

2019 Product Guide



Dr Javier Downey, helping the children of Madagascar

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C-Pro Direct exists to support medical professionals, parents and children affected by paediatric orthopaedic conditions of the lower limbs.

Historically C-Pro Direct has concentrated on products and services to assist with the treatment of clubfoot by the Ponseti Method. C-Pro Direct is the sole European territory importer and distributor of the Ponseti™ Foot Abduction Brace developed by John Mitchell (MD Orthopaedics) and Dr. Ponseti in Iowa.

C-Pro Direct also designs, manufactures and supplies other products to assist with the management of clubfoot and a broader range of medical conditions. Our products include the Abduction Dorsiflexion Mechanism (ADM), which is an advanced dynamic ankle foot orthosis, and the Dorsi Ramp, which is a child friendly device to assist with therapeutic stretching of the achilles tendons and calf muscles.

C-Pro Direct products are available throughout the European Union and the rest of the world. We supply hospitals, resellers and parents. For more details visit www.c-prodirect.com.

ADM Brace and other Social Media

Click on the icons to follow C-Pro Direct on social media!



"You guys have great customer service!"

"I take this opportunity to thank you for the attention you have given me, I am very happy. Thank you."



The Ponseti™ Foot Abduction Brace was developed by MD Orthopaedics in consultation with Dr. Ponseti as a result of problems occurring with other braces.



The Ponseti™ brace consists of sandal type footwear attached to an adjustable bar with built in dorsiflexion. The angle the sandals are held at can easily be adjusted to give the correct level of abduction for the clubfoot.

The sandals are attached to the bar by means of a 'Quick Clip' system which enables the sandals to easily be clipped on to and unclipped from the bar for greater ease of use.

The footwear consists of a footplate, a well moulded soft liner and soft straps. The foot is held securely and there is no slippage. Babies rarely require a period of adjustment and accept the Ponseti™ brace.

The sandals are available in a large range of sizes and can be ordered in split sizes where necessary. The sandals can be attached to either the Ponseti™ Bar or the Mitchell Spring Assisted Dobbs Brace.



Available in Pink, Grey and Blue

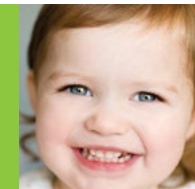


Black Robin Designs



"High quality and very light boots."

"Thank you very much for your attention. The Ponseti boots received without a problem. Congratulations for your great professionalism and excellent customer service."



These bars hold the feet in abduction and dorsiflexion in accordance with the Ponseti Method.

The light and strong bars feature the ultra slim Quick Clip system for attachment of the sandals.

The foot abduction angle and bar width can be easily adjusted as required. The bars are available in three sizes; Long, Short and Extra Short.



The AFO Plantar Flexion Stop (PFS) Sandal has been designed to help children whose feet have a tendency to point downwards (plantarflexion), and have limited dorsiflexion.

The PFS sandal is designed to always hold the foot in either a neutral or a dorsiflexed position. The sandal is also good for children with hyperflexible feet. The sandals are used in conjunction with the standard Quick Clip system on either the Ponseti™ Bar or the Mitchell Spring Assisted Dobbs Brace.



This Ponseti™ AFO with AFO sandals is available in two extra small sizes (Preemies) specifically designed for premature babies. The Preemie sandals are permanently attached to an adjustable bar.

Maximum foot lengths:

Preemie 1: 6.5cm

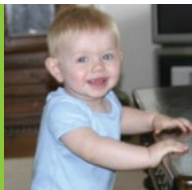
Preemie 2: 6.9cm

The AFO Toe Stilt is a dual purpose sandal designed to support the Ponseti method of treating clubfoot.

It can be worn attached to the Ponseti™ bar in accordance with the Ponseti standard bracing protocol. It can also be worn for short periods outside of the regular bracing times without the bar in order to help the patient maintain good dorsiflexion by stretching the Achilles tendon, helping to keep the foot flexible. This is achieved by the placement of a wedge underneath



the toe section of the sandal. This has the effect of ensuring the foot is always in a dorsiflexed position of 10 degrees when standing. These can be used on either the Ponseti Bar™ or the Mitchell Spring Assisted Dobbs Brace.

