



ORTHOTIC LAB , LLC

*Thanks for going Nmotion. 3407 N. Broadway, Knoxville, TN 37917 1-865-765-5650
1-888-424-8832 Fax: 1865-688-1188 info@nmotion.tv*

Thank You for going Nmotion!

As a valued Nmotion provider, you will enjoy:

- Free pick up and delivery**
- Free replacement casting supplies**
- Quick turn around on all adjustments and repair**

This Guide will introduce you to the comprehensive design and options offered by Nmotion Orthotic Lab.

If you don't see it here, ask us. We are always open to special request.

Inside, you will find the following information:

- The Nmotion Rx form**
- Illustrations of the full orthotic line**
- Sample configurations for individual needs**
- Illustrations and explanations of modifications**
- A detailed shell width sheet**
- A patient weight /shell thickness guide**
- Our warranty and refurbish details**

All this information and much more will soon be available for download at Nmotion.tv or Nmotionlab.com

**Contact Information: Phone: 865-765-5650
Alt Ph: 865-688-9495
Fax: 865-688-1188**

Email: info@nmotion.tv

ORTHOTIC LAB, LLC

Account Name _____

Ship To _____
 City _____ St _____ Zip _____

PO# _____ Phone# _____

Patient Name _____

PAYMENT METHOD Check# _____ \$ _____
 MC Visa AMEX Bill card on file Bill my Nmotion Account

Card # _____ Gender M F Age _____ Weight _____

Name on Card _____ Exp. Date _____ Shoe Size _____ Shoe Style _____

Billing Address: _____ Return Cast (\$5.00 with original order) Call me
 City: _____ State: _____ Zip: _____

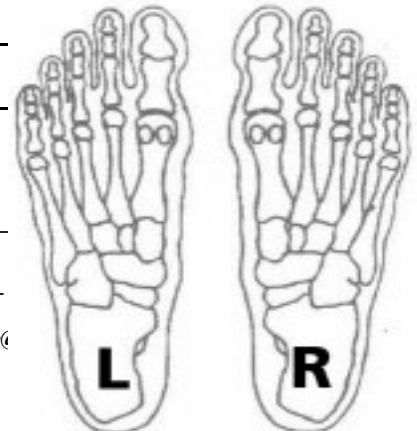
Orthotic Profile <input type="checkbox"/> N-Sport <input type="checkbox"/> N-Dress Reg High <input type="checkbox"/> N-Cobra <input type="checkbox"/> N-Control (Shaffer) <input type="checkbox"/> N-Soccer / Cleats <input type="checkbox"/> N-Skate / Ski	Shell Material <input type="checkbox"/> Polypropylene 1/8 (STD) <input type="checkbox"/> Polypropylene 3/16 <input type="checkbox"/> Graphite <input type="checkbox"/> Pelite/Eva (Soft, 35) <input type="checkbox"/> Pelite/Eva (Firm, 50+) <input type="checkbox"/> Subortholene 1/8 _____	Shell Modifications <input type="checkbox"/> Left <input type="checkbox"/> Right Fill Arch <input type="checkbox"/> Left <input type="checkbox"/> Right First Met Cutout <input type="checkbox"/> Left <input type="checkbox"/> Right First Ray Cutout <input type="checkbox"/> Left <input type="checkbox"/> Right Flange Lat <input type="checkbox"/> Med <input type="checkbox"/> <input type="checkbox"/> Left <input type="checkbox"/> Right Gait Plate In <input type="checkbox"/> Out <input type="checkbox"/> <input type="checkbox"/> Left <input type="checkbox"/> Right Heel Spur Hole <input type="checkbox"/> Left <input type="checkbox"/> Right	Shell Width <input type="checkbox"/> Narrow (Bisect 1 st & 5 th) <input type="checkbox"/> Medium (Bisect 1 st Outside 5 th) <input type="checkbox"/> Wide (Outside 1 st & 5 th)
Post Heel <input type="checkbox"/> Lab Discretion <input type="checkbox"/> Extrinsic <input type="checkbox"/> Intrinsic Right: Medial _____ Lateral _____ Left: Medial _____ Lateral _____	Post Forefoot <input type="checkbox"/> Lab Discretion <input type="checkbox"/> Extrinsic <input type="checkbox"/> Intrinsic Right: Medial _____ Lateral _____ Left: Medial _____ Lateral _____	Heel Cup <input type="checkbox"/> Low (8mm) <input type="checkbox"/> Standard (12mm) <input type="checkbox"/> Deep (15mm) <input type="checkbox"/> X-Deep (18mm)	Heel Lift (enter amount) Right _____ Left _____
Cover Length <input type="checkbox"/> 3/4 Cover Shell <input type="checkbox"/> 7/8 To Sulcus <input type="checkbox"/> Full length	Top Cover <input type="checkbox"/> Vinyl <input type="checkbox"/> 1/8 Pelite/Eva <input type="checkbox"/> 1/16 Spenco <input type="checkbox"/> 1/8 Spenco	Cushion (Same length as cover) <input type="checkbox"/> 1/16 PPT/Poron <input type="checkbox"/> 1/8 PPT/Poron <input type="checkbox"/> 1/8 Pelite/Eva	Add Forefoot Cushion <input type="checkbox"/> 1/16 PPT/Poron <input type="checkbox"/> 1/8 PPT/Poron <input type="checkbox"/> 1/8 Pelite/Eva Dancer Pad <input type="checkbox"/> Left <input type="checkbox"/> Right
Metatarsal Pads <input type="checkbox"/> Left <input type="checkbox"/> Low 1/16 <input type="checkbox"/> Right <input type="checkbox"/> Medium 1/8 <input type="checkbox"/> Soft <input type="checkbox"/> High 3/16 <input type="checkbox"/> Firm	Met Pad Width <input type="checkbox"/> Narrow (Inside 2 & 4) <input type="checkbox"/> Medium (Bisect 2 & 4) <input type="checkbox"/> Wide (Outside 2 & 4) <input type="checkbox"/> Neuroma Pad(as marked)	Morton's Extension <input type="checkbox"/> Left <input type="checkbox"/> Right Reverse Morton's <input type="checkbox"/> Left <input type="checkbox"/> Right Tendon Relief Track <input type="checkbox"/> Left <input type="checkbox"/> Right <input type="checkbox"/> Digit Cutout Left 1 2 3 4 5 <input type="checkbox"/> Cutout w/"U" Right 1 2 3 4 5 Navicular Relief <input type="checkbox"/> Left <input type="checkbox"/> Right	Heel Padding <input type="checkbox"/> Full 1/8" <input type="checkbox"/> Horseshoe Extend Pad Proximal to Navicular <input type="checkbox"/> Cuboid <input type="checkbox"/>

