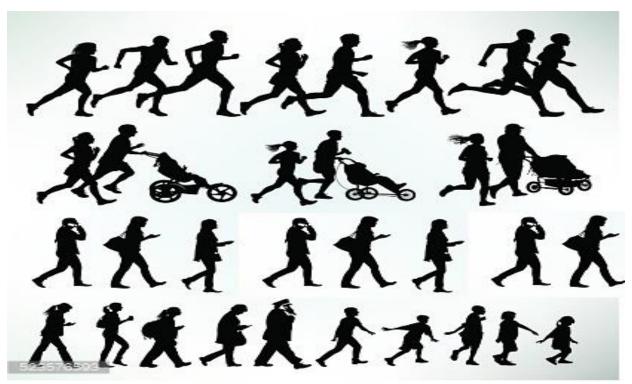




The Shoe Update

Summer 2015 "New tools in the toolbox"



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Commentary

The theme of the last Shoe Update was "new tools in the tool box". That theme certainly continues through the summer of 2015 with many manufacturers following in the big footsteps of the Hoka maximalist movement.

In general, the stiff rocker shoe has been used to help successfully manage numerous cases of metatarsalgia, post-surgical ambulation as well as various forefoot pathologies. But, with more people adopting the Hoka shoe for this purpose, we have noticed a number of other positive results from this highly cushioned, stiff-rockered runner. Planter fasciitis, Achilles tendinitis, gastroc soleus pain...all seem to get a certain degree of relief from the Hoka. Is it from a decrease in eccentric loading of the calf muscle and the reduced windlass effect on the plantar fascia? Hard to say, but it is an observation worth more intense scrutiny and study.

Five fingers and barefoot technologies continue to hold their important niche market position as a foot strengthening and dynamic balance device. It's also interesting to see how the orthopedic feature of stretch elastic upper componentry around problematic areas like bunions and hammertoes are finding their way into the mainstream athletic shoe world. I guess this should not seem surprising given the aging demographic and their desire to combine a younger look with ultimate comfort.

The world is changing and footwear follows that pattern with new and interesting updates. Some functional, some fashionable, and some completely useless! It's our job to know the difference. The Shoe Update is our way of keeping you up-to-date with the latest in functional footwear from both an athletic and orthopedic perspective. I hope you find it helpful.

The Shoe Update is available on our websites along with various articles on cutting edge topics. Thank you for your support and please feel free to call anytime with questions or concerns. We are happy to come by anytime to your workplace, bring some shoes along and do an informative footwear in-service. If you're in Vancouver, contact LadySport. If you're located in the tri-cities, please contact FitFirst.

All the best, Cheers Phil Moore BA-BPHE

P.s. remember, we now do ladies, kids... and men (FitFirst only)!



FitFirst Footwear

itFirst Footwear may be a relatively new operation

– but it comes with three decades of experience in specialty sports retailing.

Co-owned by Brett Davidson, Phil Moore and Moore's son Evan, FitFirst grew out of the success of the well-known LadySport location on West 4th Avenue in Vancouver, which has built a phenomenal reputation over the last 31 years by offering cutting edge gear and a warm personal approach to customer service.

"Having the opportunity to come to the Fortius Sport & Health facility, and expand on what we built at LadySport has been great," notes Evan Moore. "We cater to men, women, youth, and kids with shoes, clothing and accessories in all sizes. Some customers find out about us from our run clinics, some through word-of-mouth, often they come to us after a recommendation from their podiatrist, physiotherapist, doctor or personal trainer."

Moore says they pride themselves on personal service and specialized customer support. With an owner operated dedication to customer service and through years of

experience, they separate themselves from the rest.

"We have every kind of customer – and being able to get them into exactly what they need is very rewarding," he said. "That might be someone training for their first 10K, a lifelong walker, or someone who plays one specific sport and needs the right gear to give them that competitive advantage. As well we deal with seniors suffering with arthritis who want to stay active, or even individuals rehabbing from an injury. Sometimes it's just a little kid who wants the coolest, brightest colored runner for school.



"It's very rewarding to work with customers of all ages and abilities. That's our focus: making sure that each person is confident with the gear they purchase so they can stay healthy and active."

They come from all across the spectrum and we try to help each of them with their specific needs."

And it's not enough to simply find the right product for each person – providing education to their customers is a high priority, be it through one-on-one consultation while shopping, or in a specialty evening event like their recent wine and cheese sports bra night. Their professional lecture series for local medical experts has become well known across the Lower Mainland.

The approach has paid off: since opening a little more than a year ago, FitFirst Footwear has seen a boom in customers from here in Burnaby and further afield.

"Being in this city and this location is just wonderful," he said. "As people who live in Burnaby and New Westminster ourselves, it's fantastic to know we're creating something special in our own backyard. Fortius is an amazing facility, and it just keeps growing. And from a location perspective, we're right off the highway. When we have customers getting recommendations from their



PHOTO: Evan Moore, co-owner - Fit First Footwear

physiotherapists or doctors, they can get here easily be it from the Fraser Valley, North Vancouver, or almost anywhere." It's an ideal retail fit for the Fortius Sport & Health facility, which is an athlete development centre with a variety of sport and health related services on site.

In fact, FitFirst Footwear opened its doors there thanks to the encouragement of Dr. Jack Taunton and the leadership team at Fortius.

"We built a reputation at LadySport such that the team at Fortius said 'We want you here' and they approached us about opening a store for men and women," said Moore. "It's great to be in a facility like this in terms of the services they offer. This isn't a place just for the elite athlete, it's for the general public. It's very rewarding to work with customers of all ages and abilities – we know we can make a big difference in their lives. That's our focus: making sure that each person is confident with the gear they purchase so they can stay healthy and active."

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www.fitfirst.ca

A Stitch Here and There

Phil Moore • www.ladysport.ca • phil@ladysport.va

In many ways running shoes have become the "new age orthopaedic shoe". With mesh uppers and features focused on foot biomechanics, some of the most challenging pathologies are managed well with a good jogger! Patients can now choose an extra depth running shoe over the traditional and lackluster taupe orthopaedic option.

But not all shoes, even those with the deepest mesh uppers are always capable of managing hammer toes and bunions 'seamlessly'.

When fitting a patient, we often find a shoe that fits most areas of the foot well except one spot where an overlay is getting in the way. Going to the next width up means losing the fit in the rest of the shoe and doing so also tends to compromise overall support and stability.

What to do?

Well.....there is a great little trick that you can do in the office or in the shoe store to help make that style fit perfectly!

On many mesh uppered running shoes there are vinyl overlays which are there to provide a nominal amount of structure and support.

They can actually detract from the fit, especially in the case of the arthritic or diabetic foot. In many cases toes or joints protrude, requiring a bubble patch or significant stretch modification.

This proves to be frustrating because 95% of the fit is perfect. However, with a \$3 stich remover and a sharp pair of scissors the toe box can be customized in 5 minutes!

Here's how:

Many of these overlays are stitched down and can be easily removed.

Simply unstitch the unwanted vinyl piece, while making sure to not clip the mesh toe box.



Most overlays are not glued down, so when removed, there is little or no mark left on the shoe.

Make sure that the nylon is the same on both sides of the overlay, otherwise there may be a flat joint seam underneath, making the modification more noticeable (it's not the end of the world, it's just not as pretty).

In the case of the New Balance 840, a popular multiple width extra deep runner, taking the overlays off has been The Answer for some of the most challenging arthritic and diabetic feet.

As seen in the picture below, the overlay was removed to accommodate a Tailor's bunion.

In the case of a 3rd toe corn because of a hammer toe, the small "sway bar" on the lateral toe box could be removed as well.

For some extreme arthritic cases, all of the overlays can be removed to make a complete and seamless nylon toe box! Some shoe designers are becoming more aware of these various foot challenges and are making efforts to keep pace with the demands of our aging population.

Take for instance the all new New Balance 3040 pictured below. It is a stretchable and seamless shoe designed and marketed specifically for the Diabetic foot. Note the accommodative toe box.

Hopefully more shoe makers will follow this lead with unobtrusive overlays and



intrinsically stitched support bars and seamless toe boxes.

Until thenNo need to send the patient to the local cobbler for a shoe modification. Just consider unstitching a few overlays and make that toe box Just Right!!!



Cheers
Phil Moore BA-BPHE Queens
Owner LadySport and FitFirst footwear,
Vancouver BC

DEAD?

By Phil Moore

One of the most frequently asked questions from fitness instructors and participants is...how long should my shoes last? Obviously this will vary from one person to the next, but there are some general rules of thumb that do apply.

