

Orthoses are our passion

# FUNCTIONAL ORTHOSES FOR KNEES FROM MEDIROYAL









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# New knee series from Mediroyal

Two years ago we started our large development project with focus on designing a new line of knee braces. This work has been done closely together with our largest customers. We have focused on many different suggestions and comments on material properties,

anatomical fit, design and functionality for the end user. The results are three new branding groups based on the material properties and characteristics; NRX<sup>®</sup>, ARX<sup>®</sup> and CRX<sup>®</sup>.

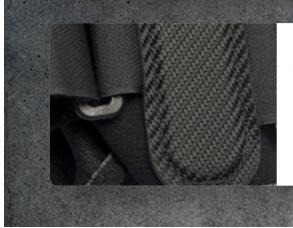
Aside from the new materials we have also designed a new anatomical fit with a larger thigh volume to better fit conical thighs. In addition to this we have also developed a new series of knee hinges that are modular and can be exchanged seamless between each of the hinged models.

#### A new hook and loop closure system

We have designed a new hook and loop closure system where the soft part has been integrated into the brace. This makes that area completely elastic instead of the restricted elasticity that the normal area provides. The hook part is made from a micro hook that has a tongue made from micro fleece. The tongue can be cut individually depending on how much hook that should be exposed. The micro hook in combination with the integrated loop part provides excellent shear force strength and the lowest hook and loop closure profile on the market. The design has been design protected in several countries around the world.



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#### New hinge pockets

To provide higher tear strength and a lower profile we have developed a new nylon material that has the same set-up as carbon fiber. We have used a unique nylon fiber composition with different densities to weave a thin and very strong material. This material has been coated to fixate the fibers and is then cut by laser to effectively seal the ends.

# New updated knee hinges

We have designed a completely new modular knee hinge system that can be switched between the different models seamless. All the hinges have the same dimensions, making it easy to switch and upgrade the knee brace in just a few minutes. The hinges are made from the stable and lightweight alloy A6061 that are used in the aircraft industry. All hinges have been surface coated to have maximum resistance to corrosion.





To provide maximum protection we have designed completely new hinge covers made from Kevlar<sup>®</sup>. It's extremely tear resistant and is normally used in bullet proof vests as well as in the aircraft industry.

#### **New friction system**

All models have an integrated anti-migration system made from a thin and elastic thermo-polymer film that has been laminated directly into the brace, often over the thigh area. This provides a low profile and elastic area that provide superior suspension. We have used the same system to enhance the effect of our patella pads. The film has been laminated on top of the pads to provide a more efficient support.



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# Material

# **Mediroyal NRX®**

This is our new line for knee braces made from 100% CRbased materials that has a good heat insulation effect. The new NRX® material is mineral based, completely latex free and tested for skin irritation by the external institute SGS. It's lighter in weight because of the high amount of encapsulated micro air cells, which makes the material more elastic but also better insulation effect than traditional neoprene materials. The higher elasticity makes the brace conform better to the joints during activity. The higher heat insulation effect provides better blood circulation locally and makes the joint glide better. The heat effect can also decrease pain during inflammations. The NRX® products are specially suited for intense activities like sports but also for patients suffering from osteoarthritis.

NRX

X N Z

Z

- Higher elasticity
- Micro air cells providing a better insulation
- Tested for skin irritations by SGS

## **Mediroyal ARX®**

This is our new line for knee braces with ventilation. The new ARX® materials have very good ventilation, are latex free, low weight, good compression, doesn't absorb moisture and are certified according to Oeko-Tex 100 and BlueSign environmental standards.

The ARX® products are suitable for patients that want to remain active but without feeling warm.

- Fully ventilated
- No moisture absorption
- Oeko-tex and BlueSign certified materials

# **Mediroyal CRX®**

This is our new line of knee braces that are made from a flat knitted compression material. The new CRX® material has a spiral elastic yarn that provides a higher elasticity but with the same high compression. Each brace has three individual compression zones to control swelling. The moisture transportation has been improved with the new yarns. We have also created PLUS-sizes as an alternative to the standard sizes. The PLUS-sizes have a wider thigh area and are available from M-XXXL in selected models.

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NEPTUNE

The CRX<sup>®</sup> products are suitable for active patients with local swelling over the joint area, that otherwise can provide problems with range of motion.

- Graded compression
- Ventilated
- New PLUS-sizes with a wider thigh area

#### Mediroyal Neptune™

This is our new material that we use in the knee fold on all NRX<sup>®</sup> and ARX<sup>®</sup> models. It's a hydrodynamic material that has a breathable membrane with an inside surface that is both quick drying and very comfortable.

- · Breathable membrane
- Hydrodynamic
- $\cdot$  Quick drying



# **Knee hinges**

# Double Hinge 33 cm

#### MR4996

This low weight and stable knee hinge has a dual pivot center. It has a stop integrated at 0 degrees extension. The hinge arms are made from A6061 aluminium and the center part is made from stainless steel. The washes in the center are made from Teflon® that provides a low friction without the need for any grease.

We recommend using bending irons when adjusting the hinge arms. The hinge has been surface coated for maximum corrosion resistance. Sold in pairs.

# Active Hinge 33 cm

#### **MR4997**

This hinge has been designed for activity. It's lightweight, stable and very durable with a bilateral design. The range of motion can be adjusted by using stops made from injection molded nylon. The stops are specifically designed for extension or flexion. The extension stops are; 0°, 10°, 20°, 30° and 40°. The flexion stops are; 45°, 60°, 75° and 90°. The complete hinge is made from A6061 aluminium and the washers are made from Teflon® providing a grease free hinge with low friction.

We recommend using bending irons when adjusting the hinge arms. The complete hinge is surface coated for maximum corrosion resistance. Sold in pairs including the stops.

Extension stop: 0°, 10°, 20°, 30°, 40° Flexion stop: 45°, 60°, 75°, 90°

## **ROM-led – Short and long**

#### MR4998 – Short 33 cm MR4999 – Long 40 cm

These two knee hinges are designed to provide an effective range of motion control, both in extension and flexion, during rehabilitation. The hinge can be adjusted in extension, flexion as well as blocked completely if needed. The pins to adjust the hinge with are attached under the plastic cap by silicone straps. They are made from milled stainless steel which makes them extremely durable. The hinge arms and the center piece are made from A6061 aluminium with washers in the joint made from Teflon<sup>®</sup>. We recommend using bending irons when adjusting the hinge arms. The complete hinge is surface coated for maximum corrosion resistance. Sold in pairs.

Extension stop: 0°, 15°, 30°, 60°, 90° Flexion stop: 90°, 60°, 30°, 15°, 0° Låst: 0°, 15°, 30°, 60°, 90°







# **Hyper Extensions Straps**

#### MR4994 – Black MR4995 – Beige

A set of two hyper extension straps in fixed lengths. The hook tab is made from injection molded micro hook. Available both in black and beige.