Send Address Labels Rx forms Info on Ritchie and Arizona Braces Info on 3D Scanner Program

Add Instructions: _____

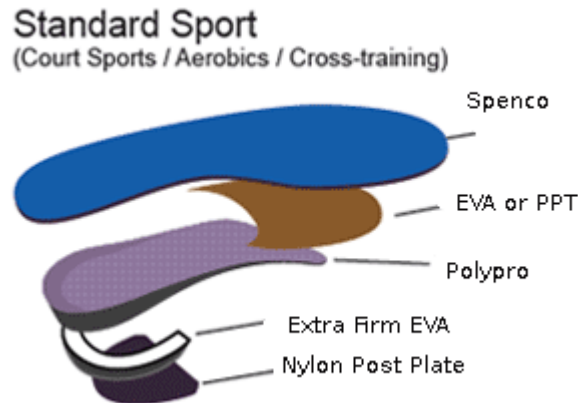
Physician's Signature Required: _____ Date: ____/____/____

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N-Sport Orthotics



Standard Sport

Deeper Heel Cup
Polypropylene Shell, (Optional Subortho or Graphite)
Shock Absorbent Full-length Neoprene Top-Cover
1/8" forefoot full length EVA extension
Extrinsic EVA Hind-foot post with Nylon strike plate

- Designed to fit into athletic shoes or footwear with greater volume
- Has a deeper heel cup for increased medial/lateral Hind-foot control
- A good choice for sports that involve high foot impact forces

Optional Top-covers: Vinyl top-cover, Vinyl over PPT cover, 1/8" EVA Swirl top-cover
Can be Vacuum formed or direct milled

Did you know?