The midsole or material between the upper and the outersole is generally composed of precompressed foam called Compression Molded E.V.A. It is a very lightweight material that has excellent resilience (or the ability to absorb shock and return it to its original shape before the impact). Constant pounding compromises the resilience of the foam and its ability to attenuate shock.

The midsole also acts as a housing for such high tech materials as AIR, GEL, ABSORB, etc. Yet, often with so little of these celebrated impact absorbers in the shoe, they have a negligible effect on the life of the midsole.

Therefore, the long term cushioning responsibility falls on the foam. This compression set E.V.A. has a well documented lifeline of about 500 running/walking miles. After this amount of pounding, the foam "tires" and the resilience is significantly compromised to the point where the shoes fell like it "blew a tire". Often, this "flat" is not obvious until you try on a new pair of shoes and realize immediately why your knees or arches have been acting up.

But "running miles" are a poor measuring cup for aerobic activity. So to try and create a gauge that was meaningful to fitness enthusiasts, I tracked a group of instructors who did a consistent number of high impact classes per week and who also felt their shoes were "finished" when various body parts began to cry out for help (for example, shin splints, plantar fascia, Achilles, knees).

With this group of thirty or so instructors, we observed a consistent pattern of wear. Here are a few examples:

- A person doing 4 classes per week felt their shoes were "dead" within 6 months.
- A person doing 8 classes per week felt their shoes were "dead" in 3 months.

 A person doing 2 classes per week felt their shoes were "dead" in 12 months.

So based on 500 miles worth of wear, the reverse math meant that each class is equivalent to about 5 running miles worth of wear and tear.

Runners / Walkers can simply add up their mileage...ex. I run for 40 min. 3 times / week. That means 3 to 4 miles @ 3 times x 4 weeks is approximately 45 miles / month...which allows you about 12 months to do 500 miles...give or take a few steps!!!!!

THOSE DOING AEROBICS NOTE THIS CHART

# classes/	X 5 miles	X 4 weeks	Approx # of
week	(= miles/	(= miles/	months to
	week)	month)	get to 500
			running
			miles
2	10	40	12 months
3	15	60	8 months
4	20	80	6 months
5	25	100	5 months
6	30	120	4 months
7	35	140	31/2 months
8	40	160	3 months

When comparing aerobic wear and tear with running miles, we need to keep in mind two important points:

- With fitness and aerobic exercise, there is a great deal of lateral movement, which stretches the upper more than the linear activity of running. The upper therefore may get sloppy and lose support, further limiting the life of the shoe.
- The impact in aerobics is concentrated on the forefoot area of the shoe. Running, on the other hand, involves a heel to toe gait pattern, which spreads the impact more evenly across the midsole.

Do not change your shoes based totally on this chart! Use the chart as a gauge, listen to your body and compare it with a new pair of the same shoes before you decide.

FitFirst Footwear

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LadySport

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The Shoe Fitter

Every Podiatrist needs a good shoe fitter.

Every orthotic needs a good shoe.

Some even go as far as to say that an orthotic is only as good as shoe you put it in!

Certainly the choice of footwear is an integral part of the foot management system. This is particularly true with running shoes where designs and models change constantly. The shoe choice and the corresponding fit can have a huge influence on the overall outcome for both the doctor and the patient.



In an effort to teach retailers how to better serve the Podiatric and general medical community's requests for footwear, New Balance gathered 10 individuals from across the country, representing various medical disciplines for a brainstorming session. Hundreds of pages of notes were disseminated, then medically illustrated in an effort to instruct shoe fitters on everything from.... basic foot pathologies, fit protocols, store readiness, staff scope of practice and general problem solving with the end goal of delivering a fit experience that helps both the patient/customer and the shoe referrer. The result, a store guide called ProCare.

Store staffs that were given access to this manual were then required to take a test in order to become certified as a ProCare Fit Specialist. The programme came to market in 2004 and was aimed mainly at New Balance stores, select family shoe stores and a few run specialty shops..

Having been on that Board 10 years ago when it was introduced, I felt that not only did the manual need updating, but many more Canadian specialty running stores could benefit from this kind of training as well. This became particularly urgent with the introduction of the minimalist footwear and various scientific challenges to the traditional footwear categories of stability, neutral and motion control. see (Dr. Jack Taunton's Nike Global research studies). With a blessing from New Balance we assembled a new advisory team and updated the manual...aptly renaming ...Dynamix.

This manual is built for the sole purpose of training Independently owned Running Retailers across Canada otherwise known as the IRRC .These 45 specialty stores have been given access to Dynamix in an effort to help shoe fitters better understand the body , medical terminology , pathologies and ultimately footwear's part in an often complex foot management conversation. The programme trains staff to understand enough to be helpful, but warns against the evils of trying to do more than is being asked for. The ability to read and follow your prescription and deliver a suitably comfortable choice to the patient is key to being a successful and integral part of the overall healthcare team!

The manual and ultimately staff certification gives a store the ability to converse with you in a meaningful way, and helps give you the confidence needed to send customers their way.

Seek them out and ask about the Dynamix manual. Review it with them and train **your** shoe fitter to understand what **you** need, what **you** want and ultimately what's best for **your patient**!

For a member store in your area visit IRRC.ca

Cheers
Phil Moore
LadySport and FitFirst Footwear , Vancouver
fitfirst.ca/ladysport.ca

new age orthopaedic shoes. the stretchable upper option!

So many medical referrals to the shoe shop come requesting a roomy toe-box and seamless upper to accommodate any variety of forefoot pathologies. Traditional extra-depth leather orthopedic shoes with non-shearing Plastazote linings, like Apex Ambulator, can be useful for sure. But they carry with them a number of annoying liabilities including the added weight and bulk. This inevitably leads the patient to say..... 'I won't wear them, they're ugly!'.

In reaction, some traditional orthopaedic shoe lines are expanding to meet the needs and wants of a younger-minded aging population. Heavy leather extra depth toe boxes sits alongside a variety of attractive, accommodative stretch material shoe options.

Propet and Orthofootwear use Lycra and nylon in an "accordion-like expandable pattern to help create lightweight super stretch toe boxes able to comfortably accommodate some of the most challenging arthritic feet.



Hammertoes, bunions and mallet toes can sit comfortably against the toebox material with limited risk of abrasion. This is particularly important with the diabetic foot! Xsensible models are pricey but are also more fashionable with craftsman like quality. Xsensible created a complex multilevel material made from Lycra and spandex that is laminated to a razor-thin outer layer of leather. The result is the ultimate in "stretch leather" seamless footwear. (notice below the illustrated stretch in the full elastic toe box for a hammer toe).



Pedors markets some more affordable orthopaedic options with thick stretch fabrics. Unfortunately they can prove to be less than attractive. That being said, their wider outsole platforms, deeper uppers, accommodative Velcro closures and extensive width options make them a prime choice for that challenging post-operative and/ or ademitous foot.

Portofino dabbles in the stretch category but the fabric has minimal elasticity. Their gussets are well placed and the shoes are very fashionable and attractive to numerous age groups.



Running shoe designers are also now using accommodative stretch fabrics in some of their high-end road shoes. Asics, for instance, uses what they call their

"biomorphic" gussets to better accommodate a nasty hallux valgus or bothersome Taylor's bunion. (Stability model Gel Kayano as well as the neutral Gel Nimbus).

But with all the forefoot accommodation that comes with the new stretch toe box models, I find it curious that the designers usually miss incorporating a stiff rockered sole in models clearly aimed at patients with forefoot pathologies.

Shoe prescriptions/recommendations for the arthritic, diabetic and / or traumatic foot often read:

- "Please fit patient with shoe that has
- 1) accommodative roomy toe box
- 2) seamless upper
- 3) stiff rockered sole"

And unfortunately 'two outta three' IS bad.

A stiff rockered sole helps to offload the forefoot and is a key element in managing this type of ambulatory foot.

Lightweight accommodative stretch options with inspiring cosmetics are indeed welcomed, but new age designers need to incorporate some old school stiffness and support with the elastic so that those forefoot issues are not only accommodated but are protected against flex-related stress while walking or running. For a review of some stretch upper options, visit Ladysport.ca and look for a listing of key stretch models or browse The Shoe Update for more information.