Size	XS	S	М	L	XL	XXL	XXXL
Upper cm	40	43	46	48	51	54	58
Lower cm	44	47	50	52	55	59	63



# Kevlar<sup>®</sup> Cover Double Hinge

#### MR4993

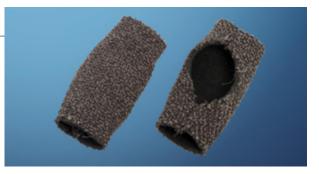
Hinge covers for MR4996 Double Hinge, made from laminated CR and Kevlar®. Sold in pairs.



# Kevlar<sup>®</sup> Cover Active Hinge

#### MR4992

Hinge covers for MR4997 Active Hinge, made from laminated CR and Kevlar<sup>®</sup>. Sold in pairs.



# Kevlar<sup>®</sup> Cover ROM-Hinge

#### MR4991

Hinge covers for the MR4998 and MR4999 ROM-hinges. Made from Kevlar<sup>®</sup>. Sold in pairs.



# NRX<sup>®</sup> Model program

## **NRX®** Basic Knee

#### NRX401

A light knee support, made from the NRX<sup>®</sup> material, with spiral stays on both sides. It has an anatomical design with an integrated friction system over the thigh. The knee fold has the breathable Neptune material for optimal comfort. The closure over the thigh and calf are made from micro hook and loop.

- · Spiral stays on both sides
- · Integrated friction system over the thigh
- · Adjustable over the thigh and calf

**Indications:** Mild knee instability, inflammation or osteoarthritis in the knee joint.



Size	XS	S	М	L	XL	XXL	XXXL	7
cm	29–32	32–35	35–38	38–42	42-46	46–50	50-54	M

# NRX<sup>®</sup> Basic Open Patella

#### NRX402

This is a knee support that provides a light support to both the knee and the knee cap. It has spiral stays on the sides and a patella ring made from the NRX®-material. The design is anatomical with an integrated friction system in the thigh part. The knee fold has the breathable and comfortable Neptune material for. The closure over the thigh and calf are made from micro hook and loop.

- Patella ring made from NRX® material
- · Spiral stays on both sides
- · Adjustable over thigh and calf

**Indications:** Milder knee and patella instabilities, inflammations and osteoarthritis in the knee joint.

Size	XS	S	М					$\overline{\langle}$
cm	29–32	32–35	35–38	38–42	42–46	46–50	50–54	M



# **NRX®** Liga Spring

#### NRX423

This knee brace provides a good and flexible support to the knee. It has double spiral stays on the sides along with two elastic straps. The elastic straps are attached against the spiral stays with hook and loop, making it possible to position the lower strap medially and the upper one laterally to provide a diagonal support over the joint. The patella pad is made from NRX® material and provides an effective support. The knee brace has an anatomical design with an integrated friction system over the thigh area to prevent migration during activity. The knee fold has the breathable Neptune material for optimal comfort. The closure over the thigh and calf are made from micro hook and loop.

- · Double spiral stays on each side of the knee
- · Elastic straps for added support
- · Patella pad made from NRX® material

**Indications:** Mild to moderate instability in the knee joint due to ligament or meniscus injuries, patella instability, inflammations or osteoarthritis in the knee joint.

Size	XS	S	М	L	XL	XXL	XXXL	$\overline{\mathbf{x}}$
cm	29–32	32–35	35–38	38–42	42–46	46–50	50-54	M

# NRX<sup>®</sup> Liga Light

#### NRX412

A medium stable knee brace fitted with the MR4996 double hinge made from aluminium and two elastic straps. The hinge pockets are made from the new carbon-nylon material that provides a low profile and excellent durability. The hinge covers are made from Kevlar® which provides a good protection. The two elastic straps are attached with hook and loop and can be positioned either lateral or medial. The patella pad is made from the NRX® material and provides an excellent support to the knee cap. The knee brace has an anatomical design with an integrated friction system over the thigh area to prevent migration during activity. The knee fold has the breathable Neptune material for optimal comfort. The closure over the thigh and calf are made from micro hook and loop.

- Fitted with MR4996 Double hinge in aluminium
- Hinge covers in Kevlar®
- · Elastic detachable straps

**Indications:** Mild to moderate instability in the knee joint due to ligament or meniscus injuries, patella instability, inflammations or osteoarthritis in the knee joint.

Size	XS	S	М	L	XL	XXL	XXXL	$\overline{\mathbf{A}}$
cm	29–32	32–35	35–38	38–42	42–46	46–50	50–54	M





## NRX<sup>®</sup> Liga X Wrap

#### **NRX414**

A stable knee brace with a full length anterior closure which makes application easier for patients that can't pull the brace over the foot and up the leg. The closure is made from micro hook with the loop part integrated onto the surface of the brace. This greatly increases the size range. It's fitted with the MR4996 double hinge, made from aluminium, along with hinge covers made from Kevlar<sup>®</sup>. There are adjustable, non elastic straps positioned over the thigh and calf sections of the brace. The brace is also fitted with a hyper-extension control strap that effectively controls hyper extension of the knee joint. The thigh part has an integrated friction system that prevents migration during activity. The knee fold has the breathable Neptune material that dries quickly and provides optimal comfort.

- Full length anterior closure
- Fitted with MR4996 Double hinge in aluminium
- Hyper-extension strap

**Indications:** Indications: Instability in the knee joint due to injury to the cruciate ligaments, collateral ligaments or the meniscus, hyper extension problems, inflammations or osteoarthritis.

Size	XS	S	М	L	XL		XXXL	$\overline{\mathbf{x}}$
cm	29–32	32–35	35–38	38–42	42–46	46–50	50-54	M



### NRX<sup>®</sup> Liga X

#### NRX411

A stable knee brace fitted with our new MR4997 Active hinge, made from A6061 aluminium and that can be controlled in both extension and flexion. The hinge stops are made from injection molded nylon and can stop extension in 0°, 10°, 20°, 30° and 40° as well as flexion 45°, 60°, 75° and 90°. The hinge covers have a special design which makes it possible to adjust the range of motion when the hinge is fitted in the brace. The covers are open on the back side and can slide forward or backward to access the opening in the hinge. The hinge pockets are made from the new carbon-nylon material that provides a low profile and excellent durability. The hyper extension strap in the back of the brace has a low profile and can be adjusted in the front by micro hook tabs. The thigh and shin part of the brace are fitted with adjustable non elastic straps. The patella pad is made from the new NRX® material that provides good support to the knee cap. The inside of the thigh part has an integrated friction system that prevents migration during activity. The knee fold has the breathable Neptune material for optimal comfort. The closure over the thigh and calf are made from micro hook and loop.