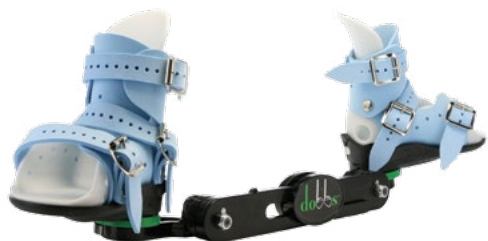


"High quality, fast shipment, excellent customer support. All that parents with clubfoot babies need."

"Perfect... Thank you so much for everything! You guys are amazing."

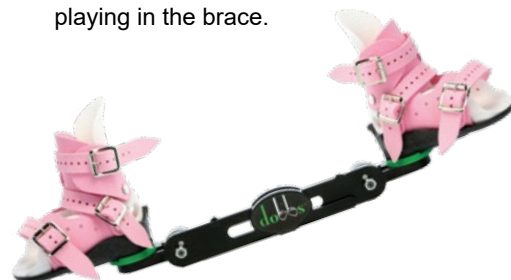


The Spring Assisted Dobbs Brace features the 'Quick Clip' system for use with AFO Sandals.



The Spring Assisted Dobbs Brace lets children move their feet independently whilst maintaining abduction.

The spring assist provides a dynamic stretch on the calf allowing patients to build calf muscle strength while moving and playing in the brace.



A spring reset brings the child's feet back to neutral in a resting position.

The spring maintains an active dorsiflexion stretch while still allowing the child to play and crawl in the brace.

The Spring Assisted Dobbs Brace comes in small and regular sizes. The small bar adjusts from 15 cm to 23 cm and should be used on children under 1 year of age. The regular bar adjusts from 23 cm to 35 cm and should be used on children over 1 year of age.

The Spring Assisted Dobbs Brace should be set so that the width of the bar is equal to the shoulder width of the child. The regular size bar is recommended if the shoulder width of the patient is greater than 20 cm and over 1 year of age.



The angle of external rotation is set by simply loosening the screw as per the image.

Angle Setting Pointer

C-Pro Direct is pleased to sell The Clubfoot Store items, perfect for parents of Clubfoot children wanting to raise awareness!



(Click the images to see the product on our website and prices)

#clubfootstrong



"I would like to thank you and your team for all your effort and kindness in dealing with us and helping our baby and all babies around the world."

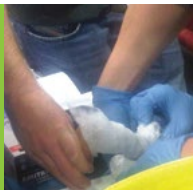
"Great service will shop here again. Thank you."



The Ponseti Method is critically dependent on effective training and skills transfer. Inexperienced clinicians need to learn the theory, the functional anatomy and to practise. Our teaching aids are also a helpful way of explaining clubfoot and the Ponseti Method to parents.

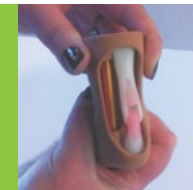


Treatment of Clubfoot Videos



"Thank you for all you do for the clubfoot community!"

"Thank you for being a company that truly cares about the well being of your customers (children)."



The ADM is an ankle foot orthosis that assists anatomically correct dorsiflexion, abduction and eversion foot motions.

The ADM moves the foot naturally in three planes throughout the full range of motion. This enables new bracing strategies to be applied for a range of conditions. The non-ambulatory ADM may be used as a night brace, for example, as an alternative to “boots and bar” type braces for prevention of clubfoot relapse.

The ADM may also be attached to daytime footwear as an alternative to traditional Ankle Foot Orthosis (AFOs). Ambulatory ADMs can improve the gait, balance and mobility of children with issues such as low muscle tone, foot drop and dynamic supination.

In both ambulatory and non-ambulatory bracing scenarios the ADM has significant advantages over other braces, which translate into benefits of improved compliance, patient comfort, mobility and independence.



The ADM Abducts, Everts and Dorsiflexes

A foot in an ADM is free to move normally through its full range of motion, but as the user relaxes the ADM abducts, everts and dorsiflexes the foot about the sub-talar and tibio-talar joints.

As a night brace the ADM delivers a long duration stretch to the medial soft tissues. For clubfoot patients, the effect is similar to using the traditional Denis Browne “boots-and-bar” splint, but there is no bar. When used with daytime footwear the ADM modifies the gait, improving heel strike and stride length whilst reducing excessive internal rotation.

Introducing the Abduction Dorsiflexion Mechanism

c-prodirect



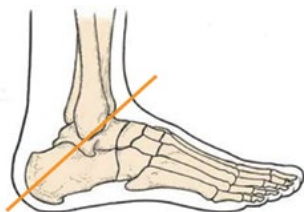
“We are really satisfied with this splint. Our daughter is very active and a traditional splint wouldn't work. We are glad of this system. We already were satisfied with your fast delivery and now with your great after-sales service. Count on us to make great publicity in France!”