Phil Moore BA-BPHE Queens University Co-Owner Ladysport and FitFirst Vancouver

THE SHOE UPDATE WINTER 2015

Phil Moore (BA-BPHE, Queen's University '81)

Key Models

Available		Rey Models			
at FitFirst	Widths	Model	Men	Women	Price Range
Running					
Mot	ion Control (v	wide base, major posting)			
✓	✓	Asics Foundation 8	✓	✓	\$ 150
		Asics Fortify		\checkmark	\$ 180
✓	✓	Saucony Grid Stabil CS 3	✓	✓	\$ 160
Stab	ility (hard fo	am medially)			
✓		Adidas Supernova Sequence Boost	✓	✓	\$ 160
\checkmark		Adidas Tempo	\checkmark	\checkmark	\$ 150
\checkmark	✓	Asics GT 2000 3	\checkmark	\checkmark	\$ 160
✓	✓	Asics Kayano 21	\checkmark	\checkmark	\$ 200
✓	\checkmark	Brooks Adrenaline 15	\checkmark	\checkmark	\$ 160
✓		Mizuno Inspire 11	\checkmark	\checkmark	\$ 155
\checkmark	\checkmark	New Balance 860v5	\checkmark	\checkmark	\$ 160
✓		Nike Structure Triax 18	\checkmark	\checkmark	\$ 155
\checkmark		Nike Lunarglide	\checkmark	✓	\$ 140
\checkmark		Saucony Guide 8	\checkmark	✓	\$ 150
	✓	Saucony Omni 13	\checkmark	✓	\$ 140
Neur	tral Supporti	ve (firm neutral midsole)			
√	√	Asics Fortitude 3	✓	✓	\$ 150
✓	✓	Brooks Dyad 8	\checkmark	✓	\$ 150
	✓	New Balance 1540V2		✓	\$ 180
\checkmark	✓	New Balance w840v3 *Coming Soon*	✓	\checkmark	\$ 180
✓	✓	Saucony Progrid Echelon 4		✓	\$ 150
Cush	nion (soft neu	ıtral midsole)			
✓	✓	Asics Cumulus 16	✓	✓	\$ 150
✓	✓	Asics Nimbus 17	\checkmark	✓	\$ 190
✓	✓	Brooks Glycerin 12	\checkmark	✓	\$ 170
✓		Mizuno Wave Creation		✓	\$ 190
✓		Mizuno Wave Rider 18	✓	\checkmark	\$ 160
		Mizuno Wave Prophecy		✓	\$ 230
✓	✓	New Balance w880v4	\checkmark	✓	\$ 150
	✓	New Balance 1080v5		✓	\$ 170
	✓	New Balance 3040		\checkmark	\$ 200
✓		Nike Pegasus 31	\checkmark	✓	\$ 130
✓		Nike Vomero 10	\checkmark	✓	\$ 180
✓		On Cloudsurfer	\checkmark	✓	\$ 180
✓		On Cloudster	\checkmark	✓	\$ 150
✓		Saucony Triumph Iso	\checkmark	✓	\$ 170
✓	\checkmark	Saucony Ride 7	\checkmark	✓	\$ 150
Trail	Running	•			

LadySport 3545 West 4th Avenue

3545 West 4th Avenue Vancouver, BC 604-733-1173 www.ladysport.ca **FitFirst Footwear**

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\checkmark			,					
		Asics Fuji-Trabuco + Goretex	√	√	\$	160		
✓		Asics Trabuco Neutral + Goretex	✓	✓	\$	160		
		Brooks Cascadia 10	✓	✓	\$	160		
✓	\checkmark	New Balance 910gtx		✓	\$	160		
✓		Saucony Xodus 5 + Goretex	\checkmark	✓	\$	150	\$	165
✓		Saucony Peregrine 5	✓	✓	\$	130		
Minimo	alism							
✓		Nike Free 5.0	✓	✓	\$	135		
✓		Nike Free 4.0	\checkmark	✓	\$	160		
✓		New Balance Zante	\checkmark	✓	\$	130		
✓		On Cloud	✓	✓	\$	140		
Maxim	alism and	l Stiff Rocker						
✓		Altra Olympus	✓	✓	\$	170		
✓		Hoka Bondi 4	\checkmark	✓	\$	170		
✓		Hoka Mafate	\checkmark	\checkmark	\$	180		
✓		Hoka Stinson	✓	✓	\$	170		
		Asics 33-m		✓	\$	160		
✓		On Cloudsurfer	✓	✓	\$	180		
Available								
at FitFirst	Widths	Model	Men	Women	Prio	e Rang	e	
Walking								
	\checkmark	New Balance 813	\checkmark	✓	\$	140		
✓	✓ ✓	New Balance 813 New Balance 928	√ ✓	✓	\$ \$	140 160		
✓ ✓								
√ √ √	✓	New Balance 928		✓	\$	160		
✓	√ √ √	New Balance 928 Saucony Grid Integrity 2 Saucony Echelon Walker	✓ ✓	✓ ✓	\$ \$	160 130		
√ √	√ √ Court and	New Balance 928 Saucony Grid Integrity 2 Saucony Echelon Walker	✓ ✓	✓ ✓	\$ \$	160 130		
✓ ✓ Cross-training,	√ √ Court and	New Balance 928 Saucony Grid Integrity 2 Saucony Echelon Walker	✓ ✓	✓ ✓	\$ \$ \$	160 130		
✓ ✓ Cross-training, Cross-tr	√ √ Court and	New Balance 928 Saucony Grid Integrity 2 Saucony Echelon Walker d Fitness shoes	√ √ √	√ √ √	\$ \$ \$	160 130 150		
✓ ✓ Cross-training, Cross-tr	√ √ Court and	New Balance 928 Saucony Grid Integrity 2 Saucony Echelon Walker d Fitness shoes Asics 180TR Asics Craze TR-2	√ √ √	√ √ √	\$ \$ \$ \$	160 130 150		
Cross-training, Cross-tr	√ √ Court and	New Balance 928 Saucony Grid Integrity 2 Saucony Echelon Walker d Fitness shoes Asics 180TR	√ √ √	√ √ √	\$ \$ \$ \$ \$	160 130 150 110 120		
Cross-training, Cross-tr	✓ ✓ ✓ Court and	New Balance 928 Saucony Grid Integrity 2 Saucony Echelon Walker d Fitness shoes Asics 180TR Asics Craze TR-2 Asics Gel Intensity	√ √ √	✓ ✓ ✓ ✓	\$ \$ \$ \$ \$	160 130 150 110 120 140		
Cross-training, Cross-tr	Court and	New Balance 928 Saucony Grid Integrity 2 Saucony Echelon Walker d Fitness shoes Asics 180TR Asics Craze TR-2 Asics Gel Intensity New Balance 1012	√ √ √	✓ ✓ ✓ ✓	\$ \$ \$ \$ \$	160 130 150 110 120 140 120		
Cross-training, Cross-tr	Court and caining	New Balance 928 Saucony Grid Integrity 2 Saucony Echelon Walker d Fitness shoes Asics 180TR Asics Craze TR-2 Asics Gel Intensity New Balance 1012 New Balance 608V3/624	√ √ √	✓ ✓ ✓ ✓ ✓	\$ \$ \$ \$ \$ \$	160 130 150 110 120 140 120 100		
✓ ✓ Cross-training, Cross-tr	Court and caining	New Balance 928 Saucony Grid Integrity 2 Saucony Echelon Walker d Fitness shoes Asics 180TR Asics Craze TR-2 Asics Gel Intensity New Balance 1012 New Balance 608V3/624	√ √ √	✓ ✓ ✓ ✓ ✓	\$ \$ \$ \$ \$ \$	160 130 150 110 120 140 120 100 140		
Cross-training, Cross-tr	Court and raining	New Balance 928 Saucony Grid Integrity 2 Saucony Echelon Walker d Fitness shoes Asics 180TR Asics Craze TR-2 Asics Gel Intensity New Balance 1012 New Balance 608V3/624 New Balance 857	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓	\$ \$ \$ \$ \$ \$	160 130 150 110 120 140 120 100		
Cross-training, Cross-tr	Court and raining	New Balance 928 Saucony Grid Integrity 2 Saucony Echelon Walker d Fitness shoes Asics 180TR Asics Craze TR-2 Asics Gel Intensity New Balance 1012 New Balance 608V3/624 New Balance 857 Asics Resolution 6	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓	\$ \$ \$ \$ \$ \$ \$	160 130 150 110 120 140 120 140 140		
Cross-training, Cross-tr	Court and raining	New Balance 928 Saucony Grid Integrity 2 Saucony Echelon Walker d Fitness shoes Asics 180TR Asics Craze TR-2 Asics Gel Intensity New Balance 1012 New Balance 608V3/624 New Balance 857 Asics Resolution 6 New Balance 786	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓	\$ \$ \$ \$ \$ \$	160 130 150 110 120 140 120 140 140 150 110 140		
✓ ✓ ✓ Cross-training, Cross-training, ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	Court and raining	New Balance 928 Saucony Grid Integrity 2 Saucony Echelon Walker d Fitness shoes Asics 180TR Asics Craze TR-2 Asics Gel Intensity New Balance 1012 New Balance 608V3/624 New Balance 857 Asics Resolution 6 New Balance 786 New Balance 806	✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓ ✓	\$ \$ \$ \$ \$ \$ \$	160 130 150 110 120 140 120 140 150 110		
Cross-training, Cross-tr	Court and raining	New Balance 928 Saucony Grid Integrity 2 Saucony Echelon Walker d Fitness shoes Asics 180TR Asics Craze TR-2 Asics Gel Intensity New Balance 1012 New Balance 608V3/624 New Balance 857 Asics Resolution 6 New Balance 786 New Balance 806 Wilson Rush Pro	✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓ ✓	\$ \$ \$ \$ \$ \$ \$ \$	160 130 150 110 120 140 120 140 150 150		
✓ ✓ ✓ Cross-training, Cross-tr ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	Court and raining	New Balance 928 Saucony Grid Integrity 2 Saucony Echelon Walker d Fitness shoes Asics 180TR Asics Craze TR-2 Asics Gel Intensity New Balance 1012 New Balance 608V3/624 New Balance 857 Asics Resolution 6 New Balance 786 New Balance 806	✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓ ✓	\$ \$ \$ \$ \$ \$ \$	160 130 150 110 120 140 120 140 140 150 110 140		
✓ ✓ ✓ ✓ Cross-training, Cross-training, Trennis ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	Court and raining	New Balance 928 Saucony Grid Integrity 2 Saucony Echelon Walker d Fitness shoes Asics 180TR Asics Craze TR-2 Asics Gel Intensity New Balance 1012 New Balance 608V3/624 New Balance 857 Asics Resolution 6 New Balance 786 New Balance 806 Wilson Rush Pro Columbia Drainmaker	✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓ ✓	\$ \$ \$ \$ \$ \$ \$	160 130 150 110 120 140 120 140 150 140 150		
✓ ✓ ✓ Cross-training, Cross-tr ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	Court and raining	New Balance 928 Saucony Grid Integrity 2 Saucony Echelon Walker d Fitness shoes Asics 180TR Asics Craze TR-2 Asics Gel Intensity New Balance 1012 New Balance 608V3/624 New Balance 857 Asics Resolution 6 New Balance 786 New Balance 806 Wilson Rush Pro	✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓ ✓	\$ \$ \$ \$ \$ \$ \$ \$	160 130 150 110 120 140 120 140 150 150		

