

SOLO[®]

LABORATORIES, INC.

SOLO Laboratories, Inc.
415 South Laurel Street, Kutztown, PA 19530
P-800-765-6522
F-610-683-6427
www.sololabs.com

SOLO stands for *Serve Others Love Others*. We aim for this daily goal by knowing our customers and caring for them personally leading to long term relationships. Our knowledgeable and professional staff work to provide you with exceptional customer and technical support. We are here to help you!



Please visit our website www.sololabs.com for updated order forms and more information about our products and services. Please call (800-765-6522) with any questions you may have. Anyone on the Customer Experience Team will be able to help you.

LAB STANDARDS

DEVICE	PLATE MATERIAL*	HEEL CUP DEPTH	DEVICE WIDTH	DEVICE LENGTH	EXTENSION LENGTH	REARFOOT POSTING**	TOP COVER
Functional	3D-B Printed or 1/8" Poly	12mm	Standard	To mets	To mets	Extrinsic to vertical	Leatherette
Dress	3D-B Printed or 1/8" Poly	8mm	Hourglass	To mets	To mets	Intrinsic to vertical	Leatherette
Limited	3D-B Printed	12mm	Standard	To mets	To mets	Extrinsic to vertical	Leatherette
Accommodative	Cork	12mm	Standard	To toes	To toes	Intrinsic to vertical	P-cell

*Plate thickness chosen according to patient weight. Please refer to weight chart. If weight not given, thickness will be chosen as shown above. Default plate material is 3D printed when possible.

**Forefoot posting standard is intrinsic to cast.

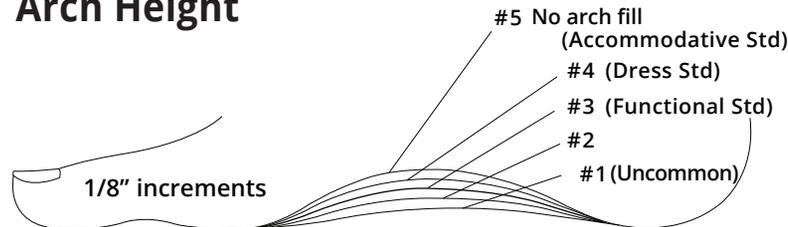
ACCOMMODATIONS

Thickness	1/8"
Medial Flange	Medium
Medial Heel Skive (Kirby Skive)	4mm
Heel Lift	Crepe
Runner's Wedge	3 degree crepe
Cutout	Requires padding - circular shape
Channel	Requires padding - rectangular shape

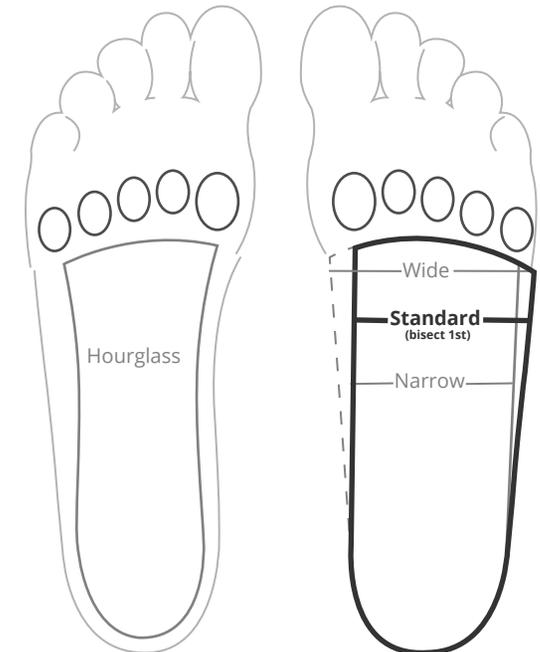
ORTHOTIC PADDING MATERIAL

Thickness	1/8"
Length	Match top cover length

Arch Height



Shell Width



Completing order forms significantly reduces lab questions, expediting orders into production. Should any section be left blank, Lab Standards will be used.