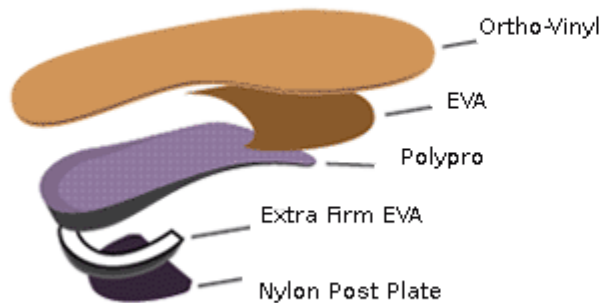
Nmotion has been making sport orthotics for all levels of athletes for over two decades. *Our sport orthotics have been in the Olympic Triathlon and gone over the high bar to win Olympic Gold! They have been in the NBA, the WNBA, Major League Baseball and the NFL. At least five NCAA championships have been won by athletes in our orthotics.*

N-Sport Sport Specific Orthotics

Low Profile Sport

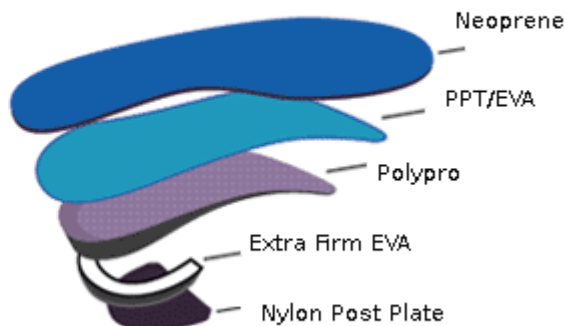
Low Profile Sport

Soccer -Cycling -Football -Baseball



Impact Sport

Distance Runners - Tri-Athletes



Shallower Heel Cup
Polypropylene Shell, (Optional Subortho or Graphite)
Shock Absorbent Full-length Vinyl Top-Cover
1/8" full forefoot EVA extension
Extrinsic EVA Hind-foot post with Nylon strike plate

- Designed to fit into athletic shoes or footwear with decreased volume
- Has a shallower heel cup for some medial /lateral Hind-foot control
- A good choice for sports that require cleats, quick reverse and lateral movements

Optional Top-covers: Neoprene top-cover, Vinyl plus PPT cover, 1/8" EVA Swirl top-cover

Max Impact Sport

Polypropylene Shell, (Optional Subortho or Graphite)
Deeper Heel Cup
Double top-cover for maximum shock absorption
1/16" PPT , plus 1/8" Neoprene to Toes
Extrinsic EVA Hindfoot Post with Strike Plate

- Good choice for sports that involve high foot impact forces (Long Distance Running).
- Also good for the industrial athlete that is on his/her feet for a large proportion of the day
- Designed to fit into athletic shoes or shoes with greater volume
- Deeper heel cup for increased medial/lateral control

Optional Top-covers: Neoprene top-cover, Vinyl plus PPT cover, 1/8" EVA Swirl top-cover

Did you know?

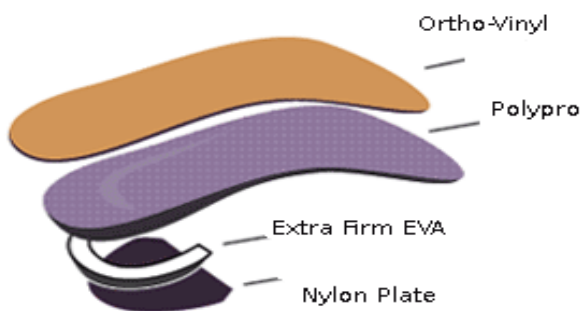
Orthotics make it possible for older athletes to extend their active life for many years.



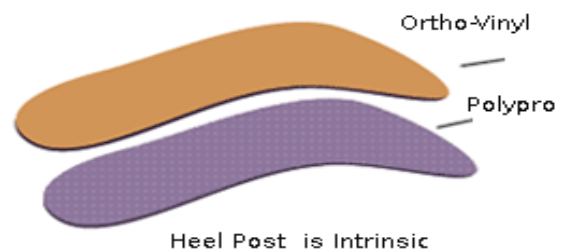
N-Dress Reg = 1/2"-1 1/2" N-Dress High = Over 1 1/2" Heels

N-Dress Functional Orthotics

N-Dress w/ Ext. Post



N-Dress w/ Int.Post



Men's or Women's Dress External Post

Polypropylene Shell, (Optional Subortho or Graphite (add 16.00 for Graphite))
Low Heel Cup – (Shallow Schaffer shell design)
3/4 length Vinyl top-cover
Extrinsic Hind-foot/Intrinsic Fore-foot post