LadySport 3545 West 4th Avenue Vancouver, BC 604-733-1173 www.ladysport.ca

FitFirst Footwear

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Widths	Model	Men	Women	Pric	ce Range
Ladies dress, casual and	orthopaedic shoes				
Orthopaedic, Eld	astic				
✓	Propet Bianca		✓	\$	130
✓	Propet Cush n' Foot	✓	✓	\$	80
✓	Portofino Velcro Stretch		✓	\$	180
✓	X Sensible Allure		✓	\$	245
Orthopaedic, Dr	ess				
✓	Aravon Farren		✓	\$	180
✓	Aravon Maya		\checkmark	\$	170
✓	Kumfs Rhapsody		✓	\$	210
	Naot Sea		✓	\$	190
Dress/Casual					
	Naot Art		✓	\$	190
	Naot Adriatic		✓	\$	190
	Naot Nautilus		✓	\$	190
	Portofino Velcro Boot		\checkmark	\$	190
	Portofino Lace Up Shoe		\checkmark	\$	190
	Wolky Victoria		✓	\$	200
Slides					
	Merrell Slides (various)		✓	\$	95
Sandals					
✓	Aravon Katy		✓	\$	150
	Portofino Diagonal Strap		✓	\$	175
	Portofino Open Toe		✓	\$	165
	Wolky Jewel/Ruby		✓	\$	185
Non-Removable	Insoles (good arch support)				
	Spenco/Sole Flip Flop	✓	✓	\$	40 \$80
	Teva Tirra		✓	\$	100

LadySport 3545 West 4th Avenue Vancouver, BC 604-733-1173 www.ladysport.ca

Chart #1:
Motion Control Running Shoes
Major Medial Enhancement for the Excessive Pronator

Brand	Model	Price			Forefoot Flexibility	Rocker	Heel Counter Firmness	•	Torsional Rigidity		Men	Available at LadySport	Availabl e at FitFirst Footwea r	Width Sizing Available	Replaces	Description
Asics	Fortify															Exceptionally supportive medially with more dense foam and trustic medial post. Classic motion control!
		\$180	Extensive	√	Flexible	Max	Very	10 mm	High	√	V	√	√	√		The fit of a contained an included by
Saucony	Progrid Stabil CS3	\$160	Extensive	V	Moderate	Moderate	Very	8 mm	High	√	√	√	√			The fit of a contoured neutral shoe with best in class medial support.

Chart #2
Stability Running Shoes
Guards against some excessive pronation/moderate medial inhancement by way of some dense medial midsole foam

			Dense Medial	Plastic Medial	Forefoot		Heel Counter	Drop/	Torsional				Available at FitFirst	Width Sizing		
Brand	Model Supernova	Price	Foam	Post	Flexibility	Rocker	Firmness	Offset	Rigidity	Ladies	Men	LadySport	Footwear	Available	Replaces Supernova	Description Classic Adidas narrow heel fit. Adidas torsion
	Sequence															system skewed medially for added pronation
Adidas	Boost	\$160	Slight	√	Moderate	Moderate	Moderate	12 mm	Moderate	1	√	√	√	_	6	support.
																Lightly posted with sodt forefoot for excellent cushioning.
Adidas	Tempo	\$150	slight		Mod	Good	Firm	10mm	mod	\checkmark	$\sqrt{}$		√ √			Submining.
	OT 2002															The benchmark shoe in the stability category. Seamless fit from yuear to year and the width variety helps for almost anyone.
	GT 2000 -									,				,		
Asics	3	\$160	Slight	_	Moderate	Good	Very Firm	10 mm	High	1	V	√	√	√	GT 2000-2	A hit deeper fit they the provious model of
								Womens:								A bit deeper fit than the previous model so narrow feet may struggle. Excellent combination of support and cushioning.
Asics	Kayano 21	\$200	Slight	_	Flexible	Good	Very Firm	10	High	1	$\sqrt{}$	√	√	√	Kayano 20	
	Adrenaline	*		,							,			,	Adrenaline	Very firm and very supportive with an excellent
Brooks	15	\$160	Extensive	√	Moderate	Moderate	Very Firm	12 mm	Moderate	٧	√	√	√	√	14	heel fit.
Mizuno	Wave Inspire 11	\$160	_	3/	Flexible	Good	Very Firm	12 mm	High	J	V	٦	V	_		A huge improvement over the previous model. Back to basics for Mizuno.
	inspire i i	Ψ100		· ·	1 lexible	0000	very i iiiii	12 111111	riigii	,	,	· ·			maphe 10	
New	000 5	# 400	0" 11				E.	40		.1	V	V	,	V	000 4	Midsole ended up a bit firmer compared to
Balance	860v5	\$160	Slight		Moderate	Moderate	Very Firm	12 mm	High	γ	٧	V	٧	V	860v4	previous models. Firm support. cradles the heel. Nice seamless upper and
Nike	Lunarglide 6	\$155	Slight	_	Moderate	Moderate	Firm	10 mm	Moderate	V	√	V	√	-	Lunarglide +5	watch for less stable lateral heel than old model.
	Zoom															Be careful of the convex heel midsole and extreme difference in firmness and molded arch. Easy to overcorrect the foot.
	Structure									,	,	,	,		Structure	
Nike	Triax+ 18	\$155	Extensive	√	Flexible	Good	Moderate	12 mm	Moderate	1	√	√	V	_	Triax +17	ha Oanna dana it in an Ingana dha himb.
Saucony	Omni 13	\$155	Slight	_	Light – moderate	Moderate	Very Firm	8 mm	High	1	√	V		√	Omni 12	the 8mm drop it is no longer the high-heeled sneaker it once was. Great heel fit and wide forefoot.
Saucony	Guide 8	\$150	Slight	√	Moderate	Moderate	Very Firm	8 mm	Moderate	1	√	V	√	√	Guide 7	Medial posted like all in this old series. 8mm drop

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CHART #3
NEUTRAL SUPPORTIVE RUNNING SHOES
(IDEAL FOR ORTHOTIC PROVIDERS WHO WANT A NEUTRAL BUT FIRM PLATFORM FOR AN ORTHOTIC DEVICE)

