



Ortho Innovations' braces featuring Mackie Hinge technology are designed to stretch soft tissue contractures and return the maximum range of motion possible to the joint. The Mackie Hinge features infinitely adjustable angle settings, non-slip static-progressive action, removable knobs for low-profile use and is available in prefabricated and custom braces or alone. Pediatric hinges are also available.



#### Wrist Brace

*Great for night-time use or adaptable to other prescribed wearing protocols. Incorporated Mackie Hinge technology and features removable knob for low-profile use and enhanced compliance.*



#### Elbow Brace

*Provides incremental stretch to reduce soft tissue contractures of the elbow. Incorporates Mackie Hinge technology and features medial or lateral removable flexion/extension control knob.*



#### Knee Brace

*Provides incremental stretch to reduce soft tissue contractures of the knee. Incorporates Mackie Hinge technology and features infinitely adjustable angle settings, non-slip, static-progressive action and removable knobs.*



#### Hip Abduction Orthosis

*Minimally intrusive abduction orthosis features adjustable flexion, an ultra low-profile pelvic section and thigh shell that is rigid where it matters and flexible where it counts. Contourable uprights.*



Patient survey results and custom brace order forms available at [www.cascade-usa.com](http://www.cascade-usa.com). In-services available by Ortho Innovations staff. To schedule call 800-888-0865.

## ORTHO INNOVATIONS BRACES — Continued

### Selection Guide

#### Prefabricated Wrist Brace

Small	Medium			
<b>OI1028</b>	<b>OI1030</b>	Left		
<b>OI1029</b>	<b>OI1031</b>	Right		
Size	Measure	Cicumference	Diameter M-L	Length
Small	Forearm (at band/strap location)	6.5-9"	2-2.75"	
	Wrist (just proximal to ulnar and radial styloids)	6-8"	1.75-2.5"	
	Hand (across MP joints)		2.5-3.25"	
	Distance (radial styloid to max brace length)			5"
	Distance (from ulnar styloid to 5th MP joint)			2.5"
	Distance (from radial styloid to 2nd MP joint)			4"
Medium	Forearm (at band/strap location)	9-11"	2.75-3.5"	
	Wrist (just proximal to ulnar and radial styloids)	7.5-10"	2.5-3.125"	
	Hand (across MP joints)		3.25-4.25"	
	Distance (radial styloid to max brace length)			5"
	Distance (from ulnar styloid to 5th MP joint)			2.75"
	Distance (from radial styloid to 2nd MP joint)			4.5"

*M-L gauge should be used to take M-L measurements.*

#### Prefabricated Elbow Brace

	Small	Medium	Large	
	<b>OI1001</b>	<b>OI1002</b>	<b>OI1003</b>	Left Medial, Right Lateral Knob
	<b>OI1004</b>	<b>OI1005</b>	<b>OI1006</b>	Right Medial, Left Lateral Knob
Size	Measure		Circumference	Diameter M-L
Small	Upper Arm (measured 7"/17.8cm above joint center)		8-11.75" (20.3-29.8cm)	2.5-3.75" (6.4-9.5cm)
	Elbow (measured at joint center) <sup>1</sup>		8-11.75" (20.3-29.8cm)	2.5-3.75" (6.4-9.5cm)
	Lower Arm (measured 7"/17.8cm below joint center)		5.75-8" (14.6-20.3cm)	1.4-2" (3.8-5.1cm)
Medium	Upper Arm (measured 7"/17.8cm above joint center)		10.25-14.25" (26-36.2cm)	3.25-4.5" (8.3-11.4cm)
	Elbow (measured at joint center) <sup>1</sup>		10.25-14.25" (26-36.2cm)	3.25-4.5" (8.3-11.4cm)
	Lower Arm (measured 7"/17.8cm below joint center)		6.75-10.5" (17.1-26.7cm)	1.75-2.75" (4.4-7cm)
Large	Upper Arm (measured 7"/17.8cm above joint center)		12.75-16.5" (32.4-41.9cm)	4-5.25" (10.2-13.3cm)
	Elbow (measured at joint center) <sup>1</sup>		12.75-16.5" (32.4-41.9cm)	4-5.25" (10.2-13.3cm)
	Lower Arm (measured 7"/17.8cm below joint center)		8-11.75" (20.3-29.8cm)	2.5-3.75" (6.4-9.5cm)

<sup>1</sup> M-L should be taken in line with the humeral condyles and reflect the widest M-L.  
Note any swelling for future condyle pad adjustment needs.

