# Product catalogue

World-class Orthoses

Developed and Patented in Switzerland



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The flexi-fix healer

#### **About us**

Our goal is to improve people's health, reduce their limb pain and speed up their recovery after injuries or specific diseases by develop world-class orthoses and related medical accessories. Based on our 25 years of experience and constant feedback from our customers, we develop, test and manufacture our product on our own R&D facilities in Switzerland and Hungary.

CHRISOFIX® holds several industry-trendsetter patents internationally, and further patents are under registration.

CHRISOFIX AG and CHRISOFIX HUNGARY Ltd. (previously ORKRISZ Ltd) are privately owned companies. They are responsible for designing, developing, manufacturing, and sale a world-wide patented product range of orthopaedic splints/orthoses. The two legally independent companies represent two closely related independent parts: central services (Chrisofix AG, Switzerland) and the production plant (Chrisofix Hungary Ltd, Hungary).

The first patent on CHRISOFIX® technology was filed by K. Bolla MD., the founder of CHRISOFIX Ltd. (Schaffhausen, Switzerland) at the end of 1995. The manufacturing of the CHRISOFIX® products was started in 1997 by Orkrisz Ltd. (Budapest). Since then, CHRISOFIX Ltd. has been continuously extending its product range by developing new, patent-protected splinting technologies and products.

The CHRISOFIX® technology is the newest fixation method characterized by combining the advantages of circular (e.g. plaster of Paris, thermoplastic materials) and segmental fixations (splints and orthoses). The use of CHRISOFIX® products makes the splinting quicker and more economical than the earlier developed limb fixation methods At the end of 2020 the Chrisofix group was sold to professional private investors, and with a new management and ambitious business strategy the company is being prepared for improve the relationship with its existing partners, and for further scale-up and to conquer new markets, worldwide.

The new management is determined to keep the core values of CHRISOFIX® set by the founders, and to build long-lasting partnerships with all existing and future partners.



**CHRISOFIX** 

CHRISOFIX® is a Swiss company with over 20 years of experience in designing and manufacturing orthopaedic splints and orthoses with customers all around the world. Based on our Corrugatech patented technology, our products provide **stable circular fixation** and **perfect fitting**, simultaneously ensuring a **comfortable** user experience and quick application, and **fulfilling both adjustability and reusability requirements.** 

CHRISOFIX® orthoses can provide optimal immobilisation, as confirmed by diverse clinical studies and hospital experts. The orthoses not only provide **state-of-the-art immobilization**, but also bring solid, contemporary design to the medical device market.

Our goal is to improve people's health, to reduce their pain and to speed up their recovery after injuries or specific diseases by developing unique, patented world-class orthoses and related medical devices.

Chrisofix products are **CE-marked** and equipped with **EAN-UDI identifications**, as such ready to be sold worldwide, based on worldwide accepted standards. Furthermore, all our products are documented, registered, and approved for sale in Europe, conforming to the requirements of the latest European Medical Device Regulation, or MDR.

Chrisofix as a manufacturer provides a high-quality product range, excellent marketing, online expertise, and a stable and solid, European-based, **ISO 13485-certified** production and logistics background.









# Chrisofix corrugatech (moldable memory metal) technology

- ~ all CHRISOFIX® orthoses ensure semicircular or circular fixation, they are adjustable and readjustable without water or heat, within one minute.
- ~ all products are stable and mouldable at the same time.
- ~ the readjustability to the same patient excludes the necessity of re-splinting with new material.
- ~ most of the traditional splints and custom-made thermoplastic products can be replaced by CHRISOFIX® orthoses.
- ~ earlier unrealisable therapeutic ideas become part of daily therapy
  - chest orthoses for rib fracture
  - quick interchangeability of an immobilising night splint to a less restricting one.
- the CHRISOFIX® PREMIUM FORTE versions (stable circular fixation) can be used instead of plaster of Paris on the upper limb before and after surgery, which may allow
  - earlier start with physiotherapy and
  - more convenient daily hygiene, since the splints can be removed and reapplied within one minute.
- ~ it became possible to create a new reusable product line for hospitals.

# It combines the advantages of splints, orthoses and cast-like fixations

#### In contrast to the conventional splints (segmental fixations), the Chrisofix® product range:

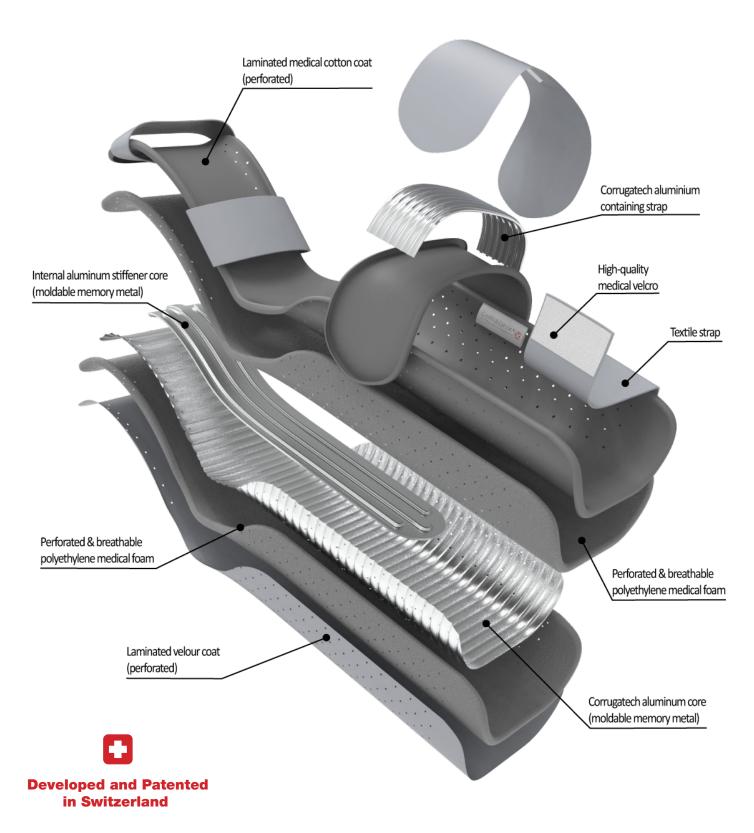
- ~ ensures a safer stable semicircular or circular fixation,
- ~ can be adjusted and re-adjusted within one minute, without water or heat,
- ~ can be adjusted directly on to the patient,
- has opened up new horizons in the usage and benefits of therapeutic splinting,
- ~ can provide more efficient and targeted immobilisation than usual fixation products

#### In contrast to the cast-like fixations, the Chrisofix® products:

- can offer cost efficiency both for users as well as for hospitals (quick usage),
- can be adjusted within one minute, saving time for the clinical personnel and the patients,
- ~ can allow more convenient daily hygiene and an earlier start of physiotherapy,
- ~ can replace and eliminate most of the thermoplastic fixations,
- ~ are light and comfortable similarly to the usual splints,
- ~ can repeatedly be adjusted for the same patient,
- ~ can be re-adjusted and reused by several patients after disinfection and exchange of the liner.



