritis, deformity, inflammatory conditions, and instability in the hindfoot

#### Plates & Screws Solutions



Universal Plate  
Rearfoot Ø3,5mm



Cannulated Screw  
CBS Ø4,0mm  
CBS Ø4,5mm



Cannulated Screw  
CBS Ø7,0mm



Cannulated  
Compression Screw  
CCS Ø3,5mm  
CCS Ø6,0mm

## Comprehensive Plating and Screws Solutions

### Calcaneal Fracture

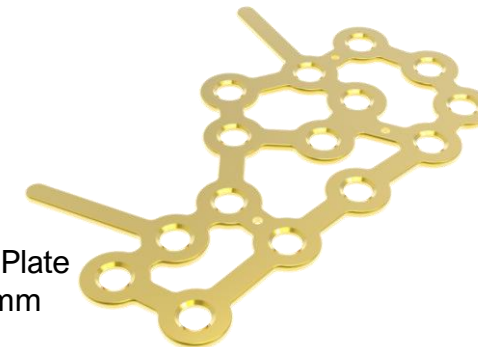
Fractures of the calcaneus or heel bone most often occur after falls from heights or motor vehicle collisions. Treatment of calcaneal fractures may require surgery.

#### Plating Systems



Calcaneus Plate  
Rearfoot Ø3,5mm

Multifragmented Plate  
Rearfoot Ø3,5mm



#### Screws Solutions



Cannulated Screw  
CBS Ø4,0mm  
CBS Ø4,5mm



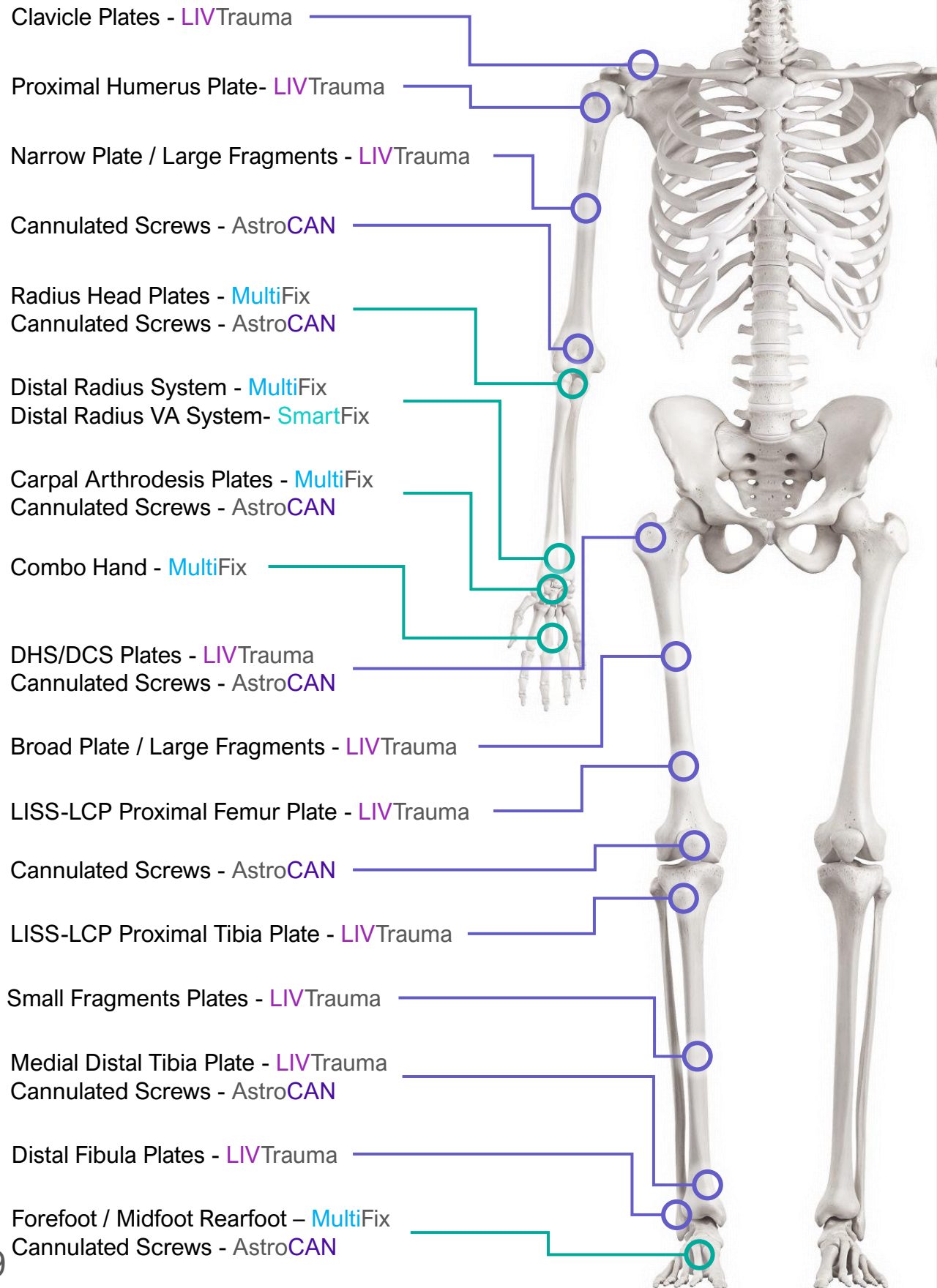
Cannulated Screw  
CBS Ø7,0mm



Cannulated  
Compression Screw  
CCS Ø3,5mm  
CCS Ø6,0mm



## Summary of applications by line



# Astrolabe

LIFE AND MOBILITY

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