REVISED 2026-01-12

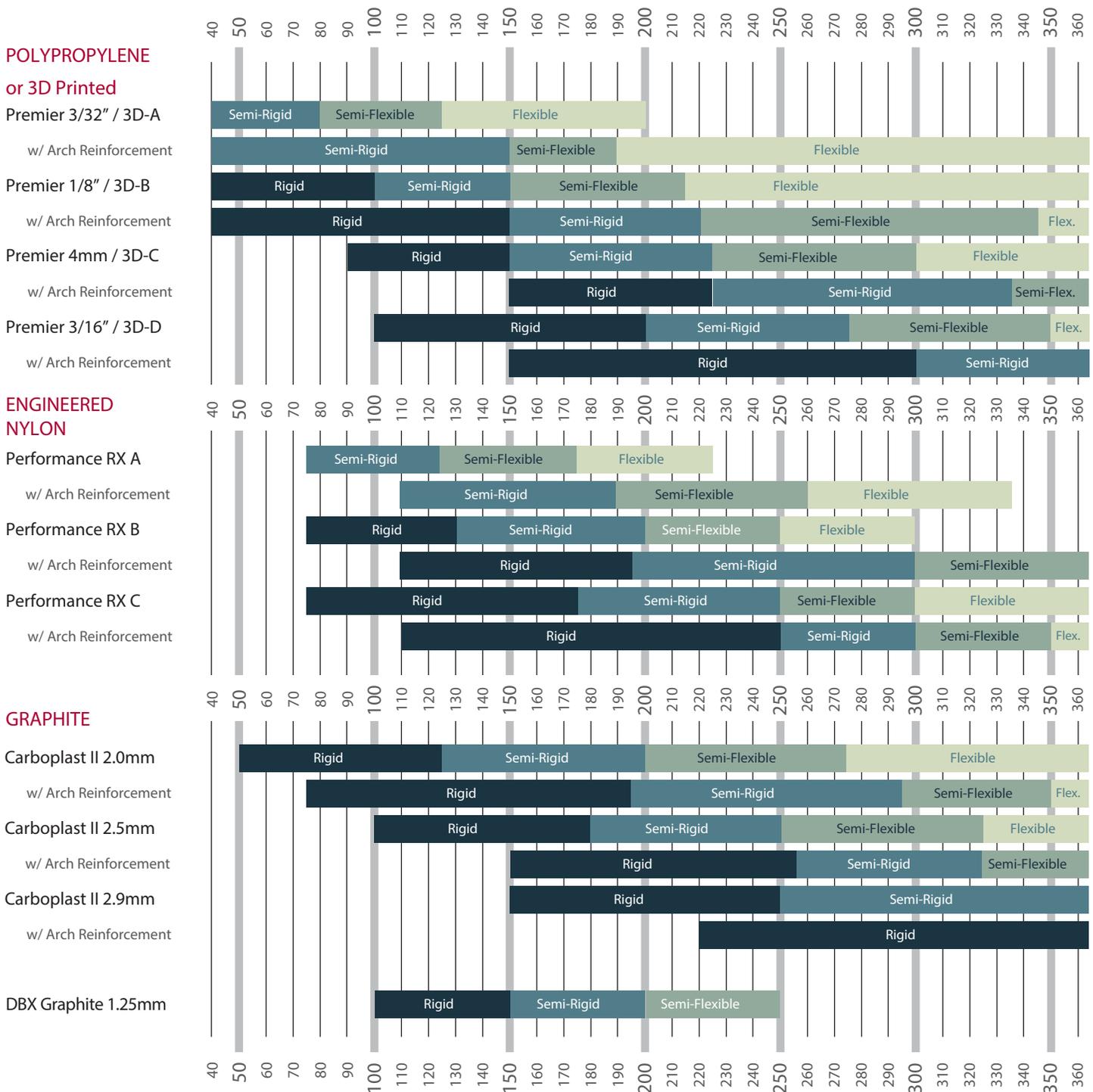
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2026-02-18

SOLO

FLEXIBILITY & WEIGHT CHART

Patient Weight in Pounds



Note: Higher arches or the selection of a flange will increase rigidity

Device Widths

Wide: width of the orthotic shell is the width of the foot, medial to lateral aspect.

Standard: width of the orthotic shell runs from the center of the 1st met head to the lateral aspect of the foot. (LAB STANDARD)

Narrow: width of the shell runs from the center of the 1st met head to the center of the 5th met head.



ARCH HEIGHT

#1= very rarely requested

#2= $\frac{3}{8}$ " lower from the full arch height of the cast

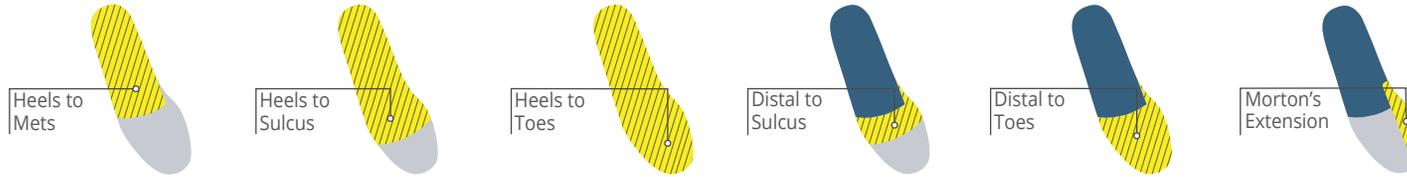
#3= $\frac{1}{4}$ " lower from the full arch height of the cast