# **Material characteristics**

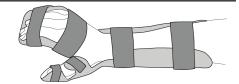


A patented product providing stable circular fixation, perfect fitting, parallel ensuring comfortable user experience with quick application, by also fulfilling both adjustability and reusability requirements. Chrisofix flexi-fix healer for efficient treatment and smart prevention.

# **Product versions**

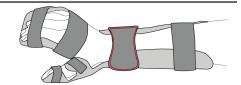
#### **PREMIUM**

Corrugated aluminium core embedded in cotton-laminated foam (inside) and velour-coated polyethylene foam (outside) **with textile straps.** As a result of the patented structure unique stability is ensured for the therapeutic use, like with no other product on the market.



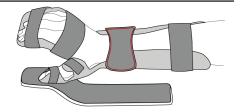
#### **PREMIUM FORTE**

PREMIUM version, **extended with aluminium containing strap** for more advanced stability. Those PREMIUM FORTE versions ensure a POP-like stable circular fixation.



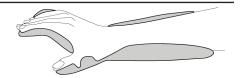
#### **PREMIUM FORTE PLUS**

PREMIUM FORTE version with extra stability, which is assured through an **external stiffener bar** added to the orthosis. Used only in case of special indications.



#### **SHELL**

PREMIUM product without straps.



#### **DISINFECTABLE SHELL**

Corrugated aluminium core embedded in polyethylene foam and covered with **polyethylene foil on both sides.** This allows not only the washing but also the disinfection of the products, making them suitable for multipatient use. They are delivered without straps.



#### **CHILDREN SIZES**

Marked with are available in **extra small** sizes for children.

#### **STANDARD**

Corrugated aluminium core embedded in cotton-laminated foam (inside) and polyethylene foam covered with polyethilene foil (outside). As a result of the patented structure unique stability is ensured for the therapeutic use, like with no other product on the market.

#### **DAY USE**

Provides efficient, but milder immobilisation of the affected area, while allowing freedom for daytime activities. Compared to the night / rest version it has a lighter structure and slightly modified shape, enabling less compromise and more freedom of movement.

#### **NIGHT/REST USE**

Provides unique stability and extra firm immobilisation for the affected area. It can be used both in the resting period (night), and also during the day. When using it during the day, it's special immobilisation capability slightly limits some of the daytime activities, by this it promotes an efficient resting of the given area (f.ex. fingers or wrist). Remark:

Both "night & rest use" as well as "daytime use" orthoses ensure efficient relief of symptoms by using them separately. In mild cases a few hour wearing of any of the versions may be sufficient, for middle and average cases we propose wearing "night & rest use" versions, but in extreme cases combined use of both "night & rest use" and "daytime use" versions may also be beneficial.

# Finger splints & Metacarpal Region



# Injuries of the fingers, aches and pains around the fingers

Our fingers are often hurt or injured while performing daily activities leading to pain or limited range of motion. In case of unsuccessful treatment pain may become chronic.

Stress and strain, the use of computers and other electronic devices, housework, sporting activities and previous injuries may all play a role in the development of pain in the fingers. Fractures, wear and tear of the ligaments, degenerative states, arthritis, certain systemic diseases (rheumatoid arthritis, gout, autoimmune diseases) may all cause symptoms of pain in the fingers.

Many of the above listed causes may lead to the wear and tear, the degeneration and in the last stages arthritis of the cartilage in the affected finger.

Damage to the ligaments or tendons of the fingers, or damage/degeneration of the joint of the fingers have typical symptoms. Is important to recognize these symptoms in time and to take them seriously in order to retain pain free and adequate function of our hand.

# Who is most often affected by aches and pains of the fingers?

Considering the fact that we connect to our environment and each other using our fingers and hands there is no age group that may not be affected by pulled ligaments, overstraining of the tendons, sprains, dislocations or fractures of the fingers. Degenerative states of the cartilage usually occur at a more mature age, or as a consequence of injuries or the diseases listed above.

# What are the most common symptoms of finger injuries or degenerative states/arthritis of the finger joints?

In case of fingers pain and limited range of motion go hand-in-hand. Injuries or degenerative states/arthritis usually lead to limited motion in the finger, however tendon injuries may cause limited movement of the affected finger as well.

The pain accompanying the limited range of motion may become chronic over time. It is typical to have a dull ache even during rest, and a sharp, more severe pain to certain motions. This sort of pain may make performing everyday activities, work tasks or sporting activities difficult, maybe even impossible. In some cases the fingers may become deformed over time.

# What can we do? How do Chrisofix® finger splints help alleviate the problem?

In the conservative (meaning without surgery) treatment of finger sprains, pulled or overstrained ligaments and tendons, degenerative states or arthritis of the fingers resting the finger in an appropriate finger splint is key. Wearing a well structured finger splint may help alleviate the aches and pains that make daily tasks and sometimes even our nights uncomfortable or painful.

"Functional" fixation of the fingers is a concept of paramount importance in hand surgery. This means that on the hand and fingers we only fixate the joints necessary to fixate for the shortest period necessary. The cornerstone of this concept is to fixate the fingers in the appropriate position to ensure appropriate stability, while avoiding overfixation. This means that we leave as many joints unfixed and free to move as we possibly can, thereby minimizing the risk of limited range of motion and maximizing the freedom of the hand.