				Sole Plate	Forefoot		Heel Counter	Drop/	Torsional			Available at	Available at FitFirst	Width Sizing		
Brand	Model	Price	Midsole		Flexibility	Rocker	Firmness	Offset			Men				Replaces	Description
Asics	Fortitude	\$150	Firm	Wide	Moderate	Moderate	Very Firm	10 mm	Very	al.	اد	ما	2/	_		Shorter narrower fit in forefoot. Classic neutral supportive shoe; wide base accommodates many types of orthotics. Fortitude back in 2014!
Brooks	Dyad 8	\$150	Firm	Wide	Moderate		Very Firm		j	√ √	√	√ √	\ \ \			base, deep midfoot, and very deep heel area to accommodate a heel lift. More heavy forefoot overlays.
New Balance	1540v2	\$180	Firm	Wide		Moderate	,		Strong	√ √	√	√ √	,	√		A good alternative to the 840. Shallow toe box, straight last, multiple widths.
New Balance	3040	\$199	Firm	Wide	Moderate	Moderate	Weak, non abrasive		Strong	√	V	√	. √	√		The diabetic shoe excellent for arthritis and those with significant forefoot pathologies and friction issues.
New Balance	840v3	\$180					New M	odel Fall	2015							Due to a stitching defect, the v2 was discontinued early and the new model is due September 2015. It has not been sampled so no idea yet about features!
Saucony	Progrid Echelon 4	\$180	Firm	Wide	Moderate	Moderate	Very Firm	8 mm	Strong	V	V	V		V		Excellent neutral supportive shoe with a wide midfoot and more ground contact under long arch for excellent medial support.

CHART #4 CUSHION RUNNING SHOES
(FOR THE NEUTRAL TO CAVUS FOOT THAT REQUIRES EXCEPTIONAL CUSTIONING AND SOFTER RIDE)

				Sole Plate	Forefoot		Heel Counter	Drop/	Torsional			Available at	Available at FitFirst	Width Sizing		
Brand	Model	Price	Midsole	Width	Flexibility	Rocker	Firmness	Offset	Rigidity	Ladies	Men	LadySport	Footwear	Available	Replaces	Description
Asics	Cumulus 16	\$150	Soft	Medium	Moderate	Good	Moderate	10mm	moderate	V	V	V	√	V	Cumulus 15	The classic neutral cushion shoe. Fits a bit small. Seamless toe box is very accommodative.
								Women								The women's has 3 mm of additional heel
A = : = =	Niimbur 47	C400	0-#	Mod-	Moderate Stiff	0	F:	13mm Men	\/·	.1	.1	.1	J	V	Nimbur 45	height which is handy for plantar fasciitis and Achilles tendinitis sufferers. New seamless
Asics	Nimbus 17	\$190	Soft	Wide	Still	Good	Firm	10	Very	V	V	V	ν _	V	Nimbus 15	design
Brooks	Glycerin 12	\$170	Soft	Medium	Stiff	Good	Firm	10 mm	Moderate	V	V	V	V	V	Glycerin 11	One of the best cushioned neutral shoes with excellent support and depth in the rear foot.
Brooks	Ghost 7	\$150	Firm	Wide heel and forefoot	Moderate	Moderate	Firm	13mm	Moderate	V	V	V	V		Ghost 6	Very stable due to wide heel base. Deep toe box, great midfoot fit.
Mizuno	Wave Creation 16	\$190	Firm	Medium	Stiff	Moderate	Very Firm	12 mm	High	√	√	, √	·			Mizuno's top technical shoe with the wave in the rearfoot. The big rocker profile and extended forefoot wave make it excellent for quick toe off. Stiff forefoot
Mizuno	Wave Rider 18	\$160	Moderate	Moderate	Flexible	Good	Firm	10mm	Moderate	√	V	V	V	V	Rider 17	The new fir is back to the old great seamless locked in feel. Deeper heel fit as well.
Mizuno	Propechy 3	\$230	Firm	Medium	Very	Very	Firm	12mm	Very	√	√	√			Prophecy 2	The most noticeable thing was the very high rocker profile and extremely stiff forefoot. New model '14 is not rockered as much too bad.
New Balance	880v4	\$150	Soft	Medium	Moderate	Moderate	Moderate	12mm	Moderate	√	√	√	V	√	880v3	New Balance's 12mm heel drop shoe. Solid heel counter. Deep midfoot makes for less pressure on instep of foot.
New Balance	1080v5	\$170	Firm	Wide Rearfoot	Moderate	Max	Moderate	8mm	Moderate	√	V	V		V	1080v4	8mm heel drop, loss of cushioning from original model.
Nike	Pegasus +31	\$130	Soft	Moderat e	Flexible	Moderate	Weak	12 mm	Flexible	√	V	V	√	V	Pegasus +30	Excellent for the cavus foot and sports a seamless toebox accommodative for numerous forefoot pathologies.
Nike	Vomero 10	\$180	Soft	Medium	Flexible	Moderate	Moderate	12 mm	Flexible	√	V	V	√	_	Vomero 8	Simply the softest cushion running shoe on the market. If you're looking for marshmallow cushioning this is it.
On	Cloudsurfer	\$180	Firm	Moderate	Stiff	Good	Slightly Weak	7mm	Moderate	V	V	√	V			On is new to Canada and they come with a great fit, seamless toe box and stiff rocker
On	Cloudster	\$150	Firm	Moderate	Stiff	Very good	Firm	7mm	Firm	V	V	√	V			This model has a big toe spring or rocker profile!
Saucony	Triumph Iso	\$170	Firm	Narrow midfoot	Stiff	Good	Moderate	8 mm	Firm				√		Triumph 11	The 8 mm offset makes this and almost all of their models flatter shoes than Saucony produced a decade ago.
Saucony	Ride 7	\$150	Firm	Medium- wide	Flexible	Moderate	Moderate	8mm	Strong	, √	√	, √	\ √	√	Ride 6	Like virtually all Saucony runners, 8 mm offset and narrow heel. Wider forefoot

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CHART #5 TRAIL RUNNERS

(RUNNING SHOES THAT ARE MADE SPECIFICALLY FOR OFF ROAD RUNNING) (ALSO GOOD FOR WATER BASED FIELD HOCKEY TURF)

Brand	Model	Price	Time	Dense Medial Foam	Plastic Medial Post	Heel Counter Firmness	Drop/ Offset	Torsional	مطنعم	Man	Available at	Available at FitFirst	Width Sizing	Danisasa	Description
brand	Fuji	Price	Туре	roam	Post	rimness	Offset	Rigidity	Ladies	Men	LadySport	Footwear	Available	Replaces	Description This model will now come in both neutral and
Asics	Neutral Trabuco 3 Gore-Tex	\$160	Neutral	Slight	_	Very	10 mm	Moderate	V	V	√	√	_		slightly posted stability versions. The Gore-Tex upper option makes it waterproof. Non Gore-Tex available for \$150.
Asics	Fuji Trabuco 3 Gore-tex	\$160	Stability	Slight	V	Very	10mm	Moderate	√	V	V	V		Fuji- Trabuco 2	Non Gore- tex available for \$150
				- 5											The full ground contact sole and slightly stiffer
Brooks	Cascadia 10	\$160	Neutral	_	ı	Firm	8 mm	Moderate	V	V	√		l		forefoot makes this neutral option excellent with some wider based orthotics.
New Balance	WT910GT X	\$160	Neutral			Moderate		Moderate	V	V	√	V	V		Though a poor heel fit it does offer full ground contact outsole and a variety of widths, seamless toebox.
Saucony	Peregrine 5	\$130	Neutral			very	4mm	high	√	V		\ \ \			One of the lightest trail shoes on the market. Fairly narrow fir. Performance and trail protection at its best.
Saucony	Xodus 5.0	\$150	Neutral	_		Very	4 mm	High	V	√	V	✓			Very important shoe because of the stiff forefoot created by the rock plate in the midsole. Wide forefoot and stiffness make it excellent for many forefoot pathologies. Gore-Tex available for \$165.