#4= $\frac{1}{8}$ " lower from the full arch height of the cast

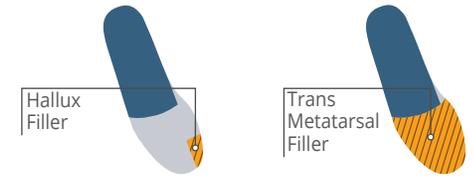
#5= full arch height from the cast

PADDINGS & EXTENSIONS

Paddings and Extensions



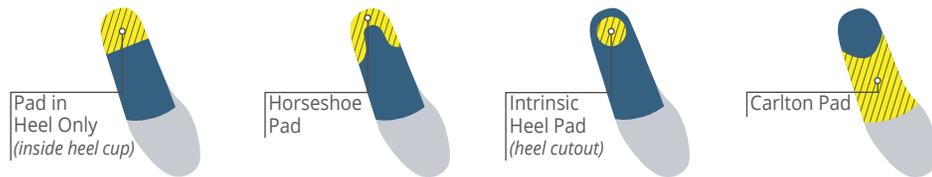
Toe Fillers



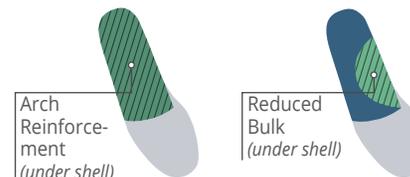
Other Paddings



Heel Spur Accommodations



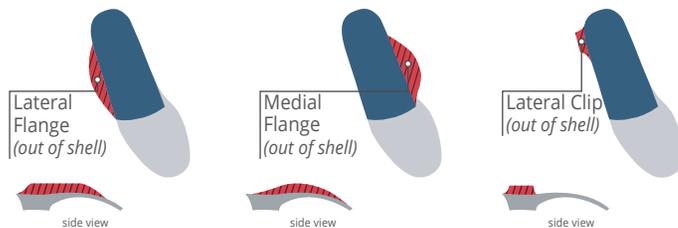
Arch Reinforcement



Posting



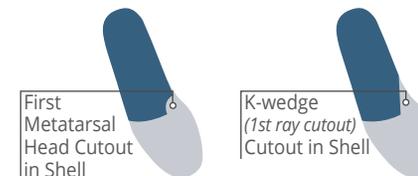
Flanges and Clips



Gait Plates



Cutouts in Shell



Morton's Extension in Shell





Top Cover Options

Leatherette (Synthetic leather)

Standard top cover - our most durable and long-lasting option. Suitable for latex allergies.

P-Cell

High-density soft, closed-cell, ethylene vinyl acetate (EVA) foam. It is lightweight, flexible, resilient, and durable. An ideal top cover for diabetic patients with sensitive feet.

Bamboo

Padded fabric top cover is moisture-absorbing and quick-drying with antibacterial protection to reduce odors. Embedded natural charcoal fibers promote circulation, and support consistent body temperature. Available in 1/8" only.

Neoprene

Padded fabric top cover is moisture-absorbing and quick-drying with antimicrobial protection to reduce odors. Featuring Silpure, with ultra-fine silver crystals that release silver ions as needed to prevent bacterial growth. Available in 1/16" and 1/8" thicknesses.

EVA (Similar to Ucolite™)

Padded top cover made from an extremely durable material that's moisture-wicking, fast-drying, and provides a secure, anti-slip surface. An excellent choice for athletes and suitable for latex allergies.

Black: 1/16" and 1/8"

Purple/Green Swirl: 1/16" only

Blue Speckle: 1/8" only

Genuine Leather

Natural material, therefore colorations and markings may vary. Not recommended for patients with excessive perspiration.



Material Options

Synthetic Suede (Man-made)

Standard base cover material used on extensions.

Padding

Provides cushion and memory for enhanced comfort.

Available in 1/16", 1/8", and 3/16".

Crepe

Standard material used for extrinsic posts, heel lifts, and medial or lateral wedges.

The following is a breakdown of the most commonly used accommodations incorporated into devices through paddings or shell adjustments.

Accommodation Descriptions

Met Pad: runs from the 2nd-4th MPJ's and is placed just proximal to the met heads (used to help lift the mets to aid in sub met lesions, metatarsalgia, capsulitis and neuromas).

Met Bar: runs across all metatarsals and is placed just proximal to the met heads. Used in the same fashion as a met pad, but to create a greater region of offload.

Cut Out: used to alleviate pressure or a painful lesion. Typically done in a circular fashion, or to the designated size/area on the scan, in the cast or in the biofoam impression. Cut out traditionally done in the padding, but can be requested in the shell. When cut out is in the shell, it can also be plugged with a soft material. Balance pads can also be placed around these areas to increase the offload.