## How long should we wear the finger splints?

Depending on the severity of the injury, sprain, fracture or arthritis and the symptoms themselves wearing the finger splints may be necessary for a few weeks or a few months, therefore comfort stability and hygienic considerations are paramount.

# Why Chrisofix® finger splints?

The concept of "functional" fixation, which minimizes the risk of developing limited range of motion in the fingers, and pain relief are served by the wide variety of Chrisofix® finger splints. They also provide excellent stability, while ensuring exact fitting and freedom of movement for the unaffected joints thereby helping to avoid overfixation.

Thanks to the special innovative design of Chrisofix® finger orthoses the aluminum core that makes up the frame of the orthoses provides adequate stability while maintaining the opportunity for precise and exact fitting, thereby preventing unwanted and uncomfortable potential symptoms caused by ill-fitting orthoses (pain caused by pressure and symptoms of skin irritation).

100 pcs.

#### **INDICATION**

Recommended for fixation of the PIP and DIP joints following injuries, stress and strain, ligament injuries and certain fractures or in case of degenerative states/arthritis (also rheumatoid arthritis, gout, autoimmune diseases) or as part of post surgical rehabilitation in certain cases. The malleable Chrisofix® long finger splint fixates the finger in an appropriate and desirable position – if this differs from the above described anatomical (0° or straight) position, while thanks to its innovative design it also ensures stability, comfort and precise fitting.





			pack	pack
Size	Length of splint	REF / Order number	REF / Order number	REF / Order number
XXXS (children small)	4.3 cm	101 121 104	101 121 304	101 121 904
XXS (children large)	5.5 cm	102 121 104	102 121 304	102 121 904
S (small)	6.5 cm	104 121 104	104 121 304	104 121 904
L (large)	7.2 cm	108 121 104	108 121 304	108 121 904
XL (extra large)	9.7 cm	109 121 104	109 121 304	109 121 904

# Mallet finger splint (DIP) - REF\_12

### **PREMIUM**

100 pcs.

10 pcs.

#### **INDICATION**

In certain cases for injuries or degenerative states/arthritis, fractures of the fingertips, injuries of the extensor tendons of the fingertips, arthritis or pain in the end joint of the finger. Thanks to the innovative design of the Chrisofix® mallet finger splint they secure appropriate positioning and stability while ensuring comfort, freedom of the joints and precise fitting.





			pack	pack
Size	ize   Length of   KEF /		REF / Order number	REF / Order number
S (small)	4 cm	124 121 101	124 121 301	124 121 901
M (medium)	5 cm	126 121 101	126 121 301	126 121 901
L (large)	6 cm	128 121 101	128 121 301	128 121 901

# **MP Joint orthosis - REF\_26**

## PREMIUM FORTE

10 pcs.

#### **INDICATION**

For first aid (sport injuries) and initial treatment. Isolated fifixation (without involvement of the wrist) of the metacarpop halangeal (MP) joints of fifingers II-IV with fixation of the proximal interphalangeal (PIP) and distal interphalangeal (DIP) joints of these fifingers in case of injuries, distorsions, inflammations (e.g. felons), degenerative diseases and following surgery.



Size Width of palm		REF / Order number
XXS (children large)	< 7 cm	262 121 183
S (small)	7-8 cm	264 121 183
L (large)	8 cm <	268 121 183

#### **INDICATION**

Immobilisation of 5th metacarpal including the metacarpophalangeal (MP) and the carpometacarpal (CMP) joints after injuries, distortions of the region and fractures of the 5th metacarpal, following surgery and initial fixation with plaster of Paris. Rehabilitation after surgery or post-fracture management.



Size	PIP - joint of the finger V. – line of the wrist	REF / Order number
S (small)	< 10.5 cm	284 121 186
M (medium)	10.6-11.9 cm	286 121 186
L (large)	12 cm <	288 121 186

# Thumb orthosis - REF\_16

#### PREMIUM FORTE

#### **INDICATION**

First aid / Fixation of the metacarpophalangeal (basal) joint of the thumb in case of injuries (e.g. strain or sprain), following surgery, inflammation (e.g. tenosynovitis), and in degenerative diseases. For saddle joint osteoarthritis please use the adequate device: Chrisofix® orthoses for saddle joint osteoarthritis.



Size	IP joint - line of wrist	REF / Order number		
XXS (children large)	< 7 cm	162 121 187		
S (small)	7-8 cm	164 121 187		
M (medium)	8- 9 cm	166 121 187		
L (large)	9 cm <	168 121 187		

# Thumb orthosis - Skier's thumb - REF\_23-24

# PREMIUM

#### **INDICATION**

Immobilisation of the I. metacarpophalangeal (I.MCP) joint in case of injuries, distorsion, i.e. skier's thumb. Partial immobilization of the thumb saddle joint, recommended for day use. In addition, it is proposed for various thumb MCP injuries, distorsions, rehabilitation following fractures, or as a complement to appropriate surgical procedures around the thumb MCP, at the discretion of the surgeon.



		REF / Order number		
Size	PIP - joint of the finger V. – line of the wrist	Right	Left	
S (small)	< 8 cm	234 121 186	244 121 186	
M (medium)	8-9 cm	236 121 186	246 121 186	
L (large)	9 cm <	238 121 186	248 121 186	

# Saddle joint orthoses for osteoarthritis, rhizarthrosis and De quervain's syndrome



#### What is saddle joint arthritis?

Sharp pain, provoked by certain movements of the thumb may draw attention to saddle joint arthritis (rhizarthrosis). The saddle joint is located at the base of the thumb, and over time the cartilage may experience wear and tear leading to degeneration of the joint. Stress and strain, the use of computers and other electronic devices, housework, sporting activities and previous injuries may all play a role in the development of rhizarthrosis. Saddle joint arthritis is characterized by typical symptoms. It is important to recognize these symptoms in time and to take them seriously in order to retain pain free and adequate function of our hand.

#### Who is most often affected by saddle joint arthritis (rhizarthrosis)?

Saddle joint arthritis is three to four times more common in women then it is in men. The process of joint degeneration may start around the age of 40, but most typically it becomes symptomatic over the age of 50.