CHART #6 WALKING SHOES PEOPLE WALK IN ALL KINDS OF SHOES FROM ATHLETIC TO CASUAL. THESE ARE SHOES SPECIFICALLY MARKETED TO THE WALKER. THEY ARE CHOSEN FOR THEIR SUPPORT AND ABILITY TO ACCOMMODATE AN ORTHOTIC

-						Stiff	Rearfoot	Torsional			Available at	Available at FitFirst	Width Sizing		
Brand	Model	Price	Type	Midsole	Rocker	Outersole	Depth	Rigidity	Ladies	Men	LadySport	Footwear	Available	Replaces	Description
New Balance	812	\$140	Neutral	Neutral	None	Moderate	Moderate	Moderat e	V	V	V		V		A classic walking shoe. Would be nice if it was a bit deeper in the rear foot, but the numerous widths really help with fitting.
New Balance	928	\$160	Support	Neutral	Very	√	V	Rigid	√	√	V	√	√		Classic stiff rockered forefoot; very deep. Would like to see a seamless bunion area.
Saucony	Grid Integrity ST 2	\$130	Neutral	Neutral	Very	Moderate	Moderate	moderate	√	√	V	V	√		Likely the best fitting athletic walker. Comes in white & black, and in three widths. Stretchy area around bunion area.
Saucony	Echelon Walker 2	\$150	neutral	Neutral	Some	Moderate	Moderate	Moderate		V		√	V	Echelon 1	Nice, open toe box with stretch leather panel

CHART #7 COURT, CROSSTRAINING AND FITNESS SHOES (SUPPORTIVE COURT, CROSSTRAINING AND FITNESS SHOES THAT ACCOMMODATE ORTHOTICS)

Brand	Model	Price	Sport	Sole Plate Width	Forefoot Flexibility	Heel Counter Strength	Deep Heel	Torsiona I Rigidity	Ladies	Men	Available at LadySport	Available at FitFirst Footwear	Width Sizing Available	Replaces	Description
Asics	180TR	\$110	X-Train	Wide	Flexible	Firm	V	Rigid	1	V	V	√	-	180TR	Excellent cross trainer; slight medial post, very deep, relatively rigid in the forefoot.
	Craze TR-														A terrific shoe for quick gym activities, lateral motion yet runs like a low profile running shoe.
Asics	2	\$120	X-train	Moderate	Moderate	Firm	√	Moderate	√	√	√	. 1		Craze	
Asics	Gel Intensity	\$140	x-train	Wide	Mod- firm	Form	Mod.	Rigid		V		\checkmark			Trainer that looks like a running shoe but has more lateral support and firm supportive midsole. Neutral, lots of lateral support and good cushion.
Asics	Resolution 6	\$150	Tennis	Moderate	Very Stiff	Firm	_	_	1	√	V	V	-	Resolution 5	Excellent forefoot, lateral stability.
Columbia	Drainmaker 3	\$90	Aqua	Moderate	Flexible	Soft	√	Flexible	√		V				Drain holes in the base to reduce "pooling" in the shoe. Great aqua fit shoe.
	Wave Bolt		Indoor											Wave Bolt	Lightweight shoe with good support. Good for indoor court sports, squash, racquetball,
Mizuno	3	\$130	Court	Moderate	Flexible	Very Firm	_	Rigid	1	√	√		_	2	volleyball.
Mizuno	Lightning RX3	\$150	Indoor Court	Moderate	Very Flexible	Moderate	Moderate	Rigid	1	V	V		ı	Lightning RX2	Top of the line Mizuno indoor court shoe with wave plate in rear foot; great torsional rigidity.
New Balance	608v3	\$100	X-Train	Moderate	Stiff	Moderate	V	Moderate	V	V	V		√	622	A throwback to the old stiff-soled cross trainer. Numerous widths, excellent for post surgery. The new 624 is too flexible for this use.
New Balance	786	\$110	Tennis	Wide forefoot	Stiff	Moderate	Moderate	V	V		√		√	646	Mesh upper with overlays in the support areas. Breathable, good lateral flange.
New Balance	797	\$60	X-Train	Wide Foreoot	Moderate	Moderate	V	V	V	√		V	V		Great lateral flange for excellent stability at the ball of the foot. Good gym and Zumba shoe.
New Balance	996	\$150	Tennis	Wide	Stiff	Firm	V	Very Rigid	V		V	. √			Very deep cupsole at met heads for excellent lateral support and change of direction!
New Balance	1012	\$120	X-Train	Moderate	Stiff	Firm	V	Rigid	1	V	V		V	1011	Good cross trainer; the mesh upper makes it more breathable than leather cross trainers.
New Balance	806	\$140	Tennis	Wide	Moderate - Stiff	Firm	Moderate	Rigid	1	V	V		V	804	Widths come in handy, particularly for a narrow foot.
New Balance	857	\$140	X-Train	Moderate	Stiff	Firm	V	Moderate	1	V	V		√	856	Full ground contact; neutral rollbar excellent support; often overlooked.
Wilson	Rush Pro	\$150	Tennis	Moderate	Moderate - Stiff	Firm	√	Rigid	1	V	√		_	Tour II	The lateral flange in the forefoot helps to reduce inversion sprains and makes for better lateral control in the forefoot.

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CHART #8
LADIES DRESS, CASUAL AND ORTHOPAEDIC SHOES
(LADIES DRESS, CASUAL AND ORTHOPAEDIC SHOES THAT CAN ACCOMMODATE ORTHOTICS OR HAVE SPECIFIC ORTHOPAEDIC ATTRIBUTES)