Channel: similar to a cut out, but done in an elongated fashion. If balance pads are done as well, please note they will be extremely oversized.

Balance Pad: open at one end, or "U" shaped, to build up around an area of interest to increase offload in that region. It can be used in conjunction with a cut out.

Morton's Extension: a built up extension under the 1st ray which can be made from soft or firm material or made from the plate. Useful in any condition where the 1st MPJ is not accepting its full share (50%) of body weight. Typically stops at the IPJ, but can be run to the DIP or all the way to the end of the toe upon request.

**SOLO does not warrant the Morton's Extensions in the graphite shell against breakage.

Arch Reinforcement: soft material placed on the plantar aspect of a shell to provide shock absorption and/or rigidity to a device. Standard padding runs from the medial to lateral side. If reduced bulk is requested, the material is placed on the medial side only, thereby still providing shock absorption, but decreasing the bulk and rigidity. Can also request an hourglass skive to the arch reinforcement for better fit in shoes.

Medial Arch Platform (MAP): a horizontal expansion of the shell in the medial arch region to support a collapsed midfoot. Use when shoe room allows and the patient will not tolerate the "control" of a medial flange. It can also be done as a **mini MAP** when shoe room is limited or it is a mild collapse.

Medial Flange: a vertical extension in the shell of the medial arch region to offer pronatory control. Please choose a low, medium or high fashion. The height is measured from the apex of the arch (these are guidelines and heights may vary)
Low: 3/16"-1/4" Medium: 5/16"-1/2" High: 1/2"-7/8"

Lateral Flange: a vertical extension in the shell of the lateral arch region to offer supinatory control.

Lateral Clip: a vertical extension in the shell of the lateral side of the heel cup to offer better RF control.

Gait Plate: a medial or lateral extension of the distal end of the shell, in an angular fashion, to promote in toe or out toe. Typically used in pediatric patients. We suggest a valgus tip post to promote out toe in adults and a varus tip post to promote in toe.

Full Length Shell: an extension of the shell such that the shell length will be the entire length of the foot. Commonly used for severe hallux rigidus, sesamoid fractures, and as a means to promote a more rigid FF when TMA fillers are needed.

**SOLO does not cover these against breakage.

Padded Heel: a soft 1/8" pad (or to your designated thickness and material upon request) placed directly in the entire heel cup to relieve generalized pain, heel spurs, or create an internal lift.

Horseshoe Pad: a soft 1/8" horseshoe shaped pad (or to your designated thickness and material upon request) placed around the posterior portion of the heel cup to create a centralized offloading of the heel for generalized pain, or to help aid in padding a heel with decreased fat pad.

Intrinsic Heel Pad (IHP): an approximate "quarter-sized" cut out in the center of the heel cup in the shell of the orthotic. The cut out is then plugged with soft padding. It will be visible to the eye. If the RF is posted intrinsically, you will see the plug from the bottom of the device. Please note to ask for a full suede base if you want it covered.

Soft Flange: a medial flange made of soft material.

Toe Filler (previously known as buttress): plastizote material used to act as a filler for an amputation site.

Toe Crest: a crescent shaped piece of soft material placed at the sulcus region to lift and separate the toes. Used to aid hammertoes, claw toes, etc.

Reverse Morton's Extension: a sulcus extension under mets 2-5, with the 1st channeled out. Useful to improve 1st ray function. Typically made from a firm material, unless otherwise requested.

Scaphoid Pad: soft or firm material placed in the medial arch area to create better contact with the arch height or cushion it. This can also be done in the reverse fashion to help a "C" foot.

1st Met Cut Out: half-moon notch of the shell at the 1st met. Similar to the k-wedge, but not as sharp or long.

K-Wedge: angled, straight line cut away from the shell at the 1st ray. Allows the 1st met to plantarflex adequately during propulsion.

Plantar Fascial Groove (PFG): a channel placed in the shell or padding to relieve plantar fascial pain and pressure. If this is desired in the shell, we request that you mark the cast, impression or scan.

Dell: a depression made directly into the shell to offload or accommodate an area of interest. Typically done for bony abnormalities.

Runner's Wedge: a sulcus length extension, acting as an extended extrinsic forefoot post made from soft crepe material. Used to accommodate FF varus/valgus deformities, or offer better control in activities where FF control is necessary (running, biking, etc).

Dancer's Pad: a pad which takes pressure off the 1st, 5th, or combination thereof.

Cuboid Pad: a soft pad placed directly under the cuboid region to relieve bony prominences or generalized pain.

The following is a breakdown of the most common conditions asked about and what accommodations are recommended.