- Fitted with MR4997 Active hinge with extension and flexion stops
- Hinge covers in Kevlar®
- Hyper-extension strap

**Indications:** Instability in the knee joint due to injury to the cruciate ligaments, collateral ligaments or the meniscus, hyper extension problems, patella instability, inflammations or osteoarthritis.

Size	XS	S 32–35	М	L	XL	XXL	XXXL	7
cm	29–32	32–35	35–38	38–42	42-46	46–50	50-54	M



# NRX<sup>®</sup> Liga X Hybrid

#### **NRX450**

This is a stable hybrid brace with completely adjustable thigh part and a circular lower part that makes it suitable for patients with conical thighs. The brace is fitted with our new MR4997 Active Hinge, made from A6061 aluminium, which can be adjusted in extension and flexion by using injection moulded stops. The hinge can be adjusted in the following degrees; Extension 0°, 10°, 20°, 30° and 40° and Flexion 45°, 60°, 75° and 90°. The hinge covers have a special design which makes it possible to adjust the range of motion when the hinge is fitted in the brace. The covers are open on the back side and can slide forward or backward to access the opening in the hinge. The hinge pockets are made from the new carbon-nylon material that provides a low profile and excellent durability. The hyper extension strap in the back of the brace has a low profile and can be adjusted in the front by micro hook tabs. The thigh and shin part of the brace are fitted with adjustable non elastic straps. The inside of the thigh part has an integrated friction system that prevents migration during activity. The knee fold has the breathable Neptune material for optimal comfort. The closure over the thigh and calf are made from micro hook and loop.

- Hybrid model with an adjustable thigh and circular lower part
- Fitted with MR4997 Active hinge with extension and flexion stops
- · Hyper-extension strap

**Indications:** Instability in the knee joint due to injury to the cruciate ligaments, collateral ligaments or the meniscus, hyper extension problems, inflammations or osteoarthritis.

Size	XS	S	М	L	XL	XXL	<
cm	29–32	32–35	35–38	38–42	42-46	46–50	

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# NRX<sup>®</sup> Patella Tendon

#### NRX420

This is a small, discreet and effective brace for patella tendon problems. It has a low profile design to allow you to wear it under clothes. In the front side over the patella tendon, there is a pad with a surface friction material to provide a more effective support. The pad is integrated into the brace and has two straps attached. The straps make it possible to adjust the anterior pressure over the patella tendon without disturbing the circulation in the knee fold. The straps thread through the D-rings on the side and are then attached on the lower front of the brace. The thigh part has a friction material integrated that prevents migration during activity. The knee fold area has the breathable Neptune material for optimal comfort. The closure on the brace is made of micro hook and loop.

- Small and effective design
- Anterior support without cutting off circulation in the knee fold
- Friction material over pad and thigh part

**Indications:** Os Schlatters, jumper's knee or general patella tendon problems.

Size	XXS	XS	S	М	L	XL	XXL	$\checkmark$
cm	26–29	29–32	32–35	35–38	38–42	42–46	46–50	M





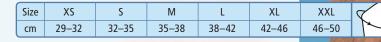
## **NRX®** Patella Luxation

#### NRX430

A small, low profile and effective knee brace for patella subluxation, which has been designed to be able to wear under clothes. The brace has a bilateral design which means that it can be used left or right, medially or laterally just by turning the brace. The patella pad has two elastic straps integrated that provide a direct force to the patella. To further increase the effect of the pad it has been laminated with a friction material that also works as an antisliding surface, securing the pad in position during activity. The hook and loop closure on the brace and straps are made with micro hook and loop. The loop surface has been integrated into the side of the brace, allowing a larger size variation in each brace. The elastic straps can be attached on the surface of the brace. The knee fold is made from the breathable Neptune material which provides an optimal comfort for the user.

- Patella pad with integrated elastic straps
- Friction material on the pad increase the effect and support
- Breathable Neptune material placed in the knee fold

**Indications:** Subluxation or luxation of the patella, patellofemoral pain syndrome or anterior knee pain caused by patella tracking problems.



# NRX<sup>®</sup> Patella Tendon Long

#### NRX421

This is a longer brace for patella tendon problems. It's fitted with spiral stays on the side and a fixed patella tendon pad that is integrated with two elastic straps that are attached on the backside of the brace. The pad has a friction material placed on the top to provide a better and more effective support. The angle of the elastic straps allows a slight lifting of the patella. Over the thigh part of the brace there is an integrated friction material that prevents migration during activity. The knee fold has the breathable Neptune material for optimal comfort.

- · Provides a lift and unloads the patella tendon
- $\cdot\;$  Friction material over the pad and the thigh strap
- · Breathable Neptune material in the knee fold

**Indications:** Os Schlatters, jumper's knee or general patella tendon problems.

ſ	Size	XS	S	М	L	XL	XXL	XXXL	$\overline{}$
	cm	29–32	32–35	35–38	38–42	42-46	46–50	50-54	M



# NRX<sup>®</sup> Patella Luxation Long

#### NRX431

This is a long knee brace for patella tracking problems. It has spiral stays on the sides and a lateral patella pad that provides an effective support to the knee cap. The patella pad has an integrated friction surface that provides a very effective support. The model is designed with a lateral patella support which means that it's available in both left and right. If the support would be needed medially, it's just to order left for the right knee and right for the left. The elastic straps are attached on the opposite side of the patella pad, providing a dynamic 3-point lever system. The closure over the thigh and calf are made from micro hook and loop. The knee fold is made from the breathable Neptune material which provides an optimal comfort for the user.