- For low flat lace-up dress shoes
- Slim design with shallow heel cup
- Designed with Extrinsic Hind-foot/Intrinsic Fore-foot posting to minimize bulk
- Available in: Flexible, Semi-flex, Semi-Rigid, Rigid

Optional Top-covers: Neoprene top-cover, Vinyl over PPT cover, 1/8" EVA top cover

Men's or Woman's Dress Intrinsic Post

Polypropylene Shell, (Optional Subortho or Graphite)
Flat Heel Cup
3/4 length Vinyl top-cover
Intrinsic Hind-foot/Fore-foot post

- For flat slip-on dress shoes
- Slim flat design with flat heel cup
- Designed with Intrinsic hind-foot/Fore-foot posting to minimize bulk
- Provides limited Hind-foot control
- Available in: Flexible, Semi-flex, Semi-Rigid, Rigid

Optional Top-covers: Neoprene top-cover, Vinyl over PPT cover, 1/8" EVA top cover

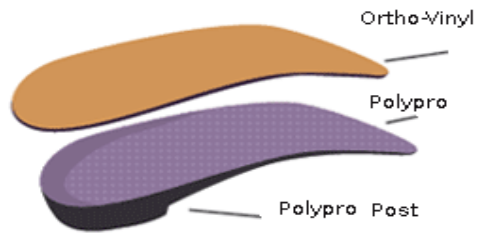
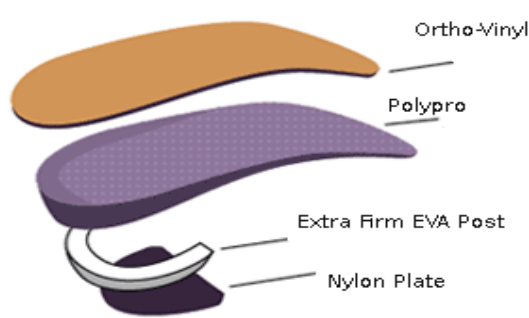
Did you know?

The Pedorthists at Nmotion Lab have been serving medical practitioners since 1980.

N-Control Functional Orthotics

Standard (Schaffer Shell Design)

Direct Milled



Standard (Schaffer Shell Design)

Polypropylene Shell, (Optional Subortho or Graphite)

$\frac{3}{4}$ length Vinyl top-cover

Extrinsic EVA Hind-foot post with Nylon strike plate

- Best all around design for day-to-day use, fits into a wide variety of lace footwear
- Supports most mild to moderate foot type
- Graphite shells tend to be lighter and are less bulky than Polypropylene
- Available in: Flexible, Semi-flex, Semi-Rigid, Rigid (add 16.00 for Graphite)

Optional Top-covers: Neoprene top-cover, Vinyl over PPT cover, 1/8" EVA Swirl cover

Direct Milled

Direct Milled Polypropylene Shell

$\frac{3}{4}$ length Vinyl top-cover

Includes Polypropylene Hind-foot Post

- Best all around design, fits into a wide variety of footwear
- Supports most mild to moderate foot types
- Available in: Flexible, Semi-flex, Semi-Rigid, Rigid

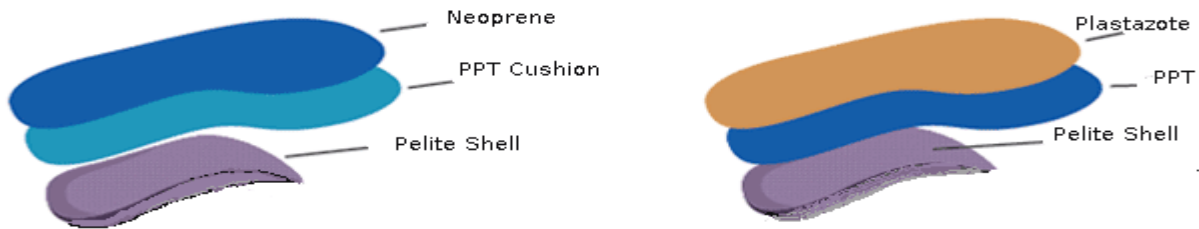
Optional Top-covers: Neoprene top-cover, Vinyl over PPT cover, 1/8" EVA Swirl cover

Did you know?

Nmotion options allow you to design an orthotic for any combination of control or shock reduction.