### What are the most common symptoms of saddle joint arthritis?

The most common symptom accompanying saddle joint arthritis (arthritis of the I. carpometacarpal joint) is sharp pain provoked by strong grasping or pinching (writing, lifting a cup, turning a key, opening a bottle etc). Another characteristic of saddle joint arthritis is that certain typical motions or movements provoke the pain (i.e. twisting motion, unscrewing a cap, extending or stretching the thumb). Initially the pain is only associated to motion however, later on it may occur during rest or even during the night. Symptom free periods may alternate with periods of variable length characterized by pain and complaints due to symptoms. Another typical symptom is that due to the degeneration of the cartilage the joint is deformed, and the bones that make up the saddle joint may protuberate or "bulge out".

#### What is De Quervain's syndrome?

Sharp pain, provoked by certain movements of the thumb may draw attention to De Quervain's syndrome. The ligamentous tunnel located near the base of the thumb contains the tendons that extend lift the thumb. Over time wear and tear, repetitive motions of the thumb and wrist (i.e. repetitive lifting of heavy objects or a beloved child) lead to the narrowing or the development of a "stricture" in this ligamentous tunnel surrounding the tendons. This painful state is called De Quervain's disease. Stress and strain, the use of computers and other electronic devices, housework, sporting activities and previous injuries may all play a role in the development of De Quervain's syndrome. De Quervain's Syndrome is characterized by typical symptoms. It is important to recognize these symptoms in time and to take them seriously in order to retain pain free and adequate function of our hand.

#### Who is most often affected by De Quervain's syndrome?

De Quervain's syndrome is more common in women than it is in men. De Quervain's syndrome may start around ages as young as 40, but most typically it becomes symptomatic around the age of 30-50. Often those caring for small children especially a newborn are affected by DeQuervain's disease. Office work, or work involving fine but repetitive thumb motions and heavy physical labour may also lead to the development of this disease.

#### What are the most common symptoms of De Quervain's syndrome?

The most common symptom accompanying De Quervain's syndrome is sharp pain provoked by flexing/extending the thumb, or "sideway" motions of the wrist, strong grasping or pinching (writing, lifting a cup, turning a key, opening a bottle etc).

Another characteristic of De Quervain's syndrome is that certain typical motions or movements provoke the pain (i.e. twisting motion, unscrewing a cap, extending or stretching the thumb). Initially the pain is only associated with motion however, later on it may occur during rest or even during the night. Symptom free periods may alternate with periods of variable length characterised by pain and complaints due to symptoms. It is also typical that the dull constant ache turns into a sharp pain provoked by the above described motions making everyday tasks or work difficult, even impossible in certain cases.

# What can we do? How do Chrisofix® saddle joint ortheses help alleviate the problem?

In case of both osteoarthritis of the thumb and DeQuervain's syndrome, the use of an adequate orthosis that keeps the painful joint in the appropriate position plays a great role in conservative (meaning without operation) treatment ofs. By wearing an adequate orthosis the bothersome or even painful symptoms occurring during the day and maybe even during the night maybe alleviated.

#### How long should we wear the orthosis?

Depending on the severity of the saddle joint arthritis and the symptoms themselves wearing the orthosis may be necessary for a few weeks but more commonly for a few months, therefore comfort stability and hygienic considerations are paramount.

#### Why Chrisofix® saddle joint orthoses?

In the conservative treatment of saddle joint arthritis (meaning without an operation) resting the painful and degenerated joint in the appropriate position is paramount.

Due to the protuberation – or bulging out – of the bones making up the saddle joint caused by rhizarthrosis, wearing rigid non-malleable orthoses may lead to problems due to imprecise fitting. Thanks to the special innovative design of Chrisofix® saddle joint orthoses the aluminum core that makes up the frame of the orthosis provides adequate stability while maintaining the opportunity for precise and exact fitting.

This is especially important in case of saddle joint arthritis as it is often accompanied by the above mentioned deformity. If the orthosis does not fit exactly then pressure symptoms such as pain and skin irritation may occur at the sight of the deformity. The innovative design of Chrisofix® saddle joint orthoses ensure exact and precise fitting thereby preventing unwanted and uncomfortable potential symptoms caused by ill-fitting orthoses (pain caused by pressure and symptoms of skin irritation).

## **Saddle joint orthosis - REF\_37-38**

PREMIUM FORTE
- WITH LINER

### **INDICATION**

(Night use)

The night use version of the saddle joint orthosis serves to fixate the base joint of the thumb (MCP) and the saddle joint (CMC). It may also be used to good effect in cases of saddle joint arthritis for night time splinting and also for fixation of the metacarpal of the thumb or the saddle joint following injury, sprains or even in the rehabilitation phase following fractures. This product is also recommended for the treatment of De Quervain syndrome. It may also be utilized as complementary treatment to surgery performed on fractures of the thumb metacarpal (Benett, Rolando, Winterstein fractures). Also possible to wear during daytime.



		REF / Order number	
Size	Width of palm	Right	Left
XXXS (children small)	< 5 cm	371 121 172	381 121 172
XXS (children large)	5-5.9 cm	372 121 172	382 121 172
XS (extra small)	6-6.9 cm	373 121 172	383 121 172
S (small)	7-7.9 cm	374 121 172	384 121 172
M (medium)	8-9 cm	376 121 172	386 121 172
L (large)	9 cm <	378 121 172	388 121 172

# Wrist orthoses for Carpal Tunnel Syndrome



## What is carpal tunnel syndrome?

16

The nerves that control sensation and movement in our hands may become compressed at certain key points and this chronic pressure leads to the development of nerve entrapment syndromes called "tunnel syndromes". The most common of these is carpal tunnel syndrome, where the median nerve is compressed.

Stress and strain, the use of computers and other electronic devices, housework, sporting activities may all play a role in the development of carpal tunnel syndrome. Carpal tunnel syndrome has typical symptoms and it is important to recognize these symptoms in time and to take them seriously in order to retain pain free and adequate function of our hand.

# Who is most often affected by carpal tunnel syndrome?

Carpal tunnel syndrome is far more common in women than it is in men. The first symptoms of numbness and tingling may occur around the ages of 30-40, but most typically carpal tunnel syndrome becomes symptomatic over the age of 50.