Neuromuscular Diseases

* Recommended Accommodations

Morton's Neuroma: benign nerve enlargement between 3rd and 4th metatarsals: * neuroma pad/ met pad/ scaphoid pad

Charcot-Marie Tooth: inherited disease causing muscle weakness due to nerve degeneration: *met pad/ met bar/ lateral wedge/ soft top cover

Diabetes Mellitus: chronic metabolic condition resulting in high blood glucose leading to secondary conditions such as neuropathy and ulcers: *scaphoid pad/ met pad/ met bar/ cut out/ balance pad/ soft, frictionless top cover

Orthopedic Diseases

* Recommended Accommodations

Heel Pain: generalized pain and possible spur of the calcaneus: *heel pads: intrinsic heel pad, padded heel, horseshoe pad

Plantar Fasciitis: generalized heel and foot pain due to the inflamed fascia connecting the heel to met heads plantarly: *scaphoid pad/ heel lift/ extra padding/ plantar fascial groove

Pes Cavus: excessive elevation of the longitudinal arch of the foot: *lateral wedge/ lateral flange/arch reinforcement

Pes Planus: decreased or absent longitudinal arch: *scaphoid pad/ UCBL/ medial arch platform/ extra deep heel

PTTD: acquired flat footed deformity due to dysfunction or failure of the posterior tibial tendon: *UCBL/ heel lift/ Kirby skive/ flanges/ extra deep heel

Ankle Equinus: plantarflexed position of the foot: *heel lift

Hallux Limitus: limited motion of the 1st MTPJ: *Morton's Extension (soft)/ 1st met cut out/ K-Wedge

Hallux Rigidus : total lack of motion of the 1st MTPJ: * Morton's Extension (firm or rigid-dependent upon pain level and amount of motion maintained in joint)

Hallux Valgus: (bunion) subluxation of the 1st MTPJ w/ deviation of the great toe towards the 2nd and enlargement of the 1st met-head: * 1st met cut out/ limit length or keep thin in forefoot

Hammer/Claw/Mallet Toe: crooked, bent or buckled toes causing joints to protrude: *toe crest/met pad

Sesamoiditis: pain/tenderness of the sesamoid bones: *metatarsal bar/ scaphoid pad/ dancer's pad/ soft top cover/ turf toe extension

DISH (Diffuse Idiopathic Skeletal Hyperostosis) or (Forestier's Disease):

inflammation and calcification where tendons and ligaments attach to bone-considered a 2nd form of RA in the podiatric sense, affects the heel and sesamoids causing spurs and tendonitis like symptoms of the ankle: *a well padded device that is flexible and accommodative vs. functional

Freiberg's Infracture: necrosis (bone death) due to obstructed circulation: *soft and functional if s/p surgery, can also be rigid and functional *met pad/ met bar (in pad or shell/ possible turf toe extension/ soft top cover

Haglund's Deformity ("pump bump"): bony enlargement at the back of the heel causing the soft tissue near the Achilles tendon to become inflamed and thereby leading to bursitis: *any (case dependent) *heel lift/heel padding/ frictionless top cover/ oversized balance pad on the posterior heel which stays vertical to create an offload at the bursa

Kohler's Disease: a vascular necrosis of the navicular: *any (case dependent) *scaphoid pad/ balance pad/ medial wedges/medial arch platform

Sever's Disease (calcaneal apophysitis): heel pain, most common in adolescents, due to overuse of the growth plates and tendons in the calcaneus: *any (case dependent) *extra deep, well padded heel

Dermatologic Diseases

* Recommended Accommodations

Corn: discrete hard area on the skin of a toe: *metatarsal pads/ toe crest pad/ wicking top cover/ cut out/ balance pad

Callus: focal or diffuse area of hyperkeratotic tissue build-up: *metatarsal pad/ soft top cover/ cut out/ balance pad

Dermatitis: red, itchy, inflammation of the skin: *washable top cover

Diabetic Foot Ulcer: a break or hole in the skin: *soft top cover/ metatarsal bar/ cut out/ balance pad

Ehlers-Danlos Syndrome: rare, inherited connective tissue disease characterized by joint hypermobility, stretchy skin and tissue fragility: *scaphoid pad/ soft top cover/soft padding

Plantar Wart: viral infection of the skin resulting in proliferative lesion on the sole of the foot: *metatarsal bar/washable top cover

Venous/Pressure/Arterial Ulcers: case dependent ulcer: *washable, soft top covers/ metatarsal bars, pads/ cut outs/ balance pads

Other Conditions and the Recommended Orthotic Types and Accommodations

Arthritis: inflammation of a joint with possible degenerative changes: utilize a soft/ semi-flexible /flexible shell: create areas of needed offload in the shell or padding: utilize a soft top cover and padding