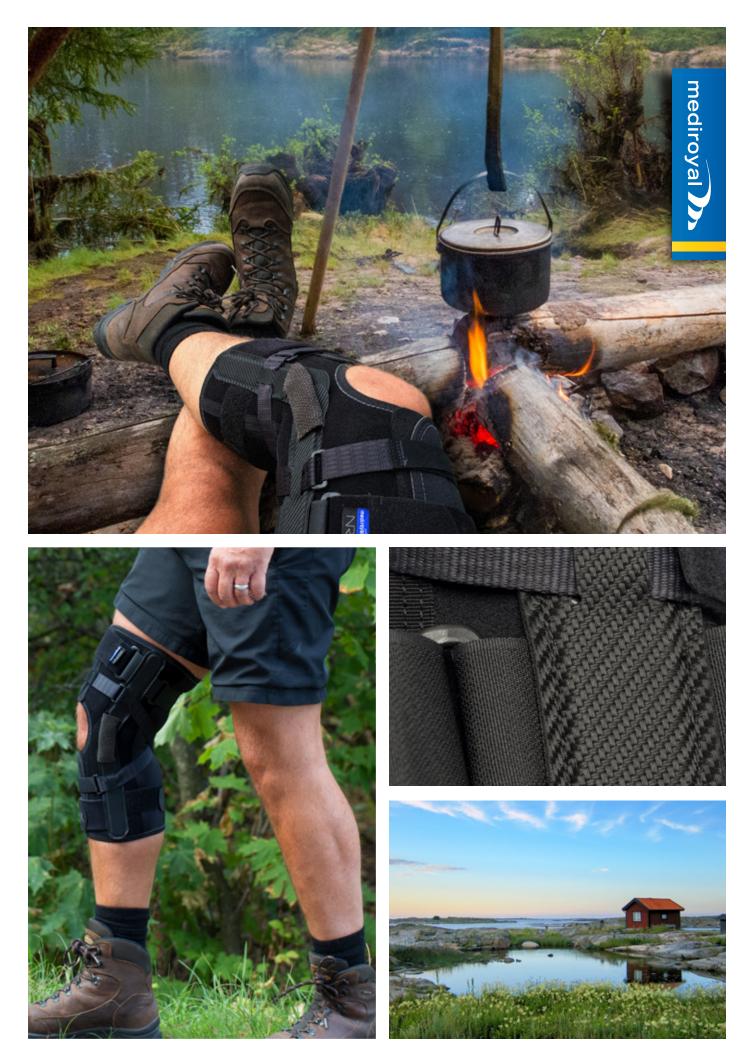
- Lateral patella pad with elastic straps
- Integrated friction surface on the pad
- · Neptune material in the knee fold

Available in Left or Right model.

**Indications:** Subluxation or luxation of the patella, patellofemoral pain syndrome or anterior knee pain caused by patella tracking problems.

S	ize	XS	S	М	L	XL	XXL	XXXL	$\overline{}$
C	cm	29–32	32–35	35–38	38–42	42-46	46–50	50-54	M





# ∕NRX<sup>®</sup> Model program

# **ARX® Basic Knee**

#### ARX301

This is a light knee support made from the ARX® material that provides good ventilation and a high comfort. It has been fitted with spiral stays on both sides. The brace has an anatomical design with an integrated friction system in the thigh part. The knee fold has the breathable Neptune material for optimal comfort. The closure over the thigh and calf are made from micro hook and loop.

- · Spiral stays on both sides
- · Integrated friction system over the thigh
- · Adjustable over the thigh and calf

**Indications:** Mild knee instability, inflammation or osteoarthritis in the knee joint.

Si	ize	XS	S	М	L	XL	XXL	XXXL	$\overline{\mathbf{x}}$
C	m	29–32	32–35	35–38	38–42	42–46	46–50	50–54	M



# **ARX® Basic Open Patella**

#### ARX302

A light knee support that provides support both for the knee as well as for the patella. It has spiral stays on each side of the knee and a patella pad made from NRX®-material. The brace has an anatomical design with an integrated friction system in the thigh part. The knee fold has the breathable Neptune material for optimal comfort. The closure over the thigh and calf are made from micro hook and loop.

- · Patella pad in NRX® material to support the knee cap
- Spiral stays on each side
- $\cdot\,$  Adjustable over the thigh and calf

**Indications:** Mild knee- and patella instability, inflammation or osteoarthritis in the knee joint.

Size	XS	S	М	L	XL	XXL	XXXL	$\overline{\mathbf{A}}$
cm	29–32	32–35	35–38	38–42	42–46	46–50	50–54	M



# **ARX® Liga Spring**

#### ARX323

This knee brace with double spiral stays on each side of the knee provides a good and flexible support to the knee joint. It's fitted with two elastic straps that are detachable, making it possible to apply the support medially below and laterally above to create a diagonal support over the joint. The patella ring is made from NRX® material and provides an effective support to the knee cap. The brace has an anatomical design with an integrated friction system over the thigh part, preventing migration during activity. The knee fold has the breathable Neptune material for optimal comfort. The closure over the thigh and calf are made from micro hook and loop.

- Double spiral stays on each side of the knee
- · Elastic straps for added stability
- Patella ring made from NRX<sup>®</sup> material

**Indications:** Mild to moderate instability in the knee joint due to ligament or meniscus injuries, patella instability, inflammations or osteoarthritis in the knee joint.

Size	XS	S	М	L	XL	XXL	XXXL	$\overline{\mathbf{x}}$
cm	29–32	32–35	35–38	38–42	42–46	46–50	50–54	M



# **ARX®** Liga Light

#### ARX312

A medium stable knee brace fitted with the MR4996 double hinge made from aluminium and two elastic straps. The brace itself it's made from the breathable ARX® material with excellent ventilation. The hinge pockets are made from the new carbon-nylon material that provides a low profile and excellent durability. The hinge covers are made from Kevlar® which provides a good protection. The two elastic straps are attached with hook and loop and can be positioned either lateral or medial. The patella pad is made from the NRX® material and provides an excellent support to the knee cap. The knee brace has an anatomical design with an integrated friction system over the thigh area to prevent migration during activity. The knee fold has the breathable Neptune material for optimal comfort. The closure over the thigh and calf are made from micro hook and loop.

- Fitted with MR4996 Double hinge in aluminium
- Hinge covers in Kevlar®
- Elastic detachable straps

**Indications:** Mild to moderate instability in the knee joint due to ligament or meniscus injuries, patella instability, inflammations or osteoarthritis in the knee joint.

0.20		S	М	L		XXL		
cm	29–32	32–35	35–38	38–42	42–46	46–50	50-54	M



# **ARX®** Liga X

#### ARX311

This stable knee brace is fitted with our new MR4997 Active hinge, made from A6061 aluminium and that can be controlled in both extension and flexion. The brace itself it's made from the breathable ARX® material with excellent ventilation. The hinge stops are made from injection molded nylon and can stop extension in 0°, 10°, 20°, 30° and 40° as well as flexion 45°, 60°, 75° and 90°. The hinge covers have a special design which makes it possible to adjust the range of motion when the hinge is fitted in the brace. The covers are open on the back side and can slide forward or backward to access the opening in the hinge. The hinge pockets are made from the new carbon-nylon material that provides a low profile and excellent durability. The hyper extension strap in the back of the brace has a low profile and can be adjusted in the front by micro hook tabs. The thigh and shin part of the brace are fitted with adjustable non elastic straps. The patella pad is made from the new NRX® material that provides good support to the knee cap. The inside of the thigh part has an integrated friction system that prevents migration during activity. The knee fold has the breathable Neptune material for optimal comfort. The closure over the thigh and calf are made from micro hook and loop.

- Fitted with the new MR4997 Active Hinge
- Hinge covers in Kevlar®
- Hyper-extension strap

**Indications:** Instability in the knee joint due to injury to the cruciate ligaments, collateral ligaments or the meniscus, hyper extension problems, patella instability, inflammations or osteoarthritis.