Soft & Accommodative Orthotics for Arthritic and Diabetic Use



Pelite Shell (35 soft or 55 semi rigid durometer)
¾ length / Sulcus or Full length shell
Full Length Neoprene Top-cover
PPT or EVA Arch Fill

Designed to provide increased cushioning and flexibility for sensitive feet or high impact athletics

Soft frame allows for greater patient compliance

Fits into athletic shoes or shoes with greater volume

Also makes for an excellent comfort ski boot orthotic. Optional Top-covers: 1/8" EVA Swirl top-cover.

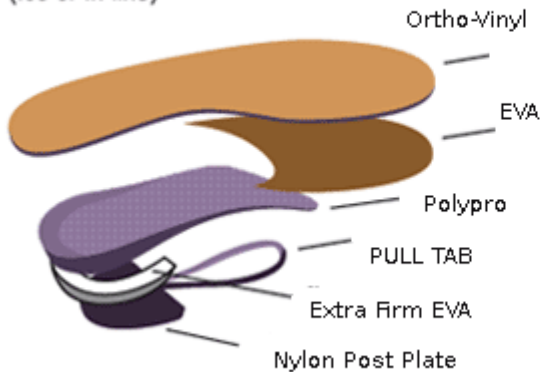
Full Length 3.0mm PPT/Plastazote Top-cover

- Provides maximum cushioning and pressure relief for sensitive feet - Diabetics/Arthritics
- Designed to fit extra depth Orthopedic footwear and athletic shoes
- Different layers provide gentle support for bottom of foot and can accommodate soft tissue and bony deformities
- Designed to provide increased cushioning and flexibility for sensitive feet or high impact athletics
- Soft frame allows for greater patient compliance

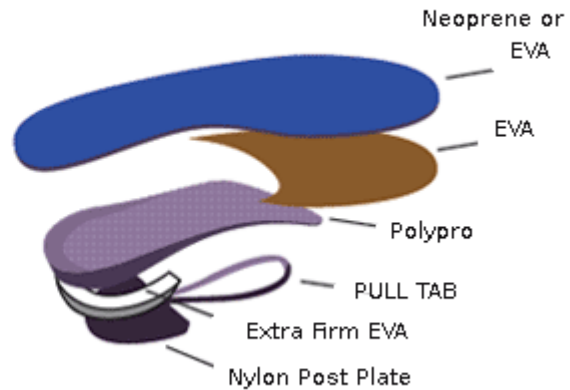
Did you know? Nmotion orthotic lab has been serving medical practitioners since 1980.

N-Skate and N-Ski Sport Orthotics

Skate (Ice or In-line)



Ski



Skate (Ice or In-line)

Low Profile
Polypropylene Shell (Optional Subortho or XT Graphite)
Full Length Vinyl Top-cover
Full Length 1/16" EVA extension
Extrinsic Hind-foot/Intrinsic Fore-foot post

- Designed specifically for ice hockey, figure, or in-line skates
- Superslim shell with full length 1/16" EVA Fore-foot extension

Note: Please supply skates with casts to minimize fitting difficulties.

Ski

Low Profile
Polypropylene Shell (Optional Subortho or XT Graphite)
Full Length EVA Swirl Top-cover
Full Length 1/16" EVA extension
Extrinsic Hind-foot/Intrinsic Fore-foot post

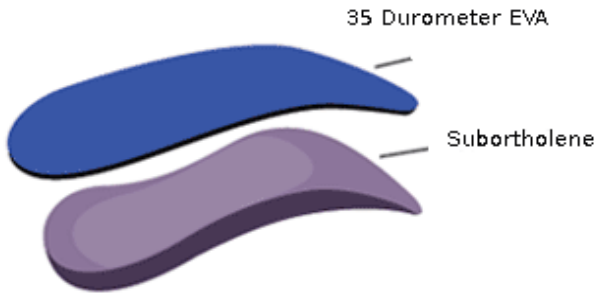
- Designed specifically for ski boots
- Super slim shell with full length 1/16" EVA Fore-foot extension

Note: Please supply ski boots with casts to minimize fitting difficulties.