Brand Model Price Type Removable Insole Closure Stretch Elastic Flexibility Rocker Depth Rigidity Available Description Dress, John John John John John John John John												Width	
Aravon Maya \$170 Piest Full Length Mary Jane Stiff Good Deep Rigid V Dress Samless teather upper; deep; accommodative. Aravon Farren \$180 Dress Full Length Lace-up Flexible None Moderate Moderate Moderate V Seamless teather upper; deep; accommodative. Siff forefoot os terrific. Mary jane styles slip less in the healt shar the traditional clog and a couple have removable insoles. EI Boot and Satiff repe sole and younger style with removable insoles. EI Boot and Satiff repe sole and younger style with removable insoles. Full Length Stiff Stiff	Brand	Model	Drice	Type	Pemovahle Insole	Closura			Pocker				Description
Aravon Maya \$170 Heel Full Length Mary Jane — Stiff Good Deep Rigid √ accommodative. Aravon Farren	Diana	Woder	11100	туре	Kemovable msole	Closure	Liastic	Tiexibility	Nockei	Бери	Rigidity	Available	Description
Aravon Farren \$180 Dress Casual Full Length Lace-up — Flexible None Moderate Moderate √ Seamless leather upper; deep; accommodative good fit. Stiff forefoot os terrific. Mary jane styles slip ess in the heels than the traditional clog and couple have removable insoles. So outpel have removable insoles. So outpel have removable insoles. Casual Full Length Stiff Good Deep Rigid √ Seamless leather upper; deep; accommodative good fit. Stiff forefoot os terrific. Mary jane styles best shan the traditional clog and couple have removable insoles. Couple have removable insoles. Good for metarsalgial vers. Mary Jane Style shoet, three-quarter temovable insoles. Good for metarsalgial vers. Mary Jane style shoet, three-quarter removable insoles with metatarsal pad; stiffer orefoot. Stiff Good Deep Rigid √ Torefoot. Slides come in both leather and mesh upper. Excellent for around the house, and take not tradition. Slightly narrower fit as well. Stiff sole, thick removable footbed. Naot Art S190 Dress Casual Full length Mary-Jane				,									Dressy stiff rockered sole; wider forefoot; very
Aravon Farren \$180 Casual Full Length Lace-up — Flexible None Moderate Moderate V good fit. Stiff orefoot of the traffic Mary jane styles slip ess in the heels than the traditional clog and a couple have removable insoles. A stiff creps sole and younger style with removable insoles. A stiff creps sole and younger style with removable insoles. A stiff creps sole and younger style with removable insoles. A stiff creps sole and younger style with removable insoles. A stiff creps sole and younger style with removable insoles. A stiff creps sole and younger style with removable insole. Good for metarsalgia years. Mary Jane style shoe; three-quarter removable insole with metatarsal pad; stiffer forefoot. Mary Jane	Aravon	Maya	\$170	Heel	Full Length	Mary Jane		Stiff	Good	Deep	Rigid	√	accommodative.
Aravon Farren \$180 Casual Full Length Lace-up — Flexible None Moderate Moderate V good fit. Stiff orefoot of the traffic Mary jane styles slip ess in the heels than the traditional clog and a couple have removable insoles. A stiff creps sole and younger style with removable insoles. A stiff creps sole and younger style with removable insoles. A stiff creps sole and younger style with removable insoles. A stiff creps sole and younger style with removable insoles. A stiff creps sole and younger style with removable insoles. A stiff creps sole and younger style with removable insole. Good for metarsalgia years. Mary Jane style shoe; three-quarter removable insole with metatarsal pad; stiffer forefoot. Mary Jane				Dress									Seamless leather upper: deep: accommodative:
Multiple Dansko Styles S150-175 Dress Casual Full Length Stiff	Aravon	Farren	\$180		Full Length	Lace-up	_	Flexible	None	Moderate	Moderate	√	
Dansko styles \$150-175		N 4											
EI Naturalista Mary Jane \$240 Dress Casual Full Length Stiff Mary Jane Stiff Casual Full Length Stiff Good Deep Rigid √ removable insole. Good for metarsalgia years. Mary Jane style shoe; three-quarter removable insole with metatarsal pad; stiffer for forefoot. Moderate Stiff Good Deep Rigid √ removable insole with metatarsal pad; stiffer for forefoot. Slides S100-140 Casual Full Length Slip-on — Moderate Moderate N/A Flexible — orthotics. Dress Casual Full length Mary-Jane — Stiff Good Moderate Rigid — Different styling from the classic Naot Sea. Slightly narrower fit as well. Stiff sole, thick removable footbed. Naot Adriatic \$190 Dress Casual Full length Mary-Jane — Stiff Good Moderate Rigid — Wide Mary Jane strap hold the heel well. Slim Naot Art \$190 Casual Full Length Mary-Jane — Rigid Good Moderate Rigid — ook, not really stiff, but very accommodative. Naot Sea \$180 Casual Full Length Mary Jane — Rigid Good Moderate Rigid — foot bed; very deep. Naot Nautilus \$190 Casual Full Length Mary Jane — Rigid Good Deep Very Rigid — stiff rockered like the Sea. Seamless toe box, all leather with a Velcro Crosure. Wide base and dressy look!	Dansko		\$150-175				Dress	Casual					
Naot Art \$190 Dress Casual Dress Casual Silp-on Moderate Stiff Good Deep Rigid V Full Length V Orefoot. Sildes come in both leather and mesh upper. Excellent for around the house, and take removable forothed. Silfer or around the house, and take removable for around the house, and take removable	EI	Boot and											A stiff crepe sole and younger style with
Rhapsody \$200 Casual 3/4 Length Mary Jane — Stiff Good Deep Rigid √ femovable insole with metatarsal pad; stiffer forefoot.	Naturalista	Mary Jane	\$240	Casual	Full Length			Stiff					·
Kumfs Rhapsody \$200 Casual 3/4 Length Mary Jane — Stiff Good Deep Rigid √ forefoot.				Dress				Moderate					
Merrell Slides \$100-140 Casual Full Length Slip-on — Moderate Moderate N/A Flexible — Excellent for around the house, and take onthotics. Dress Casual Full length Mary-Jane — Stiff Good Moderate Rigid — Wide Mary Jane strap hold the heel well. Sliff sole, thick removable footbed. Naot Art \$190 Casual Full length Mary-Jane — Moderate None Moderate None Moderate — Wide Mary Jane strap hold the heel well. Slim length Mary-Jane — Rigid Good Moderate Rigid — Slip-on, tot bed; very deep. Naot Sea \$180 Casual Full Length Mary Jane — Rigid Good Moderate Rigid — Slip-on type shoe with a rigid forefoot, excellent cor foot bed; very deep. Naot Nautilus \$190 Casual Full Length Zipper — Stiff Good Deep Very Rigid — Slip-on type shoe with a very accommodative. Slip-on type shoe with extra strap at midfoot; stiff rockered like the Sea. Seamless toe box, all leather with a Velcro closure. Great for non-symptomatic bunions. Velcro Velcro Dress Casual Full Length Velcro — Flexible Moderate Deep Rigid — A very important shoe with seamless, full stretch toe box and Velcro closure. Wide base and dressy look!	Kumfs	Rhapsody	\$200		3/4 Length	Mary Jane	_		Good	Deep	Rigid	√	•
Merrell Slides \$100-140 Casual Full Length Slip-on — Moderate N/A Flexible — orthotics. Dress Casual Naot Adriatic \$190 Dress Casual Full length Mary-Jane — Stiff Good Moderate Rigid — Wide Mary Jane trap hold the heel well. Slim look, not really stiff, but very accommodative. Naot Sea \$180 Casual Full Length Mary Jane — Rigid Good Moderate Rigid — Wide Mary Jane Hull Length Mary Jane — Rigid Good Moderate Rigid — Slip-on type shoe with a rigid forefoot, excellent core foot bed; very deep. Naot Nautilus \$190 Casual Full Length Mary Jane — Stiff Good Deep Very Rigid — Slip-on type shoe with extra strap at midfoot; Slip-on type shoe with a Velcro Portofino Boot \$195 Casual Full Length Velcro — Flexible Moderate Deep Rigid — A very important shoe with seamless, full stretch toe box and Velcro closure. Wide base and dressy look!													
Dress Casual Naot Adriatic \$190 Dress Casual Full length Mary-Jane Stiff Good Moderate Rigid Naot Art \$190 Casual Full length Mary-Jane Moderate None Moderate Rigid Naot Sea \$180 Casual Full Length Mary Jane Rigid Good Moderate Rigid Naot Sea \$180 Casual Full Length Mary Jane Rigid Good Moderate Rigid foot bed; very deep. Slip-on, Velcro Portofino Boot \$195 Casual Full Length Velcro Flexible Moderate Deep Rigid Naot Velcro Dress Dr	Merrell	Slides	\$100-140	Cagual	Full Length	Slin-on	_	Moderate	Moderate	Ν/Δ	Flevible	_	
Naot Adriatic \$190	WIGHTON	Ciidoo	ψ100 T10	Ododdi	T dii Eorigin	Onp on		Wodorato	Moderate	14//	Полью		
Naot Adriatic \$190													
Naot Art \$190 Dress Casual Full length Mary-Jane Moderate None Moderate Moderate Wide Mary Jane strap hold the heel well. Slim look, not really stiff, but very accommodative. Naot Sea \$180 Casual Full Length Mary Jane Rigid Good Moderate Rigid foot bed; very deep. Naot Nautilus \$190 Casual Full Length Zipper Stiff Good Deep Very Rigid stiff rockered like the Sea. Portofino Boot \$195 Casual Full Length Velcro Flexible Moderate Deep Rigid A very important shoe with seamless, full stretch toe box and Velcro closure. Wide base and dressy look!	Nant	Δdriatic	\$190	Casuai	Full length	Mary- Jane		Stiff	Good	Moderate	Rigid		removable footbed.
Naot Art \$190 Casual Full length Mary-Jane Moderate None Moderate look, not really stiff, but very accommodative. Naot Sea \$180 Casual Full Length Mary Jane Rigid Good Moderate Rigid look, not really stiff, but very accommodative. Rigid Good Moderate Rigid look, not really stiff, but very accommodative. A cute shoe with a rigid forefoot, excellent cor foot bed; very deep. Slip-on type shoe with extra strap at midfoot; Slip-on type shoe with extra strap at midfoot; Seamless toe box, all leather with a Velcro Closure. Great for non-symptomatic bunions. Portofino Boot \$195 Casual Full Length Velcro Flexible Moderate Deep Rigid A very important shoe with seamless, full stretch toe box and Velcro closure. Wide base and dressy look!	IVAOL	ranatio	ψίου	Dress	1 diriongai	wary ouric		Ottil	Cood	Woderate	rtigiu		Wide Mary Jane strap hold the heel well. Slim
Naot Sea \$180 Casual Full Length Mary Jane — Rigid Good Moderate Rigid — foot bed; very deep. Naot Nautilus \$190 Casual Full Length Slip-on, zipper Stiff Good Deep Very Rigid Slip-on type shoe with extra strap at midfoot; stiff rockered like the Sea.	Naot	Art	\$190		Full length	Mary-Jane		Moderate	None	Moderate	Moderate		look, not really stiff, but very accommodative.
Naot Nautilus \$190 Casual Full Length Zipper — Stiff Good Deep Very Rigid — Slip-on type shoe with extra strap at midfoot; Stiff rockered like the Sea. Velcro Portofino Boot \$195 Casual Full Length Velcro — Flexible Moderate Deep Rigid — Seamless toe box, all leather with a Velcro closure. Great for non-symptomatic bunions. A very important shoe with seamless, full stretch toe box and Velcro closure. Wide base and dressy look!	Nant	Sea	\$180		Full Length	Mary Jane	_	Rigid	Good	Moderate	Rigid	_	,
Naot Nautilus \$190 Casual Full Length zipper — Stiff Good Deep Very Rigid — stiff rockered like the Sea. Velcro Portofino Boot \$195 Casual Full Length Velcro — Flexible Moderate Deep Rigid — Velcro Dress Dre	IVAOL	Oca	ψ100	Ododai	i dii Ecrigiii	iviary danc		rtigia	Cood	Woderate	rtigia		loot bed, very deep.
Velcro Portofino Boot Velcro Velcro Dress Casual Full Length Velcro Dress Dress Casual Full Length Velcro Dress													
Velcro Portofino Boot \$195 Casual Full Length Velcro — Flexible Moderate Deep Rigid — closure. Great for non-symptomatic bunions. A very important shoe with seamless, full stretch toe box and Velcro closure. Wide base and dressy look!	Naot	Nautilus	\$190	Casual	Full Length	zipper	_	Stiff	Good	Deep	Very Rigid	_	
Portofino Boot \$195 Casual Full Length Velcro — Flexible Moderate Deep Rigid — A very important shoe with seamless, full stretch toe box and Velcro closure. Wide base and dressy look!		Velcro		Dress									,
Velcro Dress stretch toe box and Velcro closure. Wide base and dressy look!	Portofino		\$195		Full Length	Velcro	_	Flexible	Moderate	Deep	Rigid	_	
and dressy look!				_									
		Velcro		Dress									
	Portofino	Stretch	\$180	Casual	Full Length	Velcro	V	Flexible	Moderate	Deep	Rigid	_	,
A fun grouping of lace up shoes in colour.				Drass									
Portofino Lace Up \$190 Casual Full Length Lace-up — Flexible Moderate Deep Rigid — accommodative and younger looking too!	Portofino	Lace Up	\$190		Full Length	Lace-up	_	Flexible	Moderate	Deep	Rigid	_	. ,
			Ψ		. u =0g	2000 00				2006			
Cush'n Slipper, Neoprene upper, with one large velcro strap.						[,			l	_		
Propet Foot \$80 Casual Full Length Velcro √ Flexible — Moderate Flexible √ Excellent slipper or outdoor shoe.	Propet	⊢oot	\$80	Casual	Full Length	Velcro	٧	Flexible		Moderate	Flexible	√	Excellent slipper or outdoor shoe. Extremely important shoe due to super-flexible
													elastic Lycra toebox; handles the most difficult