# What are the most common symptoms of carpal tunnel syndrome?

The most common symptoms of carpal tunnel syndrome are numbness and tingling of the thumb, index, middle and half of the ring finger. In those affected by carpal tunnel syndrome tingling, numbness and over time loss of sensation may occur in this area. Patients also complain of nighttime pain, clumsiness, a burning sensation in the fingers and occasionally cramping of the hand. Over time muscle wasting may occur around the muscles of the thumb (called the thenar muscles).

Patients often experience the symptoms of numbness and painful tingling during the night, but these symptoms may also occur during the daytime while driving, using a computer or other electronic devices. Over time carpal tunnel syndrome may lead to irreversible numbness of the fingers and muscle wasting around the thumb.

# What can we do? How do Chrisofix® carpal tunnel orthoses help alleviate the problem?

The use of an adequate orthosis that keeps the wrist in the appropriate position to lessen the pressure on the median nerve plays a great role in the conservative (meaning without operation) treatment of carpal tunnel syndrome. By wearing the orthosis the bothersome or even painful symptoms occurring during the night and maybe even during the daytime maybe alleviated.

# How long should we wear the orthosis?

Depending on the severity of the carpal tunnel syndrome and the symptoms themselves wearing the orthosis may be necessary for a few weeks but more commonly for a few months, therefore comfort stability and hygienic considerations are paramount.

# Why Chrisofix® carpal tunnel orthoses?

In the conservative treatment of carpal tunnel syndrome (meaning without an operation) resting the wrist in the appropriate position to lessen the pressure on the compressed median nerve to alleviate painful symptoms is paramount.

Due to their innovative design Chrisofix® carpal tunnel orthosis secure the wrist in the appropriate position, thereby having a maximum effect on decreasing the pressure on the nerve and thereby on minimizing symptoms (pain, tingling, numbness) as well.

Thanks to the special innovative design of Chrisofix® carpal tunnel orthoses the aluminum core that makes up the frame of the orthosis provides adequate stability while maintaining the opportunity for precise and exact fitting. The innovative design of Chrisofix® saddle joint orthoses ensure exact and precise fitting thereby preventing unwanted and uncomfortable potential symptoms caused by ill-fitting orthoses (pain caused by pressure and symptoms of skin irritation).

# Carpal Tunnel Syndrome Orthosis - REF\_33-34 PREMIUM (Night use) FORTE - WITH LINER



#### INDICATION

The night use version of the Chrisofix® carpal tunnel orthosis serves to immobilise the wrist in the adequate position to relieve symptoms of carpal tunnel syndrome during the night. It is also recommended to wear in the instances of tenosynovitis, arthritis or other degenerative states of the wrist. In case of wrist pain or injury (i.e. sprain, distorsion of the ligaments etc.) to the wrist, or even following wrist surgery or following removal of cast fixation. The night-time orthosis provides a high degree of stability and good immobilization neccessary for treatment. Also possible to wear during daytime.

		REF / Order number		
Size	Width of palm	Right	Left	
S (small)	< 8 cm	334 111 175	344 111 175	
M (medium)	8-9 cm	336 111 175	346 111 175	
L (large)	9 cm <	338 111 175	348 111 175	

# **Additional wrist orthoses**



Wrist pain may have as many causes as it is common. Pain around the wrist may cause misery on a day to day basis for those who lead active lives and use digital technology and smart devices. Pain experienced around the wrist caused by arthritis usually affects the elderly, while wrist pain may also affect those leading an active, sporty lifestyle.

The use of digital smart devices, household chores, strain and physical labor may lead to the development of carpal tunnel syndrome, which is characterized by a burning and tingling pain experienced in the fingers both during the day and especially at night. Former or current injuries, fractures and post-operative states may also lead to wrist problems requiring treatment and splinting.

Should we experience wrist pain it is of paramount importance to have the appropriate orthosis to alleviate symptoms. There is a wide variety of Chrisofix® wrist orthoses available, so we are able to cater to a wide range of wrist problems. Chrisofix® wrist orthoses also provide a high standard of care.

# Universal working splint for wrist & Carpal Tunnel Syndrome - REF\_53 PREMIUM FORTE

(Day use)



#### **INDICATION**

The daytime version of the Chrisofix® carpal tunnel orthosis serves to fixate the wrist in the adequate position to relieve symptoms of carpal tunnel syndrome during the day. It is also recommended to wear in the instances of tenosynovitis, arthritis or other degenerative states of the wrist. In case of wrist pain, or injury (i.e. sprain, distorsion of the ligaments etc.) to the wrist, or even following wrist surgery or following removal of cast fixation. The day time orthosis provides a high degree of stability and good immobilisation, while retaining a high degree of freedom of the hand to perform a large variety of tasks. Also possible to wear during night-time.

Size	Width of palm	REF / Order number
S (small)	< 8 cm	534 111 181
M (medium)	8 cm <	536 111 181

**INDICATION** 

WITH LINER

Fixation and/or immobilization of the wrist in, as well as after injuries (e.g. distortion), surgery and fixation with plaster of Paris. Conservative treatment in inflammation and degenerative diseases of the wrist (without involvement of the thumb).



		REF / Order number		
Size	Width of palm	Right	Left	
S (small)	< 8 cm	314 111 105	324 111 105	
M (medium)	8-9 cm	316 111 105	326 111 105	
L (large)	9 cm <	318 111 105	328 111 105	

# Scaphoid fracture orthosis - REF\_35-36

# PREMIUM FORTE - WITH LINER

### INDICATION

The Chrisofix® scaphoid orthosis may be used as a complementary measure to surgical treatment of scaphoid fractures, or following reconstructive surgery of scaphoid pseudoarthritis.



		REF / Order number	
Size	Width of palm	Right	Left
S (small)	< 8 cm	354 111 182	364 111 182
M (medium)	8-9 cm	356 111 182	366 111 182
L (large)	9 cm <	358 111 182	368 111 182

# Ulnar wrist orthosis - REF\_39

## **PREMIUM**

#### **INDICATION**

Fixation of the wrist in case of distortions, stable fractures, after surgery or following initial fixation with gypsum (plaster of Paris). Conservative treatment of tendonitis/tendovaginitis (without involvement of the thumb) as well as degenerative or inflammatory conditions of the wrist. Adjuvant therapy of reflex sympathetic dystrophy (SUDECK). Intermittent fixation during rehabilitation after surgery.