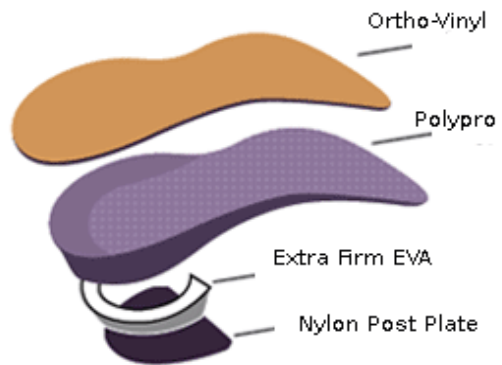


UCBL and Roberts Whitman

UCBL



Roberts Whitman



UCBL

Deep 30 mm (or greater) Heel Cup
 3/4 length 1/16" EVA Top-cover
 Subortholene shell
 Intrinsic Hind-foot post

- Primarily a pediatric orthotic with a very deep heel cup (30mm or greater)
- Provides excellent subtalar and calcaneal control
- Appropriate for Pes Planus / Hypermobility flat feet
- Available in: Semi-flex, Semi-Rigid, Rigid

Optional Top-covers: Neoprene top-cover, Vinyl top-cover, Vinyl over PPT top-cover

Roberts Whitman

Classic design for improved lateral control
 3/4 length Vinyl top-cover
 Polypropylene Shell (Optional Subortho available)
 Extrinsic Hind-foot post

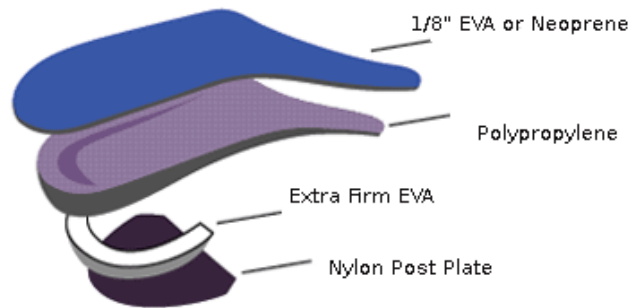
- Designed with higher lateral flange for increased control
- Fits in a wide variety of footwear
- Available in: Flexible, Semi-flex, Semi-Rigid, Rigid

Optional Top-covers: Neoprene top-cover, EVA Swirl cover, Vinyl over PPT top-cover

Did you know? UCBL stands for University of California Berkly Laboratory.



Child's Gait Plate for Toe-in or Toe-Out



Polypropylene Shell (Optional Subortholene available)
EVA top-cover
Extrinsic Hind-foot post

A good choice for children 2-10 years with excessive in-toeing(pigeon-toed) or out-toeing (duck feet)

Angled shell encourages straighter foot alignment when walking

-For out-toeing, the shell is designed to extend from proximal to the 5th MTP joint to the 1st toe to promote internal rotation at toe-off







-For in-toeing, the shell is designed to extend from proximal to the 1st MTP joint to the 5th toe to promote external rotation at toe-off.

These devices are most effective when worn in combination with footwear with a flexible Fore-foot.

Did you Know?

Nmotion also offers custom Ritchie Braces and custom Lace-up Gauntlets for ankle instability.

POPULAR SHELL MODIFICATIONS

	<p>1st Ray Cutout Angled grind of distal medial shell from lateral 1st met head to distal edge of navicular. Indicated for plantar flexed 1st ray, supinators and hallux limitus.</p>		<p>1st Met Cutout A 45° angle to distal medial edge under 1st met head. Indicated for functional hallux limitus and supinators.</p>
	<p>Medial Flange Raised medial trim line of orthotic shell to support MLA. Indicated for severe pronation, and strong midfoot evertors.</p>		<p>Lateral Flange Raised lateral trim line of orthotic shell to support LLA. Indicated for supinators and limits inversion sprains.</p>
	<p>Heel Hole Standard 1” hole centrally located in heel cup with poron plug. Indicated to accommodate heel spurs and plantar fasciitis where spur padding would be too thick.</p>		<p>Arch Fill Soft 35 durometer or firm 55 durometer padding laminated to plantar aspect of shell. Indicated to add rigidity to MLA of shell and/or add shock absorption.</p>

Did you Know?

Nmotion does not apply any additional charges for these shell modifications.