Bony Deformities: shell material of choice, case dependent: offload via cut outs in the shell, padding, or balance pads

Bunion: bone enlargement over the medial aspect of the first metatarsal head-may have an inflamed bursa overlying the prominence: shell material of choice, case dependent: utilize cut outs in shell and/or limit length due to toebox restriction

Callus: focal or diffuse area of hyperkeratotic tissue build up associated with increased pressure or shearing forces: shell material of choice, case dependent: utilize “sweet” spots/ met pad/ cut outs in plate and/or padding

Capsulitis: inflammation of a ligament: shell material of choice, case dependent: utilize cut outs/ met pad

Charcot Foot: chronic, progressive, destructive process that breaks down the bones and joints of the foot--usually affects only one foot treat according to stage: accommodative shell materials: utilize “sweet” spots in shell and/or cut outs in shell and/or padding

Diabetes: chronic metabolic condition resulting in high blood glucose leading to secondary conditions such as neuropathy and ulcers: accommodative shell materials: utilize a frictionless top cover and additional padding: create “sweet” spots as needed

A Note About Medial and Lateral Wedging

There are times when a varus or valgus RF post is not enough. Some patients may require some added stability. In order to achieve such, a medial or lateral wedge can be placed from the heel extending the entire length of the shell (to the end of device upon request). The wedge would be skived either medially or laterally, depending on its orientation, and skived well distally. This creates a nice wedge and not a "block" effect. As mentioned, these wedges are typically fabricated from firm material and made to the prescribers designated height.

A Note About the Profile and Performance Rx

The DBX* and Performance RX material comes in predesignated widths. There may be times when a foot is too wide to fit the shell, especially in the heel. Due to this prefab state, we cannot add flanges, MAP's, clips, morton extension in shell, a full width or a low heel cup. The DBX* material is also harder to adjust and only carries a 6 month shell warranty.

A Note About Heel Lifts

Heel lifts can be fabricated using crepe. Depending on the height that is needed, that height can be broken down into 1/8" increments allowing the prescriber the freedom to reduce that height if needed. Heel lifts can also be made to extend the entire length of the shell or the entire length of the foot itself. A general example would be to place an 1/8" of firm material on the entire shell and skive it well distally. An additional 1/8" could then be placed in the heel only to allow a 1/4" total at the heel and create a less drastic "drop off" effect in the FF.

Additional Notes

Please realize there are many accommodations that can be made to devices that may not have been mentioned here. Should you have any questions or suggestions, please feel free to contact us (800-765-6522 or via email) at any time.

Orthotics are an art as much as a science. What works for one patient may not work for another, and we cannot begin to assume a patient's tolerance level for devices until we have "walked in their shoes".

Adjustments may be required along the way to obtain that "perfect" fit. Please familiarize yourself with SOLO Lab's policies on adjustments. Also remember, you can always test-pad a patient if possible and send in the device displaying those changes and the lab can make them more permanent.

Remember when making accommodations directly into the shell or forgetting to add an accommodation that requires extra shell material that these changes cannot always be done. For example, a device cannot be made wider, a heel made deeper, a medial flange in the shell added, or a cut out in a shell removed. Changes like this require a new device to be fabricated.



ORTHOTIC REPLACEMENT PROGRAM

SOLO Laboratories, Inc. offers an ORTHOTIC REPLACEMENT PROGRAM to provide you with new orthotics in the event your current devices are lost, stolen, damaged beyond repair, or outgrown. The purchase of this program entitles you to two (2) new orthotic devices (one pair) for the term of 24 months. (Variations from the original design may incur additional charges. Check with your doctor to see if this applies to you.) This program does not cover your doctor's fees or casting charges.

To enroll, please complete the form below and return it to SOLO Laboratories, Inc. with your payment of \$90.00. Applications must be received within 60 days of receipt of your orthotics. You will receive a certificate from SOLO indicating coverage from the date you received your orthotics to the expiration on the certificate.

To make your claim, your doctor must return your outgrown or broken orthotics and include the certificate with a new cast, foam box, or scan. If you are unable to return the orthotics for any reason, there is an additional charge of \$40.00 per pair or \$20.00 per device. This charge will be refunded if the original devices are returned within three (3) months of the claim date. All claims must be signed by your doctor before fabrication begins.

The plan does not cover items such as top covers, extension, bases, and other fabric or material. These can be replaced at an additional nominal cost.