“I would just like to take a moment to say how great and amazing these guys are. They have created a fantastic product which has saved our sanity and has so far produced outstanding results. Our little boy would not be where he is today without them. Their customer service and attention is also just first class and phenomenal. We honestly cannot fault them in any way!”



The ADM design emanates from functional foot anatomy and kinematics. The motions of the two jointed mechanisms combine to create an anatomically accurate triplane foot motion. This enables simultaneous dorsiflexion, eversion and abduction motions.

The mean dominant axis of the sub-talar joint is generally accepted as being 42 degrees from the transverse plane and 16 degrees from the sagittal plane.



The ADM has a jointed mechanism aligned to the dominant sub-talar joint axis. The range of motion is limited to 5 degrees of varus to 30 degrees of valgus.



Key Functions:

- Abducts and everts the foot about the sub-talar joint
- Dorsiflexes the foot about the tibio-talar joint
- Stretches tendons and ligaments, but allows movement to maintain flexibility and condition
- Is well tolerated
- Supports fully functional normal foot motions
- May be attached to night sandals or day footwear



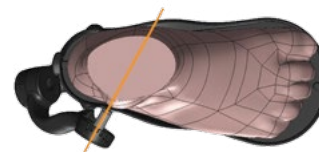
0 degrees



15 degrees



30 degrees



A second ADM joint is aligned to the mean dominant axis of the tibio-talar joint. This axis is generally accepted as running 20 to 30 degrees from the frontal plane and 8 degrees to the transverse plane when the sub-talar joint is in a neutral position.



0 degrees



15 degrees



30 degrees

The ADM tibio-talar joint mechanism permits a range of motion from 45 degrees of plantarflexion (not shown in the figure above) through to 30 degrees of dorsiflexion. The result of the combined motions of the two ADM joints is a functional triplane foot movement. The ADM supports anatomically correct abduction, eversion and dorsiflexion plus adduction, inversion and plantarflexion foot motions.

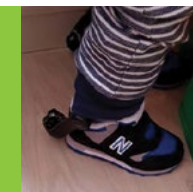


Each ADM joint mechanism contains a torsion spring. The springs apply precisely defined torsion forces to rotate the foot about the sub-talar and tibio-talar joints. A comprehensive range of spring strengths is available to suit every foot size and application.



"C-Pro has gone above and beyond! I initially contacted them with just general questions about moving to ADM. They answered all of my questions and made ordering and transitioning a breeze!"

"Our baby now sleeps, which means we all sleep!"



When attached to normal day footwear the ADM can be used to improve the gait of children affected by a range of conditions (see page 18).

The ADM offers many significant advantages over traditional AFOs. Because other AFOs provide little or limited single axis motion they cannot enable an anatomically correct gait. Children using ambulatory ADMs can walk normally and typically experience greater comfort, balance and independence. The ADM is simple to use, easy to put on and usually delivers immediate improvements.



X-Small, Small, Small/Medium, Medium, Medium/Large and Large ADMs can be permanently attached to many day shoes, including trainers, school shoes and custom orthopaedic shoes. For these braces the leg straps are made from soft leather, which is available in either black or white.



Centre of Pressure (COP): COP analysis illustrates how the ADM modifies the COP of a patient with a supinated gait.



1. Initial swing phase:
The patient shows evidence of walking in varus without the ADM.



2. Mid swing phase:
The ADM is correcting heel varus and heel strike is now in slight valgus.



3. Terminal swing phase:
The ADM enables a more active heel strike, there is less internal rotation and greater dorsiflexion.



"We received our daytime ADM, we stopped sitting and bored with the bar! The child is happy, he jumped all evening like a bunny. Well, what kind of result will we find out later. We are all happy!"

"Thank you so much to your wonderful team... having his night and day ADM has improved his foot massively and made us all so much happier as a family as he sleeps better."