Size	XS	S 32–35	М	L	XL	XXL	XXXL	8	
cm	29–32	32–35	35–38	38–42	42-46	46–50	50-54		Y

# **ARX® Liga X Hybrid**

#### ARX350

A stable hybrid brace with completely adjustable thigh part and a circular lower part that makes it suitable for patients with conical thighs. The brace itself it's made from the breathable ARX® material with excellent ventilation. It's fitted with our new MR4997 Active Hinge, made from A6061 aluminium, which can be adjusted in extension and flexion by using injection moulded stops. The hinge can be adjusted in the following degrees; Extension 0°, 10°, 20°, 30° and 40° and Flexion 45°, 60°, 75° and 90°. The hinge covers have a special design which makes it possible to adjust the range of motion when the hinge is fitted in the brace. The covers are open on the back side and can slide forward or backward to access the opening in the hinge. The hinge pockets are made from the new carbon-nylon material that provides a low profile and excellent durability. The hyper extension strap in the back of the brace has a low profile and can be adjusted in the front by micro hook tabs. The thigh and shin part of the brace are fitted with adjustable non elastic straps. The inside of the thigh part has an integrated friction system that prevents migration during activity. The knee fold has the breathable Neptune material for optimal comfort. The closure over the thigh and calf are made from micro hook and loop.

- Hybrid model with an adjustable thigh and circular lower part
- Fitted with MR4997 Active hinge with extension and flexion stops
- Hyper-extension strap

**Indications:** Instability in the knee joint due to injury to the cruciate ligaments, collateral ligaments or the meniscus, hyper-extension problems, inflammations or osteoarthritis.

Size	XS	S	М	L	XL	XXL	8
cm	29–32	32–35	35–38	38–42	42-46	46–50	M





# ARX<sup>®</sup> Liga Post Op Kort

#### **ARX910**

This is a short knee brace that can be used for post-op as well as during rehab. It's made from the ARX® Mesh material that provides very good ventilation, no moisture absorption and dries quickly. This model has a full length anterior opening which makes it easy to apply by wrapping it around the knee joint. It's fitted with four half-circular straps that allow you to apply anterior or posterior support over each strap to create a shear force over the joint. The knee hinge is the MR4998 Short ROM Hinge that can be adjusted directly on the patient without having to remove the brace. Simply open the hinge cover and set the pins. The four pins are made from stainless steel and can be set in extension: 0°, 15°, 30°, 60°, 90° and in flexion: 90°, 60°, 30°, 15°, 0°. The hinge can also be completely blocked in: 0°, 15°, 30°, 60°, 90°. The cap over the joint has a safety lock that snaps in place to secure it.

- A lightweight and ventilated ARX® Mesh material
- Fitted with the 33 cm stable MR4998 Short ROM hinge
- Four half-circular straps

**Indications:** Post-operative immobilization of the knee joint after cruciate ligament, collateral ligament, meniscus injuries or after knee reconstructions.

ſ	Size	S	М	L	XL	XXL	XXXL	XXXXL	$\overline{\mathbf{x}}$
	cm	32–35	35–38	38–42	42–46	46–50	50–54	54–58	M



# **ARX® Liga Post Op Long**

#### ARX912

This is 40 cm long knee brace that can be used for post-op as well as during rehab. It's made from the ARX® Mesh material that provides very good ventilation, no moisture absorption and dries quickly. This model has a full length anterior opening which makes it easy to apply by wrapping it around the knee joint. It's fitted with four half-circular straps that allow you to apply anterior or posterior support over each strap to create a shear force over the joint. The knee hinge is the MR4999 Long ROM Hinge that can be adjusted directly on the patient without having to remove the brace. Simply open the hinge cover and set the pins. The four pins are made from stainless steel and can be set in extension: 0°, 15°, 30°, 60°, 90° and in flexion: 90°, 60°, 30°, 15°, 0°. The hinge can also be completely blocked in: 0°, 15°, 30°, 60°, 90°. The cap over the joint has a safety lock that snaps in place to secure it.

- A lightweight and ventilated ARX<sup>®</sup> Mesh material
- Fitted with the 40 cm stable MR4999 Long ROM hinge
- Four half-circular straps

**Indications:** Post-operative immobilization of the knee joint after cruciate ligament, collateral ligament, meniscus injuries or after knee reconstructions.

Size	S	М	L	XL	XXL	XXXL	XXXXL	$\overline{\mathbf{A}}$
cm	32–35	35–38	38–42	42–46	46–50	50–54	54–58	M



# ARX<sup>®</sup> Liga X Wrap

#### ARX314

A stable knee brace with a full length anterior closure which makes application easier for patients that can't pull the brace over the foot and up the leg. The brace itself it's made from the breathable ARX® material with excellent ventilation. The closure is made from micro hook with the loop part integrated onto the surface of the brace. This greatly increases the size range. It's fitted with the MR4996 double hinge, made from aluminium, along with hinge covers made from Kevlar®. There are adjustable, non elastic straps positioned over the thigh and calf sections of the brace. The brace is also fitted with a hyper-extension control strap that effectively controls hyper extension of the knee joint. The thigh part has an integrated friction system that prevents migration during activity. The knee fold has the breathable Neptune material that dries quickly and provides optimal comfort.

- Wrap around design
- Fitted with MR4996 Double hinge in aluminium
- $\cdot \;$  Hyper-extension strap

**Indications:** Instability in the knee joint due to injury to the cruciate ligaments, collateral ligaments or the meniscus, hyper-extension problems, inflammations or osteoarthritis.

Size	XS	S	М	L	XL	XXL	XXXL	$\overline{\mathbf{r}}$
cm	29–32	32–35	35–38	38–42	42–46	46–50	50–54	M

# **ARX®** Liga Light Wrap

#### **ARX315**

This is a medium stable knee brace with full length anterior opening making it easy to apply by simply wrapping it around the knee. The brace itself it's made from the breathable ARX® material with excellent ventilation. The closure is made from micro hook and the loop is integrated on one of the sides of the brace, making the sizing range more adjustable. It has been fitted with the MR4996 Double hinge made from aluminium and hinge covers made from Kevlar®. Two 10 cm wide elastic straps wrap around the brace to provide compression and stability. The thigh part has an integrated friction material to prevent migration during activity. The knee fold has the breathable Neptune material that dries quickly and provides optimal comfort.

- · Wrap around design
- Two 10 cm elastic straps
- Fitted with the MR4996 Double hinge

Indications: Instability in the knee joint due to injury to the collateral ligaments or the meniscus, rehab after knee reconstruction, inflammations or osteoarthritis.