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POPULAR ORTHOTIC OPTIONS

	<p>Metatarsal Pad Standard 1/8" poron pad indicated for dropped transverse arch, metatarsalgia, interdigital neuromas and bursitis.</p>		<p>Metatarsal Accom Pads Standard 1/8" nyplex pad extending across the 1st met head to 5th met head distally to sulcus. Indicated for redistribution of pressure across the met heads.</p>
	<p>Morton's Ext. Standard of 1/8" nyplex, 1/8" eva or rigid out of shell extension placed under the 1st MTP joint. Indicated for dorsiflexed 1st ray, hallux rigidus or short 1st ray.</p>		<p>Morton's Rev. Ext. Standard 1/8" nyplex pad extending from medial aspect of 2nd met head to 5th met head distally to sulcus. Indicated for plantar flexed 1st ray, hallux limitus and sesamoiditis.</p>
	<p>Kinetic Wedge Also known as Dancer's Pad, or Sesamoid pad. Standard of 1/8" nyplex met accom pad with 1" punch under 1st med head. Indicated for sesamoiditis, dropped 1st met head and functional hallux limitus.</p>		<p>Heel Cushioning Standard 1/16" nyplex cushion pad. Indicated for non-centrally located heel spur, loss of fat pad, PF pain or rear foot shock absorption.</p>
	<p>Heel Spur Pad Poron thickness dependant on heel cup height. Intended to lift calcaneus off the orthotic for centrally located heel spur.</p>		<p>Amputation Filler Used to keep remaining toes in alignment and/or prevent shoe collapse on distal aspect of amputation.</p>





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POPULAR ORTHOTIC OPTIONS

	<p>NEUROMA PAD</p> <ul style="list-style-type: none"> • Similar to a metatarsal pad but this pad is narrower and is placed between the metatarsal shafts to separate them and increase the inter-digital space. 		<p>METATARSAL BAR</p> <ul style="list-style-type: none"> • A bar that travels transversely across the anterior edge of the orthotic. It is designed to lift all the metatarsal shafts to reduce pressure on the metatarsal heads. Like the met pad, it goes approximately 2-3mm past the distal edge of the orthotic. EVA is added to the anterior edge of the shell. Can be incorporated into a soft shell design.
	<p>RIGID TOE EXTENSIONS</p> <ul style="list-style-type: none"> • Incorporated into the shell design to limit toe extension. Is used when MTP joint function is diminished or when pain is experienced in this area during toe-off. 		<p>HEEL LIFT</p> <ul style="list-style-type: none"> • Can be attached to the orthotic via an Extrinsic EVA Hind-foot post or supplied as a separate EVA wedge. Please indicate on order form.

Optional Top-Covers: All available in 3/4, Sulcus or Full Length. VINYL, Vinyl over PPT. LEATHER, NEOPRENE, EVA, Plastazote

ORTHO-VINYL • is an excellent waterproof and durable marine grade cover which mimics the feel and texture of a leather cover without the propensity of leather to separate from the shell after absorbing perspiration.

EVA -available in 1/16" and 1/8" • A closed cell foam cover material, that provides excellent shock absorption and resists bottoming out. Available in two thicknesses. Recommended for people who are allergic to neoprene products or who are involved in high friction sports.

PLASTAZOTE – 1/8", 3/16," and 1/4" • A closed cell foam that is hypoallergenic and contours easily to the foot. It also moves with the skin surface reducing the chance of friction problems. It does bottom out (pack down) very quickly and should be used with an underlay of PPT. Is generally used in conjunction with PPT for the diabetic foot.