Please Complete the Entire Form

Patient's Name: _____

Street Address: _____

City: _____ **State:** _____ **Zip Code:** _____

Order Number: _____ **Orthotic Date:** _____

Please send my certificate: via email to _____ via mail to the above address

Doctor's Name: _____

Street Address: _____

City: _____ **State:** _____ **Zip Code:** _____

Payment Method: Check Enclosed Credit Card/Debit Card Health Savings Account (HSA) Flexible Spending Account (FSA)

Name (as it appears on the credit card): _____

Credit Card Number: _____

Expiration: _____ **Security Code:** _____

Enclosed is my payment of \$90.00 made payable to SOLO Laboratories, Inc. I understand and accept the terms and policies of the ORTHOTIC REPLACEMENT PROGRAM.

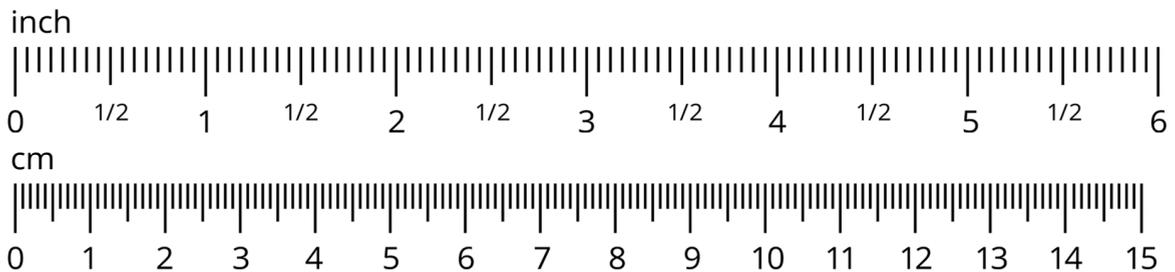
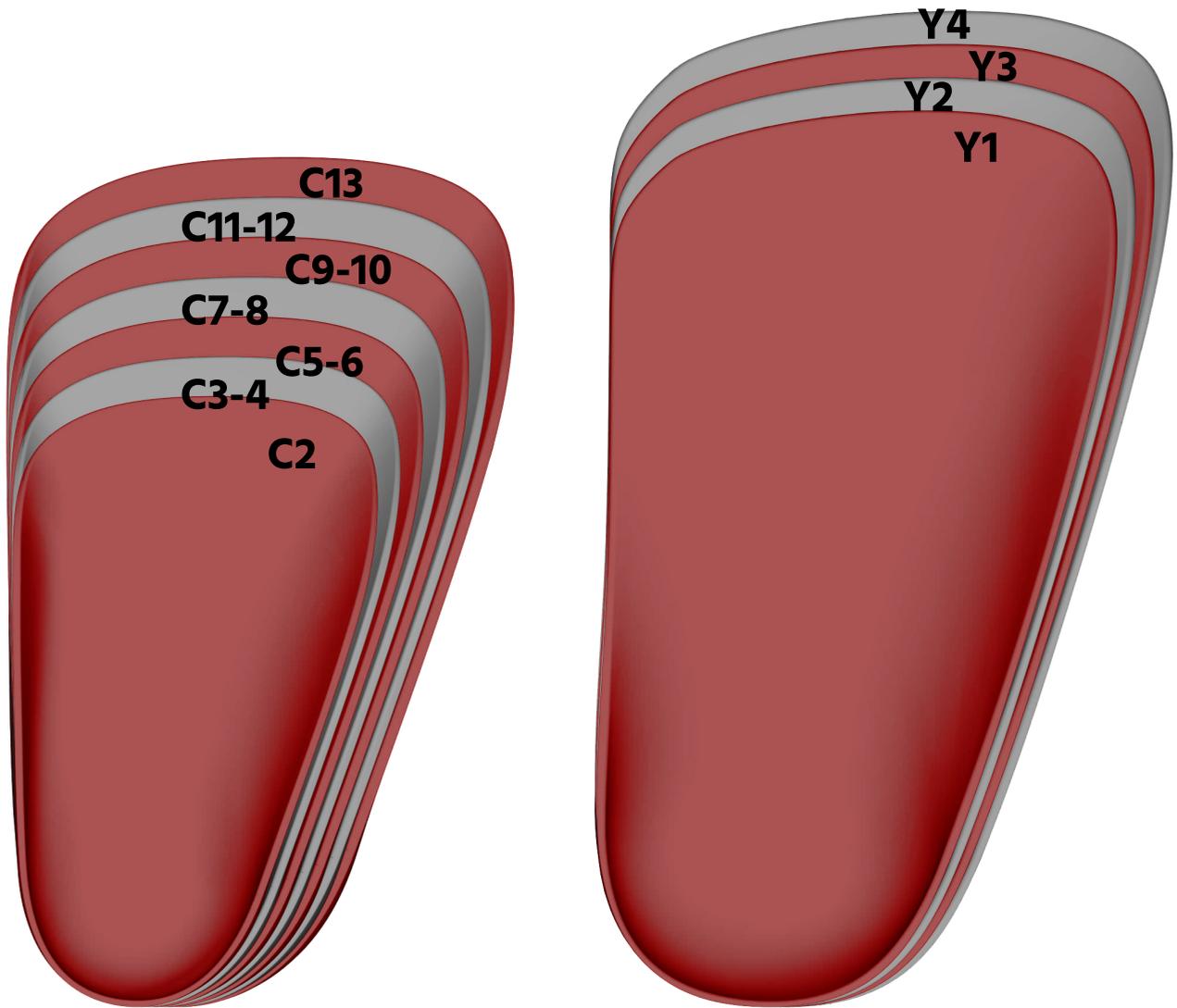
Signature (Parent/Guardian): _____