ſ	Size	XS	S	М	L	XL	XXL	XXXL	$\overline{\mathbf{x}}$
	cm	29–32	32–35	35–38	38–42	42–46	46–50	50–54	M

# **ARX®** Liga Spring Wrap

#### **ARX316**

This is a light knee brace with a full length anterior opening and closure made from micro hook and loop. It makes application easy by simply wrapping it around the knee. The brace itself it's made from the breathable ARX® material with excellent ventilation. The hook closure attaches to the loop surface on the brace, making the sizing range more adjustable. It's fitted with two spiral stays on each side of the knee to provide a flexible support. Two 10 cm wide elastic straps wrap around the brace to provide compression and stability. The thigh part has an integrated friction material to prevent migration during activity. The knee fold has the breathable Neptune material that dries quickly and provides optimal comfort.

- Wrap around design
- Two 10 cm elastic straps
- · Double spiral stays on each side of the knee

Indications: Knee instability due to injury to the collateral ligament or the meniscus, inflammation or osteoarthritis in the knee joint.

9	Size	XS	S	М	L	XL	XXL	XXXL	$\overline{\mathbf{x}}$
	cm	29–32	32–35	35–38	38–42	42-46	46–50	50-54	M





# ARX<sup>®</sup> Liga X Wrap Beige

#### ARX514

A stable knee brace with a full length anterior closure which makes application easier for patients that can't pull the brace over the foot and up the leg. The brace itself it's made from the breathable ARX® material with excellent ventilation. The closure is made from micro hook with the loop part integrated onto the surface of the brace. This greatly increases the size range. It's fitted with the MR4996 double hinge, made from aluminium, along with hinge covers made from Kevlar®. There are adjustable, non elastic straps positioned over the thigh and calf sections of the brace. The brace is also fitted with a hyper-extension control strap that effectively controls hyper extension of the knee joint. The thigh part has an integrated friction system that prevents migration during activity. The knee fold has the breathable Neptune material that dries quickly and provides optimal comfort.

- · Wrap around design
- $\cdot~$  Fitted with MR4996 Double hinge in aluminium
- Hyper-extension strap

**Indications**: Instability in the knee joint due to injury to the cruciate ligaments, collateral ligaments or the meniscus, hyper-extension problems, inflammations or osteoarthritis.

Size		S				XXL		$\overline{}$
cm	29–32	32–35	35–38	38–42	42–46	46–50	50-54	M

# ARX<sup>®</sup> Liga Light Wrap Beige

#### ARX515

This is a medium stable knee brace with full length anterior opening making it easy to apply by simply wrapping it around the knee. The brace itself it's made from the breathable ARX® material with excellent ventilation. The closure is made from micro hook and the loop is integrated on one of the sides of the brace, making the sizing range more adjustable. It has been fitted with the MR4996 Double hinge made from aluminium and hinge covers made from Kevlar®. Two 10 cm wide elastic straps wrap around the brace to provide compression and stability. The thigh part has an integrated friction material to prevent migration during activity. The knee fold has the breathable Neptune material that dries quickly and provides optimal comfort.

- Wrap around design
- Two 10 cm elastic straps
- Fitted with the MR4996 Double hinge

**Indications**: Instability in the knee joint due to injury to the collateral ligaments or the meniscus, rehab after knee reconstruction, inflammations or osteoarthritis.

Size	XS	S	М	L	XL	XXL	XXXL	$\checkmark$
cm	29–32	32–35	35–38	38–42	42-46	46–50	50-54	M









# **ARX® Liga Spring Wrap Beige**

#### ARX516

This is a light knee brace with a full length anterior opening and closure made from micro hook and loop. It makes application easy by simply wrapping it around the knee. The brace itself it's made from the breathable ARX® material with excellent ventilation. The hook closure attaches to the loop surface on the brace, making the sizing range more adjustable. It's fitted with two spiral stays on each side of the knee to provide a flexible support. Two 10 cm wide elastic straps wrap around the brace to provide compression and stability. The thigh part has an integrated friction material to prevent migration during activity. The knee fold has the breathable Neptune material that dries quickly and provides optimal comfort.

- Wrap around design
- Two 10 cm elastic straps
- · Double spiral stays on each side of the knee

**Indications**: Knee instability due to injury to the collateral ligament or the meniscus, inflammation or osteoarthritis in the knee joint.

Size	XS	S	М	L	XL	XXL	XXXL	$\overline{\mathbf{r}}$
cm	29–32	32–35	35–38	38–42	42–46	46–50	50–54	M

# **ARX®** Patella Luxation

#### ARX330

A small, low profile and effective knee brace for patella subluxation, which has been designed to be able to wear under clothes. The brace itself it's made from the breathable ARX<sup>®</sup> material with excellent ventilation. It has a bilateral design which means that it can be used left or right, medially or laterally just by turning the brace. The patella pad has two elastic straps integrated that provide a direct force to the patella. To further increase the effect of the pad it

has been laminated with a friction material that also works as an anti-sliding surface, securing the pad in position during activity. The hook and loop closure on the brace and straps are made with micro hook and loop. The loop surface has been integrated into the side of the brace, allowing a larger size variation in each brace. The elastic straps can be attached on the surface of the brace. The knee fold is made from the breathable Neptune material which provides an optimal comfort for the user.

- · Patella pad with integrated elastic straps
- $\cdot\;$  Friction material on the pad increase the effect and support
- Breathable Neptune material placed in the knee fold

**Indications:** Subluxation or luxation of the patella, patellofemoral pain syndrome or anterior knee pain caused by patella tracking problems.

Size	XS	S	М	L	XL	XXL	$\overline{\mathbf{A}}$
cm	29–32	32–35	35–38	38–42	42–46	46–50	M

# **ARX®** Patella Luxation Long

#### ARX331

This is a long knee brace for patella tracking problems. The brace itself it's made from the breathable ARX® material with excellent ventilation. It has spiral stays on the sides and a lateral patella pad that provides an effective support to the knee cap. The patella pad has an integrated friction surface that provides a very effective support. The model is designed with a lateral patella support which means that it's available in both left and right. If the support would be needed medially, it's just to order left for the right knee and right for the left. The elastic straps are attached on the opposite side of the patella pad, providing a dynamic 3-point lever system.

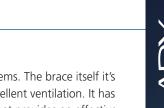
The closure over the thigh and calf are made from micro hook and loop. The knee fold is made from the breathable Neptune material which provides an optimal comfort for the user.

- Lateral patella pad with elastic straps
- · Integrated friction surface on the pad
- $\cdot \,$  Neptune material in the knee fold

Available in Left or Right model.

**Indications:** Subluxation or luxation of the patella, patellofemoral pain syndrome or anterior knee pain caused by patella tracking problems.