#### Prefabricated Knee Brace

	Small	Medium	Large	
	<b>OI1007S</b>	<b>OI007M</b>	<b>OI1007L</b>	
Size	Measure		Circumference	Diameter M-L
Small	Upper Thigh (measured 10"/25cm above joint center)		12.75-16.5" (32.4-41.9cm)	4-5.25" (10.2-13.3cm)
	Knee (measured at knee center) <sup>2</sup>		11.75-14.5" (29.8-36.9cm)	3.75-4.5" (9.5-11.4cm)
	Lower Calf (measured 10"/25cm below joint center)		8-11.75" (20.3-29.8cm)	2.5-3.75" (6.4-9.5cm)
Medium	Upper Thigh (measured 10"/25cm above joint center)		18-21" (45.7-3.3cm)	5.75-6.5" (14.6-16.5cm)
	Knee (measured at knee center) <sup>2</sup>		15-17" (38.1-43.2cm)	5-5.5" (12.-14cm)
	Lower Calf (measured 10"/25cm below joint center)		9.5-12.5 (24.1-31.8cm)	3-4" (7.7-10.1cm)
Large	Upper Thigh (measured 10"/25cm above joint center)		21-24" (53.3-61cm)	6.5-7.5" (16.5-19cm)
	Knee (measured at knee center) <sup>2</sup>		17-20" (43.2-50.8cm)	5.5-6.25" (14-15.8cm)
	Lower Calf (measured 10"/25cm below joint center)		12.75-16.5" (32.4-41.9cm)	4-5.5" (10.2-13.3cm)

<sup>2</sup> M-L should be taken in line with mid-patella and reflect the widest M-L.  
Note any swelling for future condyle pad adjustment needs.

## ORTHO INNOVATIONS BRACES — Continued

### Selection Guide — Continued

#### Hip Abduction Orthosis (HAO)

Pelvic Assembly, One Size

Left	Right
<b>OI1013</b>	<b>OI1014</b>

Thigh Assembly

Small	Medium	Large	
<b>OI1015</b>	<b>OI1017</b>	<b>OI1019</b>	Left
<b>OI1016</b>	<b>OI1018</b>	<b>OI1020</b>	Right
Size	Proximal	Distal	
Small	15-22" (38.1-55.88cm)	13-19" (33.02-48.26cm)	
Medium	18-25" (45.72-63.5cm)	15-21" (38.1-53.34cm)	
Large	21-27" (53.34-65.58cm)	17-23" (43.18-58.42cm)	

*Initial fitter is required to be proficient at bending metal. (Bending irons required, not included).*

*Patient should be fit laying down, unless otherwise instructed by physician.*

*Measure thigh circumference at proximal and distal levels to determine size for thigh assembly.*

*Measure waist circumference. This product will fit a patient with a waist circumference from 32-65".*

#### Replacement Soft Goods Kit

Item No.	Description
<b>OI1001SGK</b>	Soft Goods Kit, Elbow, Small
<b>OI1002SGK</b>	Soft Goods Kit, Elbow, Medium
<b>OI1003SGK</b>	Soft Goods Kit, Elbow, Large
<b>OI1007SGK</b>	Soft Goods Kit, Knee (Medium)

#### Mackie Hinge Only

Item No.	Description	Extended Description	Dimensions
<b>OI2023</b>	Knee Hinge	Straight Geared Hinge with 2.75" Knob	.18" x .58" x 28"
<b>OI2029</b>	Elbow Hinge	Straight Geared Hinge with 2" Knob	.18" x .58" x 28"
<b>OI2024</b>	Elbow Hinge	Striaight Idler Hinge	.125" x .58" x 28"
<b>OI2025</b>	Pediatric Hinge	Straight Geared Hinge with 2" Knob	.187" x .58" x 18"
<b>OI2026</b>	Pediatric Hinge	Straight Idler Hinge	.125" x .58" x 18"