Size	Width of palm	REF / Order number
XS (extra small)	< 7 cm	392 111 107
S (small)	7-8 cm	394 111 107
M (medium)	8-9 cm	396 111 107
L (large)	9 cm <	398 111 107

# Volar wrist orthosis - REF\_70

### **PREMIUM**

#### INDICATION

Fixation of the wrist after injuries (e.g. distorsion), surgery and fixation with plaster of Paris. Conservative treatment in tendonitis, inflammation and degenerative diseases of the wrist even as resting splint. Rehabilitation phase after hand surgery.

PREMIUM

SHELL





**DISINFECTABLE SHELL - page 29.** 

Size	Width of palm	REF / Order number	REF / Order number
XXXS (children small)	< 5 cm	701 111 106	701 111 146
XXS (children large)	5-5.9 cm	702 111 106	702 111 146
XS (extra small)	6-6.9 cm	703 111 106	703 111 146
S (small)	7-7.9 cm	704 111 106	704 111 146
M (medium)	8 cm <	706 111 106	706 111 146

# Universal resting shell/orthosis for hand & wrist (tenosynovitis) - REF\_71

#### **INDICATION**

Fixation or immobilisation of the wrist, hand and long fingers after injuries (e.g. distorsion), surgery and fixation with plaster of Paris. Conservative treatment in tendonitis, inflammation and degenerative diseases of the wrist, hand and long fingers even as resting splint. Rehabilitation phase after hand surgery.



		- WITH LINER	
Size	Length of hand	REF / Order number	REF / Order number
XXXS (children small)	< 14.5 cm	711 111 176	711 111 146
XXS (children large)	14.5-15.5 cm	712 111 176	712 111 146
XS (extra small)	15.5-16.5 cm	713 111 176	713 111 146
S (small)	16.5-17.5 cm	714 111 176	714 111 146
M (medium)	17.5 cm <	716 111 176	716 111 146

PREMIUM FORTE

**SHELL** 

SHELL

**DISINFECTABLE SHELL - page 29.** 

# Shell/orthosis for paresis (hand & wrist & thumb) - REF\_73-74

#### INDICATION

Fixation or immobilisation of the wrist, hand, long fingers and thumb after injuries (e.g. distorsion), surgery and fixation with plaster of Paris. Conservative treatment in tendonitis, inflammation and degenerative diseases of the wrist, hand, long fingers and thumb even as resting splint. Rehabilitation phase after hand surgery. Recommended for patients with paresis of the wrist, long fingers and thumbs.



		REF / Order number		REF / Ord	er number
Size	Length of hand	Right	Left	Right	Left
XS (extra small)	< 16.5 cm	733 111 179	743 111 179	733 111 149	743 111 149
S (small)	16.5-17.5 cm	734 111 179	744 111 179	734 111 149	744 111 149
M (medium)	17.5 cm <	736 111 179	746 111 179	736 111 149	746 111 149

PREMIUM FORTE

\_ WITH I INER

**DISINFECTABLE SHELL - page 29.** 

# Orthosis for spasticity (hand & wrist & thumb) - REF\_73-74 PREMIUM FORTE PLUS - WITH LINER

Fixation or immobilisation of the wrist, hand, long fingers and thumb after injuries (e.g. distorsion), surgery and fixation with plaster of Paris. Conservative treatment in tendonitis, inflammation and degenerative diseases of the wrist, hand, long fingers and thumb even as resting splint. Rehabilitation phase after hand surgery. Recommended for patients with spasticity of the wrist, long fingers and thumb.



		REF / Order number	
Size	Length of hand	Right	Left
XS (extra small)	< 16.5 cm	733 111 159	743 111 159
S (small)	16.5 – 17.5 cm	734 111 159	744 111 159
M (medium)	17.5 cm <	736 111 159	746 111 159

# **Elbow orthoses**



It may be necessary to fixate the elbow following an injury or an operation or as a result of stress and strain. In these cases it is quite fundamental that appropriate stability is provided, but it is also highly important to be able to wear an orthosis that provides comfort as well, as fixation of the elbow joint is a highly uncomfortable state in itself.

The Chrisofix® elbow orthoses cater to both sets of aspects, and we also provide a model that allows for a certain degree of elbow motion when it is indicated.

# Universal elbow & wrist shell/orthosis 90°-110° - REF\_77



		PREMIUM FORTE - WITH LINER	SHELL
Size	Elbow – finger base	REF / Order number	REF / Order number
XXXS (children small)	< 20 cm	771 111 177	771 111 147
XXS (children large)	20–22 cm	772 111 177	772 111 147
XS (extra small)	22-26 cm	773 111 177	773 111 147
S (small)	26-30 cm	774 111 177	774 111 147
M (medium)	30-34 cm	776 111 177	776 111 147
L (large)	34 cm <	778 111 177	778 111 147

**DISINFECTABLE SHELL - page 29.** 

# **Resting orthoses for lower limb**



It may be necessary to fixate the ankle, the foot and/or the knee following an injury or an operation or as a result of stress and strain. In these cases it is quite fundamental that appropriate stability is provided, but it is also highly important to be able to wear an orthosis that provides comfort as well, as fixation of the lower limb is a highly uncomfortable state in itself.

The Chrisofix® resting orthoses for the lower limb cater to both sets of aspects.

# Universal resting shell/orthosis for foot & ankle - REF\_75

#### INDICATION

Short-term (for the rest period) fixation of the foot and/or ankle region following injuries and/or surgery.



**DISINFECTABLE SHELL - page 29.** 

		- WITH LINER	SUELL
Size	Length of foot	REF / Order number	REF / Order number
XXXS (children small)	< 18 cm	751 111 194	751 111 144
XXS (children large)	18 – 20 cm	752 111 194	752 111 144
XS (extra small)	20 – 22 cm	753 111 194	753 111 144
S (small)	23 – 24.5 cm	754 111 194	754 111 144
M (medium)	25 – 27.5 cm	756 111 194	756 111 144
L (large)	27.5 cm <	758 111 194	758 111 144

**PREMIUM** 

CHELL

# **Resting shell/orthosis for lower limb - REF\_78**

#### **INDICATION**

Short-term (for the rest period) fixation of the knee, ankle and foot following injuries and surgery.