Size		S	М	L		XXL		7
cm	29–32	32–35	35–38	38–42	42–46	46–50	50-54	M







# **ARX®** Patella Tendon Long

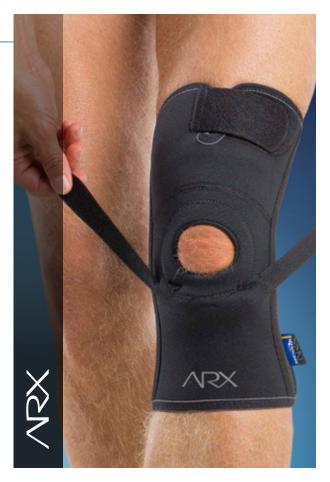
#### ARX321

This is a longer brace for patella tendon problems, made from the breathable ARX® material with excellent ventilation. It's fitted with spiral stays on the side and a fixed patella tendon pad that is integrated with two elastic straps that are attached on the backside of the brace. The pad has a friction material placed on the top to provide a better and more effective support. The angle of the elastic straps allows a slight lifting of the patella. Over the thigh part of the brace there is an integrated friction material that prevents migration during activity. The knee fold has the breathable Neptune material for optimal comfort.

- · Provides a lift and unloads the patella tendon
- Friction material over the pad and the thigh strap
- · Breathable Neptune material in the knee fold

**Indications:** Os Schlatters, jumper's knee or general patella tendon problems.

Size	XS	S	М	L	XL	XXL	XXXL	$\overline{\mathbf{A}}$
cm	29–32	32–35	35–38	38–42	42–46	46-50	50-54	M



# **ARX® Basic Patella Silicone Beige**

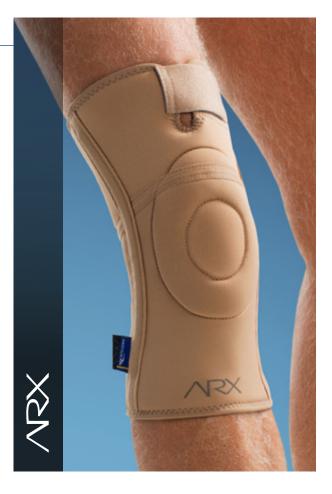
#### ARX532

This is a lighter knee support with spiral stays on each side of the knee and a silicone patella pad for the knee cap. The pad provides a soft and gentle support as well as local compression around the patella. The brace is made from the ventilated ARX® material and has an anatomical design. Over the thigh there is an integrated friction system to provide suspension during activity. Micro hook and loop closure over the thigh and calf. The knee fold has the breathable Neptune material for optimal comfort.

- Patella pad in silicone
- · Spiral stays on each side of the knee
- · Adjustable thigh and calf

**Indications:** Mild knee and patella instability, inflammation and osteoarthritis in the knee joint.

Size	XS	S	М	L	XL	XXL	XXXL	8
cm	29–32	32–35	35–38	38–42	42–46	46–50	50-54	M



# CRX<sup>®</sup> Model program

# **CRX®** Basic

#### CRX601

This knee brace is flat knitted with an anatomically design, featuring three individual compression zones. The compression zones, with the highest compression in the middle, help to reduce swelling over the joint. Local trauma will cause swelling which usually is the main reason to inhibition in joint range of motion. The brace is fitted with a patella pad in silicone and spiral stays on each side of the joint. For conical thighs there is a new option called PLUS. These sizes are available from M-XXXL and have 3 cm wider circumference over the thigh but the same circumference around the knee and calf as the standard sizes.

- · Graded compression in 3 zones
- $\cdot \;$  Spiral stays on the side of the joint
- PLUS sizes available in M-XXXL

**Indications:** Mild knee instability, local swelling after trauma, inflammations and osteoarthritis in the knee joint.

Size	XS	S	М	L	XL	XXL	XXXL	
Knee Center cm	27–29	30–32	33–35	36–38	39–41	42–44	44–46	M
Thigh Standard cm	38–40	41–43	44–47	47–50	50–53	53–56	56–59	X
Thigh PLUS cm	-	-	47–50	50–53	53–56	56–59	59–62	

# **CRX® Basic Patella**

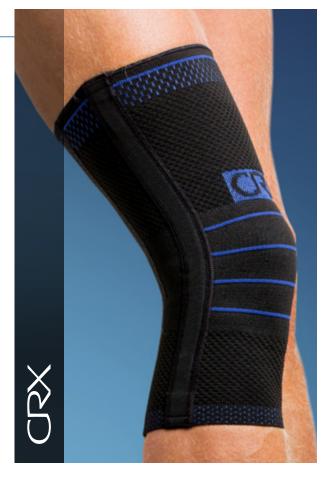
#### CRX602

The central part of the knee has the highest compression zone to control local swelling over the joint. This zone grades out in the two zones above and below with 30% less compression, which helps to transport the swelling to the larger muscle groups in the thigh and calf. In the upper and lower end of the brace are the third compression zones with the least compression to not trap swelling above and below. On each side of the brace are spiral stays to provide light support to the joint. For conical thighs there is a new option called PLUS. These sizes are available from M–XXXL and have 3 cm wider circumference over the thigh but the same circumference around the knee and calf as the standard sizes.

- Graded compression in 3 zones
- · Silicone patella pad
- PLUS sizes available in M-XXXL

**Indckations:** Mild knee and patella instability, local swelling after trauma, inflammations and osteoarthritis in the knee joint.

Size	XS	S	М	L	XL	XXL	XXXL	
Knee Center cm	27–29	30–32	33–35	36–38	39–41	42–44	44–46	M
Thigh Standard cm	38–40	41–43	44–47	47–50	50–53	53–56	56–59	8
Thigh PLUS cm	-	-	47–50	50–53	53–56	56–59	59–62	





## **CRX® Basic Artro**

#### CRX603

A flat knitted knee brace specially designed for treatment of post-operative swelling and meniscus problems. Swelling over the joint area results in significantly inferior neuromuscular stability. By controlling the swelling and supporting the joint, the proprioception can be enhanced. The central part of the knee brace, with the highest compression have to viscoelastic pads incorporated on each side of the knee. They are positioned on the inside of the two spiral stays to provide local compression and to relieve pressure over the area. Patients with pain medially/laterally over the joint space get local compression and support by the brace. For conical thighs there is a new option called PLUS. These sizes are available from M-XXXL and have 3 cm wider circumference over the thigh but the same circumference around the knee and calf as the standard sizes.

- Graded compression in 3 zones
- · Viscoelastic pads positioned over the joint spaces
- PLUS sizes available in M-XXXL

**Indications:** Meniscus injuries with swelling over the joint space, post-operative swelling after arthroscopic surgery, swelling after trauma, inflammations and osteoarthritis in the knee.