For Lab Use Only

Authorization Number: _____ Date Received: _____

Payment Type: Check Credit Card/Debit Card HSA FSA

Child & Youth Premold Sizing Chart



SOLO[®]
LABORATORIES, INC.

Treatment Guide

Richie Brace® Products, Indications & Casting



Richie Brace® Standard

- Mild to moderate PTTD
- Lateral ankle instability

Casting Sock Size: Ankle



Richie Brace® Restricted Hinge

- DJD of ankle or rearfoot
- Dropfoot (mild)
- Dropfoot with varus/valgus deformity
- Dropfoot with spasticity
- Unstable knee

Casting Sock Size: Ankle



Medial Arch Suspender

- Moderate to severe PTTD
- Stage II or III PTTD with subluxed T-N Joint

Casting Sock Size: Ankle



Lateral Arch Suspender

- Peroneal tendinopathy fixed varus deformity of hindfoot/ankle
- Severe lateral ankle instability

Casting Sock Size: Ankle



Richie Brace® Dynamic Assist

- Ideal brace for dropfoot
- Cannot be used in: equinus, spasticity and unstable knee or significant frontal plane deformity (varus, valgus)

Casting Sock Size: Ankle



California AFO

- Severe deformity: stage IV PTTD
- Charcot deformity
- Severe DJD of ankle or hindfoot

Casting Sock Size: Mid-leg



Solid AFO

- Severe dropfoot - spasticity
- Charcot arthropathy
- Dropfoot with unstable knee

Casting Sock Size: Full-leg (Bermuda)



Gauntlet

- Rigid, non-reducible adult acquired flatfoot (stage III & IV)
- Severe DJD or deformity of hindfoot
- Charcot arthropathy

Casting Sock Size: Mid-leg



Richie Brace® OTC

- Acute ankle sprain
- Tendinitis of ankle

No Casting. Order S, M, L, XL



Richie Brace® OTC Dynamic Assist

- Paralysis or weakness of ankle muscles
- Peroneal or tibialis anterior tendinopathy

No Casting. Order S, M, L, XL



Gauntlet Semi-Rigid
Custom ankle foot orthotic blending both polypropylene and leather

- Clinical Indications:**
- Charcot deformity
 - Stage III PTTD
 - Rheumatoid arthritis
 - Subtalar joint instability



Traditional Low Profile
Articulating lightweight design with a custom balanced orthotic and OTC padded uprights

- Clinical Indications:**
- Mild to moderate PTTD
 - Lateral ankle instability
 - Peroneal tendinopathy



Gauntlet Flexible
Custom ankle foot orthotic blending both polypropylene and leather

- Clinical Indications:**
- Rheumatoid arthritis
 - PTTD
 - Ankle instabilities
 - Sports injuries



Traditional Standard Profile
Articulating design with a custom balanced orthotic and custom uprights with gel padding

- Clinical Indications:**
- PTTD
 - Severe pronation
 - Subtalar joint instability
 - Sinus tarsi



Gauntlet Articulating
Custom ankle foot orthotic blending both polypropylene and leather

- Clinical Indications:**
- Drop foot



Traditional Gaffney Flexor
Articulating design with a custom balanced orthotic and OTC gel padded uprights includes a removable anterior band

- Clinical Indications:**
- Post op
 - Post injury



Torch Walker
Total Contact Orthotic Restraining Custom Hybrid

- Clinical Indications:**
- Charcot deformities
 - Traumatic injury
 - Chronic plantar ulcerations
 - Equinus contractures



Dynamic Tamarack
Custom balanced orthotic and custom padded uprights with or without posterior bracket.

- Clinical Indications:**
- PTTD
 - Drop foot
 - Subtalar joint instability



Crow Walker
Charcot Restraint Orthotic Walker

- Clinical Indications:**
- Charcot arthropathy
 - Chronic ulcerations



Steady
Custom ankle foot orthotic

- Clinical Indications:**
- Improve balance