		PREMIUM	SHELL
Size	Length of foot	REF / Order number	REF / Order number
S (small)	< 56 cm	784 111 104	784 111 144
M (medium)	67 cm	786 111 104	786 111 144
L (large)	76 cm <	788 111 104	788 111 144

# Universal resting shell/orthosis for foot & ankle - open heel - REF\_82

#### **INDICATION**

Short-term (for the rest period) fixation of the knee, ankle and foot following injuries and surgery.



		PREMIUM - WITH LINER	SHELL
Size	Length of the foot	REF / Order number	REF / Order number
XXXS (children small)	< 18 cm	821 111 193	821 111 143
XXS (children large)	18 – 20 cm	822 111 193	822 111 143
XS (extra small)	20 – 22 cm	823 111 193	823 111 143
S (small)	23 – 24.5 cm	824 111 193	824 111 143
M (medium)	25 – 27.5 cm	826 111 193	826 111 143
L (large)	27.5 cm <	828 111 193	828 111 143

# Universal resting shell/orthosis for knee - REF\_76

#### **INDICATION**

Short-term (for the rest period) fixation of the knee following injuries and surgery.



**DISINFECTABLE SHELL - page 29.** 

		- WITH LINER	
Size	Length of the splint	REF / Order number	REF / Order number
XXXS (children small)	36 cm	761 111 194	761 111 144
XXS (children large)	43 cm	762 111 194	762 111 144
XS (extra small)	50 cm	763 111 194	763 111 144
S (small)	56 cm	764 111 194	764 111 144
M (medium)	67 cm	766 111 194	766 111 144
L (large)	76 cm	768 111 194	768 111 144

**PREMIUM** 

**SHELL** 

# **Infusion splints**



Administering medication or fluid through an arterial or venous cannula is an integral part of both hospital and outpatient care. For this to be successful it is of fundamental importance that the position of the cannula stays intact both during and between therapeutic sessions, while ensuring patient comfort. This is especially true for dialysis patients, who undergo therapy 2-3 times a week, each session lasting several hours.

Chrisofix ® infusion splints are great tools in these situations. Chrisofix® infusion splints ensure the position of the cannulas. The innovative design of Chrisofix® infusion splints ensures exact and precise fitting thereby preventing unwanted and uncomfortable potential symptoms caused by ill-fitting orthoses. The wide variety of Chrisofix® infusion splints provides a quality solution for both hospital and outpatient care.

## Infusion shell/splint for babies & small children - REF\_40

#### **INDICATION**

24

Recommended for temporary immobilisation of the wrist to help ensure uninterrupted flow of an i.v. drip. Recommended to compliment with bandaging. Recommended for pediatric use.



		SIANDAKD	SHELL
Size	Length of splint	REF / Order number	REF / Order number
XXXS (children small)	11 cm	401 114 101	401 012 141
XXS (children large)	17.5 cm	402 114 101	402 012 141
XS (extra small)	22 cm	403 114 101	403 012 141

DISINFECTABLEE

# Infusion splint for adults - REF\_66 PREMIUM

#### **INDICATION**

Recommended for temporary fixation of the wrist to help ensure uninterrupted flow of an i.v. drip. Recommended to compliment with bandaging.



Size	Length of the splint	REF / Order number
S (small)	24.5 cm	664 111 101

## Dialysis shell - REF\_61

# DISINFECTABLE SHELL - WITH LINER

#### **INDICATION**

Recommended for temporary fixation of the wrist and elbow to help ensure uninterrupted flow during dialysis. Recommended to compliment with bandaging.



Size	Length of the splint	REF / Order number
XXS (children large)	45 x 18 cm	612 317 141
S (small)	53 x 20 cm	614 317 141
M (medium)	53 x 24 cm	616 317 141

# Arterial infusion shell - REF\_62

SHELL

#### **INDICATION**

Recommended for temporary fixation of the wrist to help ensure uninterrupted flow in case of arterial cannulation. Recommended to compliment with bandaging.



Size	Length of the splint	REF / Order number
S (small)	33 cm	624 117 141

## Cubital, IV-line shell - REF\_63

**SHELL** 

#### INDICATION

Recommended for temporary fixation of the elbow to help ensure uninterrupted flow of an i.v. drip. Recommended to compliment with bandaging.



Size	Length of the splint	REF / Order number
M (medium)	34.5 cm	636 117 141

# Splint for radial artery cannula - REF\_67

**PREMIUM FORTE** 

#### **INDICATION**

Splint for radial artery cannula.



Size	Width of palm	REF / Order number
M (medium)	8 cm <	676 111 181

# Rib splint

REF\_60

World-class Orthoses
Developed and Patented in
Switzerland

**Patent No: 701845B1** 



Size	Dimensions	REF / Order number
S (small)	12 X 17 cm	604 226 104
L (large)	17 x 17 cm	608 226 104

#### What should we know about rib fractures and contusions of the chest?

Contusions of the chest or rib fractures may occur following vehicle accidents, falls or sport activities. Chest contusions or rib fractures require an examination by a doctor and may also require hospitalization. Contusions of the chest or rib fractures are painful, and pain worsens during breathing motion.

Severity and complications range on a wide scale. If we take into consideration that we take over 20 000 breaths per day it becomes apparent that both chest contusions and rib fractures are highly uncomfortable and painful states. Decreasing the pain not only frees the injured person from uncomfortable symptoms, but also promotes good ventilation or "airing" of the lungs.

## Who is most often affected by rib fractures or chest contusions?

Contusions of the chest or rib fractures may occur following vehicle accidents, falls or sport activities. As a consequence, there is no age group that may not be affected by these injuries. Small children have a more "elastic" chest, therefore chest contusions are more common than rib fractures in this group compared to others.