Size	XS	S	М	L	XL	XXL	XXXL	
Knee Center cm	27–29	30–32	33–35	36–38	39–41	42–44	44–46	T
Thigh Standard cm	38–40	41–43	44–47	47–50	50–53	53–56	56–59	X
Thigh PLUS cm	-	-	47–50	50–53	53–56	56–59	59–62	

# **CRX®** Liga Spring

#### **CRX612**

A longer flat knitted knee brace with anatomical design. It has 3 individual compression zones and is fitted with double spiral stays on each side and an integrated silicone patella pad. Two elastic straps are attached to the spiral stays with hook and loop. This means that you can change the position of the straps, providing medial support with the lower and lateral with the upper, to create a diagonal support over the joint. For conical thighs there is a new option called PLUS. These sizes are available from M-XXXL and have 3 cm wider circumference over the thigh but the same circumference around the knee and calf as the standard sizes.

- · Double spiral stays on each side of the joint
- · Silicone pad for the patella
- PLUS sizes available in M-XXXL

**Indications:** Mild to moderate knee instability, collateral ligament or meniscus injuries, patella instability, inflammations and osteoarthritis in the knee.

Size	XS	S	М	L	XL	XXL	XXXL	
Knee Center cm	27–29	30–32	33–35	36–38	39–41	42–44	44–46	M
Thigh Standard cm	38–40	41–43	44–47	47–50	50–53	53–56	56–59	X
Thigh PLUS cm	-	-	47–50	50–53	53–56	56–59	59–62	



# **CRX®** Liga Light

#### **CRX613**

This is a longer flat knitted knee brace with anatomical design and three individual compression zones. Fitted with the MR4996 Double hinge made from aluminium that has been enclosed in pockets made from 2 mm CR covered with loop fabric. The hinge can be removed from the pocket if needed. Two elastic straps are attached onto the pockets and can be positioned freely on the surface. The brace has an integrated silicone pad to support the patella. For conical thighs there is a new option called PLUS. These sizes are available from M-XXXL and have 3 cm wider circumference over the thigh but the same circumference around the knee and calf as the standard sizes.

- Fitted with MR4996 Double hinge
- Encapsulated hinge pocket for protection
- PLUS sizes available in M–XXXL

**Indications:** Moderate knee instability, collateral ligament or meniscus injuries, patella instability, inflammations and osteoarthritis in the knee.

Size	XS	S	М	L	XL	XXL	XXXL	
Knee Center cm	27–29	30–32	33–35	36–38	39–41	42–44	44–46	M
Thigh Standard cm	38–40	41–43	44–47	47–50	50–53	53–56	56–59	X
Thigh PLUS cm	-	-	47–50	50–53	53–56	56–59	59–62	



# CRX<sup>®</sup> Liga X

#### **CRX611**

This is a stable knee brace made from a flat knitted compression material with three individual zones. The brace has also an integrated silicone pad for patella support. It has been fitted with the new MR4997 Active hinge made from A6061 aluminium with extension and flexion stops. The stops are made from injection molded nylon and can stop extension in 0°, 10°, 20°, 30° and 40° as well as flexion 45°, 60°, 75° and 90°. The hinge covers have a special design which makes it possible to adjust the range of motion when the hinge is fitted in the brace. The covers are open on the back side and can slide forward or backward to access the opening in the hinge. The hinge pockets are made from the new carbon-nylon material that provides a low profile and excellent durability. The hyper extension strap in the back of the brace has a low profile and can be adjusted in the front by micro hook tabs. The thigh and shin part of the brace are fitted with adjustable non elastic straps. For conical thighs there is a new option called PLUS. These sizes are available from M-XXXL and have 3 cm wider circumference over the thigh but the same circumference around the knee and calf as the standard sizes.

- Graded compression in three zones
- Fitted with the new MR4997 Active Hinge
- · Hyper-extension strap

**Indications:** Instability in the knee joint due to injury to the cruciate ligaments, collateral ligaments or the meniscus, hyper extension problems, patella instability, inflammations or osteoarthritis.

	100							
Size	XS	S	М	L	XL	XXL	XXXL	$\overline{}$
Knee Center cm	27–29	30–32	33–35	36–38	39–41	42–44	44–46	M
Thigh <b>Standard cm</b>	38–40	41–43	44–47	47–50	50–53	53–56	56–59	X
Thigh PLUS cm	-	-	47–50	50–53	53–56	56–59	59–62	
100-120								



# **CRX® Liga X ROM**

#### **CRX609**

This stable knee brace is made from a flat knitted compression material with three individual zones. The brace has also an integrated silicone pad for patella support. It has been fitted with our short ROM hinge, MR4998. The hinge can be adjusted directly on the patient without having to remove the brace. Simply open the hinge cap and set the pins. The four pins are made from stainless steel and can be set in extension: 0°, 15°, 30°, 60°, 90° and in flexion: 90°, 60°, 30°, 15°, 0°. The hinge can also be completely blocked in: 0°, 15°, 30°, 60°, 90°. The cap over the joint has a safety lock that snaps in place to secure it. The hinge is covered by Kevlar® sleeves. The hinge pockets are made from the new carbon-nylon material that provides a low profile and excellent durability. The hyper extension strap in the back of the brace has a low profile and can be adjusted in the front by micro hook tabs. The thigh and shin part of the brace are fitted with adjustable non elastic straps. For conical thighs there is a new option called PLUS. These sizes are available from M-XXXL and have 3 cm wider circumference over the thigh but the same circumference around the knee and calf as the standard sizes.

- · Graded compression in three zones
- Fitted with the new MR4998 Short ROM Hinge
- Hyper-extension strap

**Indications:** Ilnstability in the knee joint due to injury to the cruciate ligaments, collateral ligaments or the meniscus, hyper extension problems, patella instability, inflammations or osteoarthritis.

Size	XS	S	М	L	XL	XXL	XXXL	
Knee Center cm	27–29	30–32	33–35	36–38	39–41	42–44	44–46	M
Thigh Standard cm	38–40	41–43	44–47	47–50	50–53	53–56	56–59	X
Thigh PLUS cm	-	-	47–50	50–53	53–56	56–59	59–62	







# **CRX®** Patella Tendon

#### **CRX621**

A knee brace made from a flat knitted material with three compression zones and with a patella tendon pad. The brace has spiral stays on each side of the knee. The pad is attached to two elastic straps and a D-ring that provides a circular support. Over the pad there is a friction material that provides a more effective support and prevents it from sliding.

- · Graded compression zones
- · Unloads the patella tendon
- · Friction material over the pad

**Indications:** Os Schlatters, jumper knee, general patella tendon problems.

cm 29–32 32–35 35–38 38–42 42–46 46–50 50–54	Size		S					XXXL	X I	
	cm	29–32	32–35	35–38	38–42	42–46	46–50	50–54	[	Y



# Orthoses are our passion



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