When attached to normal day footwear the ADM can be used to improve the gait of children affected by a range of conditions. These can include:

- Neurological conditions resulting in poor gait, loss of range, drop foot, hemiplegia / diplegia: Daytime ADMs are being used successfully for patients with a range of neurological conditions including mild Cerebral Palsy. These patients are able to walk reasonably well, but tend to have poor stride length, drop-foot and suffer from tripping, poor balance and mobility.
- Dynamic supination in clubfoot patient: Some clubfoot patients supinate when walking. Typically there is skin-hardening on the lateral border of the mid-foot, noticeable in-toeing/ inward hip rotation and a reduced stride length. Daytime ADMs can help reinforce better ambulatory habits, reduce risk of injury and improve mobility and comfort. By reinforcing an anatomically improved gait during weight bearing activities the Daytime ADM may contribute to developing improved foot function.
- Relapsing idiopathic clubfoot – Candidate for Anterior Tendon Transfer: The standard of care for this category of case, where the boots and bar are not working or not being used, is to re-cast the foot to regain correction and undertake an anterior tendon transfer. For patients in this group the ADM offers a possibility of effective non-surgical management, which may be preferable for some families.



"Yesterday I got my new ADMs. I'm so happy, because these are the most comfortable shoes I've ever had... Thank you with all my heart for the incredible gesture, you are awesome."

"Only had great experiences and fantastic support from you. Thank you for all the things you do!"



C-Pro Direct is immensely grateful to all the clinics throughout the world that have invested time and effort into evaluating the ADM. We also would like to acknowledge those parents and clinicians that provide so much unsolicited feedback; so much of it positive and heart-warming. After 1 year of pre-market testing and five years of initial use, clinical data is emerging to support our biomechanical analysis. With over 13,000 devices shipped there is a substantial growing body of evidence suggesting the ADM is an effective alternative to the boots-and-bar Foot Abduction Brace as used in the treatment of clubfoot.



Study

We were very pleased to see the study "A new unilateral abduction orthosis for Ponseti-treated clubfoot: A cohort study to assess compliance" published in Prosthetics and Orthotics International 1–6 in December 2018.

The full study can be obtained at www.ncbi.nlm.nih.gov/m/pubmed/30557091/

Summary

This cohort study included 10 unilateral clubfoot patients between the ages of 1 and 4 years who, following informed consent, switched treatment to the ADM from traditional boots and bar bracing. The patients used the 2014 version of the ADM, which is now much updated.

The initial trial period was three months, but with a provision that use of the ADM could continue if there were no adverse outcomes or recurrence of the deformity.

Detailed follow-up assessments were made at 1, 4, 8 and 12 weeks followed by regular assessment thereafter.

The outcome measures for foot anatomy were dorsiflexion at the ankle joint and forefoot

abduction. The Pirani score was recorded at each assessment and the parents were asked to keep a diary.

All children completed the trial and all patients preferred to remain with the ADM at 12 weeks. Following ADM use foot abduction improved by a mean of 24.9° and dorsiflexion improved by a mean of 5.4°.

At 16 months follow-up these improvements in range of motion were maintained.

The study has shown that for this small group the ADM is a feasible alternative to traditional boots and bar bracing. A larger cohort study is being worked on.

C-Pro Direct Comments

To date many of the major beneficiaries of the ADM have been those patients and parents of children with clubfoot who have struggled with the sandals and bar. There is a very significant minority of clubfoot patients in this category. The feedback we have received demonstrates for them, their parents and family, the ADM has quite literally transformed their quality of life.

Whilst many ADM users have been those with complications, the recently published study focused on sandals and bar users without complications. For a small cohort the study demonstrated not only that the ADM continued to maintain correction, but at 12 weeks significant improvements in abduction were observed. Patient follow up at 16 months demonstrated there were lasting improvements.

We take all feedback positively, be it good or bad. C-Pro Direct has made many improvements and refinements to the ADM during the last five years and we will continue to do so. We will continue to listen to all feedback, support trials where possible and make significant investments into research and development.

The ADM is protected by many international patents throughout Europe, Asia, Australia and North America.



The simple and effective way to encourage children to stretch their Achilles tendons and calf muscles.

Safe, child friendly stretching with 10, 15 and 20 degree slope angles. Suitable for use by children up to 10 years of age affected by:

- Clubfeet
- Mild Cerebral Palsy
- Trauma
- Idiopathic Toe Walking
- Other neuropathies and myopathies

dorsi
RAMP



Dorsi Ramp is a high quality, stable, child friendly ramp.



Black Robin Designs

Build daily stretching of the Achilles tendon and calf muscles into your child's daily activities.

Using Dorsi Ramp as a step means that your child does not associate it with physiotherapy.



Use the orange insert to reduce the 20 degree slope to 15 degrees.