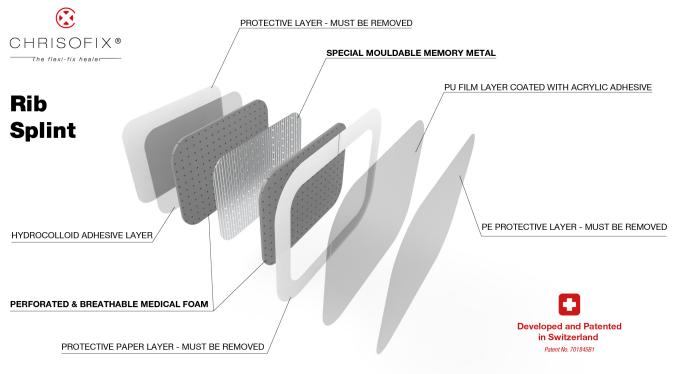
### What can we do? How do Chrisofix® rib splint help?

In case of chest contusions or rib fractures coughing, sneezing, strain or exertion (changing body position, using the toilet) may provoke significant pain, thereby making these everyday occurrences miserable. Not to mention rest pain and the pain provoked by breathing motion during every single breath. Counting an average of 20 000 breaths per day, the injured person's pain may be provoked just as many times. According to type, severity and possible complications of the injury itself (bleeding, infection etc.) treatment may vary, however it may be stated that most patients do not require surgical treatment. The cornerstones of non-operative treatment (i.e., conservative treatment, meaning without surgery) are pain relief and ensuring adequate "depth" of breaths to secure good ventilation or "airing" of the lungs.

Patients may try to relieve their pain by lying on their injured side or pressing their palms against the injured area, but these measures are neither comfortable not sustainable long-term. A much more effective solution is using splints and pain medication.

### How long should we wear the Chrisofix® rib splint?

The length of treatment depends on the type and severity of the injury, and how long the patient suffers from symptoms. The most severe pain is experienced by patients with rib fractures or chest contusions in the first few weeks, following which a decrease in symptoms may be expected. However, freedom from pain may only be achieved following months in some cases. The injured patients are in need of pain relief and support to achieve adequately deep breaths during this period.



## Why Chrisofix® rib splints?

Patients often try to manage their pain by applying pressure to the injured area using their hand, by lying on their injured side or by using belts. The worldwide patented innovation of Chrisofix®, the rib splint, mimics this "pressure applied by the hand". While wearing the Chrisofix® rib splint the movements of the ribs are decreased thereby decreasing pain. Less pain helps the injured patient take adequately deep breaths to promote ventilation or "airing" of the lungs. This may promote shorter need for hospitalization, decrease the chance for certain complications, and may even decrease the need for pain medication.

Another advantage of the Chrisofix® rib splint is that it is radiolucent (meaning it is "see through" on an X-ray), so it does not "cover up" injures, and X-ray examinations may be performed while wearing it during check-ups. It is also waterproof, meaning that the person wearing it is able to take a shower, making every day hygiene more comfortable. Further advantage of this splint is that it may be worn for about a full week, during which it is not necessary to change it, so it continuously produces its effect in terms of pain relief during this time.

# First aid splints



In an emergency situation it is fundamentally important to fixate the injured limb. The injury may occur during sports or sporting events, it may be a household or a motor vehicle accident. Primary fixation of the injured limb is of paramount significance during the first steps of first aid, outpatient and hospital care.

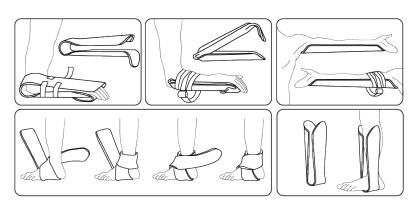
There are many criteria for these splints to meet - they must ensure precise fitting, wide range of application (hand, ankle, forearm etc.) and adequate stability. In a professional setting repeated use and disinfection are also significant criteria. The Chrisofix® wind-up first aid splint sortiment provides all of the above at a high standard.

# First aid wind-up splint - REF\_04

## **DISINFECTABLE SHELL**

#### INDICATION

Recommended to use in a first aid situation for temporary fixation of an injured elbow, forearm, wrist, hand, knee, leg (cruris), ankle or foot. Recommended to compliment with bandaging.



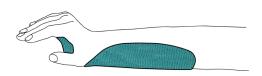


Size	Length of splint	REF / Order number
S (small)	90 X 110 cm	044 022 101
M (medium)	90 x 190 cm	046 022 101

# **Disinfectable shells**

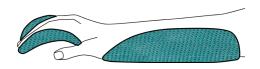
Corrugated aluminium core embedded in polyethylene foam and covered with polyethylene foil on both sides. This allows not only the washing but also the disinfection of the products, making them suitable for multi-patient use. They are delivered without straps.

### **Volar wrist shell - REF\_70 - WITH LINER**



Size	Width of palm	REF / Order number
XS (extra small)	< 6.9 cm	703 317 136
S (small)	7-7.9 cm	704 318 136
M (medium)	8 cm <	706 318 136

## Universal resting shell for hand & wrist - REF\_71 - WITH LINER



Size	Length of hand	REF / Order number
XS (extra small)	< 16.5 cm	713 317 136
S (small)	16.5-17.5 cm	714 318 136
M (medium)	17.5 <	716 318 136

## Orthosis for paresis (wrist & hand & thumb) - REF 73-74 - WITH LINER



		REF / Ord	er number
Size	Length of hand	Right	Left
XS (extra small)	< 16.5 cm	733 317 139	743 317 139
S (small)	16.5 – 17.5 cm	734 318 139	744 318 139
M (medium)	17.5 cm <	736 318 139	746 318 139

## **Universal elbow shell 90° - REF 79 - WITH LINER**



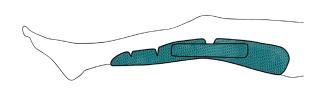
Size	Elbow – finger base	REF / Order number
XS (extra small)	22-26 cm	793 318 139
S (small)	26-30 cm	794 318 139
M (medium)	30-34 cm	796 318 139

## **Universal resting orthosis for foot & ankle - REF 75**



Size	Length of foot	REF / Order number
XS (extra small)	< 22 cm	753 317 145
S (small)	23 – 24.5 cm	754 318 145
M (medium)	25 cm <	756 318 145

# **Universal resting orthosis for knee - REF 76**



Size	Length of splint	REF / Order number
XS (extra small)	50 cm	763 317 145
S (small)	56 cm	764 318 145
M (medium)	67 cm	766 318 145

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