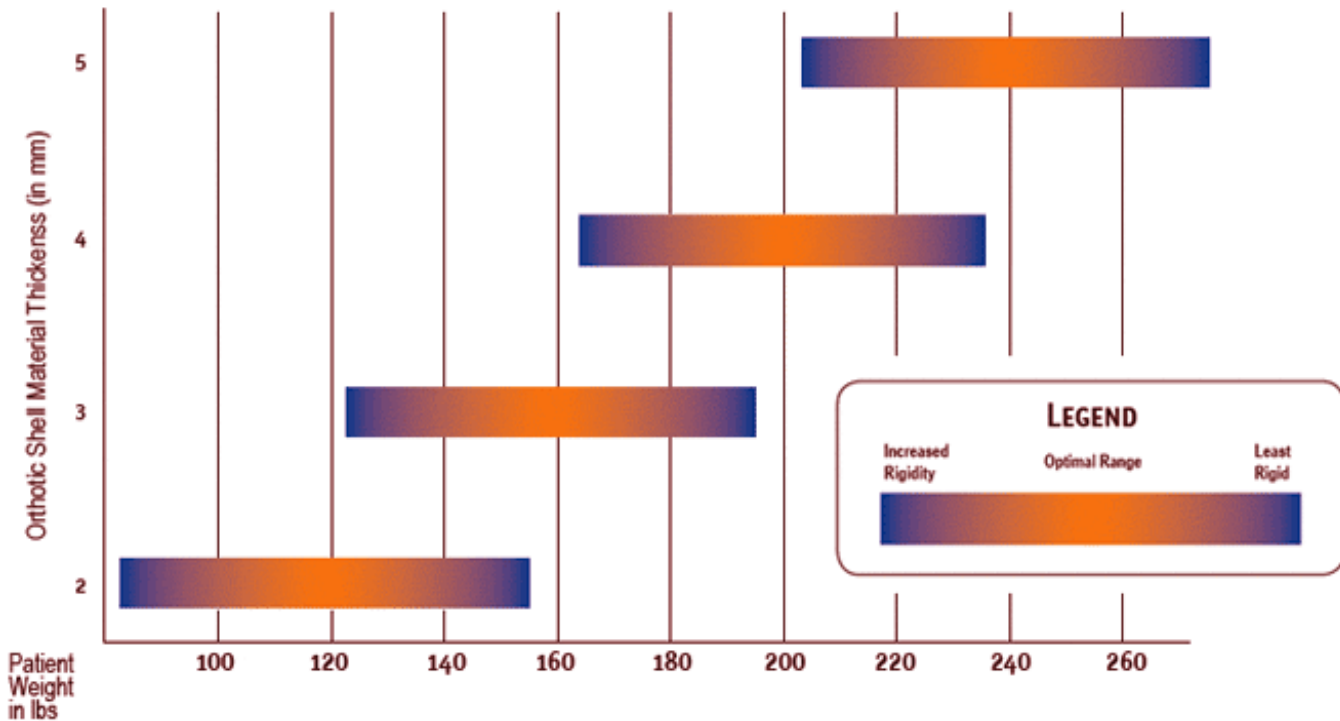
PPT - 1/16" and 1/8" • PPT is a highly shock absorbent material that resists bottoming out. It is an excellent material to use between the shell and the topcover.

NEOPRENE - 5/32" and 1/8" • A Flexible and stretchable rubber material with a nylon cover excellent for athletic and high friction activities.

COMBINATION COVERS • Most of the above topcover materials can be combined.

Did you Know? Nmotion saves all your patient's cast in a secure database so orthotics can be duplicated in the future.

Selecting Proper Shell Thickness



When selecting the thickness of the material, you should consider: 1) Body weight, 2) Foot shape, 3) Patient type.

KEY NOTE:

The higher the MLA; and, the deeper the heel cup, the more rigid the orthotic is going to be.

Therefore, it is important to consider foot type as well as body weight.

In most cases, the objective is to reduce the velocity and magnitude of the pronation, but not necessarily to limit it entirely.

Nmotion Pedorthists will be pleased to consult as to materials and rigidity needs for your patients at anytime.

Body Weight:

Orthotic ordering usually follows “the weight to thickness ratio” where the heavier a person is, the more rigid we need the orthotic to be to resist deformation, and the lighter they are, the thinner the material to allow for some natural flex.

HOWEVER...

Foot Shape:

It is also important to remember that a person who has a high arch will generally require an extra cushioning or “shock absorbing” orthotic. Conversely, a person with a flatter arch will need a slightly more rigid orthotic in order to give them the support that they require to put their foot into a neutral position.

Foot Type:

The next thing to consider is the foot we are supporting with the orthotic. If the foot is very flexible and a lot of control is required, we will tend to use more rigid materials. If there is little joint motion available in the foot, then little control over that motion can be achieved. In this case, a less rigid material should be chosen.

REMEMBER... the objective is to provide an orthotic that will assist the foot in functioning to cushion any excessive impact.

Did you Know?

Nmotion also offers custom Ritchie Braces and custom Lace-up Gauntlets for ankle instability.

FULL WIDTH



Orthotic Lab, LLC

Device Widths and Specifications

BISECT 1st

BISECT 1-5½

BISECT 1-5

BISECT 1-4

Standard Widths for Nmotion Devices

N-Sport	Bisect 1 st	N-Dress	Bisect 1-5	N-Soccer	Bisect 1st
N-Cobra	Bisect 1-5	N-Control	Full Width	N-Skate	Bisect 1st

We at Nmotion look forward to serving the needs of your patients. Please call on us for any special request or further information.

- Mike Hosford, C. Ped.