Turn Dorsi Ramp upside down to switch between 10 and 20 degree sloping surfaces.



The contoured slope surface provides a constant slope angle for all foot positions.

UK Patent No GB2491273. Other patents applied for.



"I wanted to thank you so much for the extremely speedy delivery of my dorsi ramp. I have also referred you to our physiotherapist who would like to order one in Crete also."

"Thank you so much! What a sweet blessing and I am so thankful for the kindness and generosity of you, Stella, Philip and the rest of the C-Pro company!"



For maximum comfort and protection of sensitive skin, the sandals should be worn with smooth, soft, close fitting socks. Our Black Robin Designs socks have been designed specifically for use with sandals.

Inappropriate socks, especially for very young babies with sensitive skin, is a common cause of problems for children wearing foot braces for prolonged periods of time.

Why Bamboo?

- Super soft stretchy fabric fitting close to the skin
- Anti-static and kind to allergy prone skin
- Antibacterial properties of bamboo reduce foot smells
- UV protection of bamboo fabric blocks out most UV rays, perfect for children's sensitive skin
- Moisture wicking bamboo rich material keeps feet dry and cool
- Bamboo is warm yet breathable, making it ideal in all temperatures

Environmental benefits of Bamboo socks



Fully biodegradable



Less water needed for Bamboo than other crops



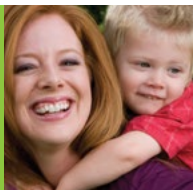
Fast growing and naturally occurring



Yields same as cotton using 10% of the land area

Other features of the Black Robin Designs Bamboo Socks:

- Extra height, so ideal for wearing with various types of AFO
- Silicon dots on sole to hold sock in position
- Minimal internal seam



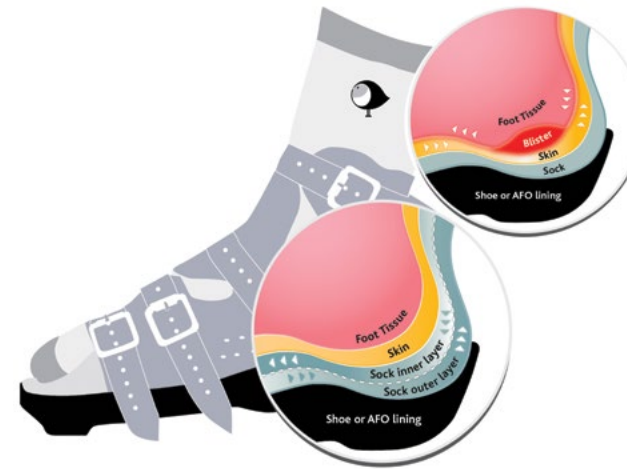
"Whole transaction easy - online search and purchase straight forward followed up by a quick delivery! Socks are as good as everyone said and are lasting very well. Thanks!"

The Black Robin socks now come in two styles:

- Double Layered
- Single Layered

Double Layer

The Double Layered bamboo sock is inspired by the type of socks used by long distance runners. The outer and inner sock layers move freely over one another, minimising rubbing forces between the skin and soft tissues.



A well made double layered sock massively reduces skin friction, which is the major cause of blisters and sores.

As sores can be common with children in foot braces, wearing socks is vital for continuing their treatment.



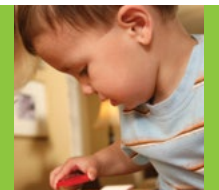
Black Robin Designs



Single Layer

After many requests, we are now pleased to offer a single layered sock. The single layer comes with all the benefits of bamboo in a thinner sock style.

Children who have less sensitivity and do not suffer from blisters and sores may benefit from using the light single layer sock. In warmer climates, children may find a thinner sock easier to tolerate.



"No blisters thanks to the socks! They're great!"



From the kind donations of many, we have been able to stock both clinics in Pemba and Zanzibar for the Infant Clubfoot Appeal this year! This includes second hand sandals and bars as well as children's mixed orthotics.



"I want to share with you that your gesture shows great generosity and sensitivity. We are perplexed (positively speaking) with your attitude of offering our little prince his socks and a pair of sandals. This gesture shows the affection and value you attribute to your clients. Congratulations!"

Other Charities We Support

We would like to say a huge thank you to MD Orthopaedics, all the hospitals and parents for contributing many thousands of used sandals and bars over the years. We work tirelessly to ensure these are safely delivered to projects in the developing world where they will be much valued.



Throughout the year, we have supported many different Facebook pages run by volunteers, exchanging sandals and bars between families that cannot afford to buy them. This Moroccan charity runs monthly Ponseti clinics loaning used braces.

Paraplegic Centre Peshewar

We were happy to help the Peshewar centre in Pakistan with used sandals and bars. The Clubfoot team at the centre said: "Today I received your charity shipment. I have no words to express my feelings as I was never expecting my single email could be so helpful for these poor clubfoot patients and parents. My hospital Chief Executive Officer as well as our whole clubfoot team was very excited on receiving this gift from your side."



Loan of Training Models for Ponseti Courses

This year, C-Pro Direct were very happy to sponsor and provide a loan of training models for the second Barcelona University Clubfoot Course, as well as other training days throughout the year. If you are running a training course and would like donated models, please email charity@c-prodirect.co.uk.

"Stella and co, forever grateful for your hard work and kindness."



The Clubfoot Database is a free of charge secure online database that records and reports on the progress of clubfoot patients throughout their treatment. System capabilities include capture of images, Pirani score data, bracing details and surgery. Supported on PCs, tablets devices and smartphones. For more details go to www.c-prodirect.com.

HOME CLINICIANS NEW PATIENT FIND PATIENT ADD CONSULTATION FAQ REPORTS

Add Consultation

Patient: ADM 287004 DoB: 3/26/2000

Gender: Male
 Consultation Date: 05-Mar-2014
 Supervising Doctor: Ashley Goodman
 Patient Consent Provided: No
 Diagnosis: CTEV
 Bilateral / Unilateral: Bilateral

Pirani Score

	Left			Right		
	0.0	0.5	1.0	0.0	0.5	1.0
Hind Foot Contracture Score (HCFS)						
Posterior Crease						
Empty Heel						
Rigid Equinus						
HCFS Total	3.0			2.0		
Mid Foot Contracture Score (MCFS)						
Medial Crease						
Curvature of lateral border						
Position of head of talus						
MCFS Total	3.0			2.0		

Bracing

Left
 Foot length (mm): 145
 Sub-talar abduction (deg): 25
 Tibio-talar abduction (deg): 10
 Type of AFO: Mitchell Ponseti AFO

Right
 Foot length (mm): 155
 Sub-talar abduction (deg): 30
 Tibio-talar abduction (deg): 10
 Type of AFO:

Surgical History

Left
 Percutaneous Tenotomy: 02-Feb-2010
 Anterior Tendon Transfer:
 Posterior Release:
 Achilles Tendon Lengthening:
 Other Surgery:

Right
 Percutaneous Tenotomy: 02-Feb-2010
 Anterior Tendon Transfer:
 Posterior Release:
 Achilles Tendon Lengthening:
 Other Surgery:

Images



Department of Orthopaedics and Rehabilitation

University of Iowa Health Care

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September 29, 2004

To Whom It May Concern

For decades I have been correcting clubfoot deformities with manipulation, casting, and usually a percutaneous tendo Achilles tenotomy. However, the clubfoot deformity has a high incidence of relapse unless a brace is worn at night and naptime until the child is three to four years old. The biggest problem we have experienced in treating clubfoot involves the bracing. The shoes which have been commercially available, made by the Markell Company, are stiff and not well contoured to the heel. Many babies do not tolerate the shoes and problems with rubbing and sores are constant. Because the babies are so uncomfortable, there is great difficulty with brace compliance and hence there are relapses.

Mr. John Mitchell has developed a sandal-type footwear which consists of a well molded plastic footplate and three soft leather straps. The foot is held securely in the footplate and there is no slippage. The babies do not require a period of adjustment but accept the brace readily. We have received numerous e-mails from parents around the world praising Mr. Mitchell's product. Many families have been fighting the battle of the shoes and are so relieved to finally have something that is easy to apply, is comfortable for the child, and provides the desired results.

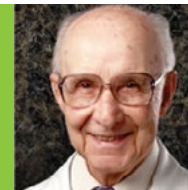
Sincerely,

I. V. Ponseti

I.V. Ponseti, M. D.

IVP/jr

"Thank you for all your hard hard work to help us with our challenges. You are miracle workers and have at least changed my world for the better."



"Thank you for such a quick response. Best customer service ever."

Contact Us...



Proud to support
the Ponseti Method
in the developing
world

Images of Madagascan Ponseti clinic by Jose Alfonso Torres.

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