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Propet	Bianca	\$130	Ortho	Full Length	Velcro	\checkmark	Flexible	_	Deep	Flexible	_	arthritic foot very well.		
Romika	Various Styles	\$100-120				Dress	Casual					Affordable new line for us. They accommodate orthotics and are generally wide at the base for midfoot support.		
Wolky	Victoria	\$200	Dress Casual	Full Length	Slip-on	_	Stiff	Good	Deep	V	_	Stiff rocker slip-on with lockdown elastic over the instep; thick cork foot bed allows extra-thick orthotic in this dress casual shoe.		
Xsensible	Allure	\$245	Ortho	Full Length	Velcro & Lace-up	V	Flexible	None	Moderate	Flexible	V	Full elastic toebox. Flexible forefoot, should be stiffer.		

CHART #9 LADIES SANDALS

(SANDALS WITH REMOVABLE FOOTBEDS TO ACCOMMODATE ORTHOTICS OR HAVE SPECIFIC ORTHOPAEDIC ATTRIBUTES) * see article attached

Brand	Model	Price	Type	Removable Insole	Closure	Sole Plate Width	Forefoot Flexibility	Rocker	Back Strap	Torsional Rigidity	Width Sizing Available	Description
Aravon	Katy	\$150	Dress Casual	Full Length	Velcro	Moderate	Flexible	Slight	√	Moderate		Excellent walking sandal; multiple widths; large removable foot bed; velcro straps.
Portofino	Diagonal Strap	\$175	Casual	Full Length	Velcro	Moderate	Moderate stiff	None	V	Moderate		Not much toe spring with the cork insole and it's actually quite stiff. Wide base in the midfoot so can take a fairly hefty orthotic if needed.
Portofino	Open Toe	\$165	Casual	Full Length	Velcro	Moderate	Moderate stiff	None	V	Moderate		A closed heel sandal. It's an excellent option for extremely posted orthotics or use of a heel lift. Also creates better rearfoot stability in case of extreme hallux varus, for instance.
Sole	Flip Flop	\$80	Casual	None	Slip-on	Wide	Moderate stiff	Good	_	_		Excellent arch support built off the Sole off the shelf insoles.
Teva	Tirra	\$100	Casual	None	Velcro	Wide	Moderate stiff	Good	√	Rigid		Best for arch support in young looking sandal for road or beach.
Wolky	Jewel	\$180	Dress	Full Length	Velcro	Wide	Rigid	Good	\checkmark	Rigid	_	The best stiff rockered walking sandal made.

CHART #10

For charts on traditional minimalism, please visit our website.

NATURAL MINIMALISM

THIS MINIMALIST CATEGORY IS DEFINED BY ITS TORSIONAL FLEXIBILITY AND LACK OF SUPPORTIVE UPPER. THE MIDSOLE FLEXES IN ALL PLANES AND THE HEEL COUNTER IS OFTEN NON EXISTANT.

Brand	Model	Price	Midsole	Sole Plate Width	Forefoot Flexibility	Rocker	Heel Counter Firmness	Drop/ Offset	Torsional Rigidity	Ladies	Men	Available at LadySport	at FitFirst Footwear	Width Sizing Available	Replaces	Description
	Free				Very				Extremely		,	,	,		Free Run	A decent offset on the shoe at about 6mm So not that minimal really. It's a barefoot minimalist Shoe that has no heel counter and is torsionally extremely flexible.
Nike	Run 5.0	\$135	Soft	wide	Flexible	None	None	6 mm	Flexible	٧	٧	٧	٧		+4	
Nike	Free Run 4.0	\$160	Soft	Wide	Very flexible	None	None	4mm	Extremely flexible	V	V		V			Very soft, stretchable upper suitable for hammer toes or bunions. Extremely flexible
Sauco	Kinvara	\$130	Soft	Wide heel, forefoot	Moderate	Slight	√	4mm	Moderate	√	V	√	- √			More minimalist traditional really as it is not terribly torsionally flexible. Great light road show. Excellent forefoot cushion.
New Balanc e	Fresh Foam Zante	\$130	Soft	Moderat e	Flexible		Moderat e	4mm	Flexible	1	V	V	1			Brand new shoe from NB on their fresh foam platform. Very soft and light with good cushion protection
On	Cloud	\$140	Firm	Moderat e		Slight	Moderat e	7mm	Flexible	V		V	V			A more cushioned alternative to the nike free

Chart #11

MAXIMALISM AND STIFF ROCKER

Brand	Model	Price	Midsole	Sole Plate	Forefoot Flexibility	Rocker	Heel Counter	Drop- Offset	Torsional Rigidity	Ladies	Mens	Available at	Availabl e at	Width Sizing	Replaces	Description
				Width			Firmness					Ladysport	FitFirst	Available		
	Olympus	\$170	Firm	Wide	Very stiff	Very	No heel	0mm	Flexible	√	V	√	√			Barefoot meets maximalism.
						rockered	counter									0 drop, natural shaped toe
Altra																
	Bondi 4	\$170	Firm	Medium	Very stiff	√	Very	4 mm	√	V	√	√	√		Bondi 2	The widest fitting hoka so most popular for hallux
Hoka																issues
	Mafate	\$180	Firm	Very wide	Stiffest	√	Very	4mm	√	V	√	√	√			The original 'big' shoe look.
																The latest version is more
Hoka																sleek.
	Stinson	\$170	Firm	Wide	Very stiff	√	Very	4mm	√	V	√	√	√			Sleeker than Bondi. Trail
																and road soles
Hoka																
	33-m	\$160	Firm	Wide	Mod. Stiff	√	Very	10m	√	V	√	√	√			Asic's entry in the thick, stiff
								m								shoe market. Nice, regular
Asics																looking option
	Cloudsurf	\$180	Firm	moderate	Mod. stiff	Very	Mod	10m	√	√	V	√				Big toe spring
	er					rockered		m								
On																
		\$140	Firm	Moderate	Stiff	V	Generally	4-	√	√	V	√	V	NB 910		Any trail show with a plate is
		-200					firm	10m								bound to be stiff and splint
Any Trail	Shoes with							m								the forefoot somewhat
a Rock P																

Metatarsalgia and Stiff 'Rockered' Shoes

Over the past few years, it has become increasingly more common for health care professionals to refer patients for a "stiff rocker profiled shoe" in the management of numerous ball-of-the-foot ailments. Here are some of the more important styles to keep in mind when trying to manage metatarsalgia with the use of forefoot stiffness.



Noat Sea: \$190

Our best-selling dress casual shoe for 5 years now. A great combination of stiffness and toe spring/rocker profile in a stylish shoe that goes with pants as well as skirts. The thick cork footbed has excellent longitudinal arch support as well as a met pad. When the insole is removed there is exceptional depth for any orthotic device. There are a number of other upper styles with this same stiff sole, including a slip on, the Nautilus.



New Balance 928: \$160

This 4th generation stiff rocker profiled shoe has enjoyed much success with those needing a stiffer shoe with a generous toe spring. The 928 is the stiffest in the series yet. As there is **no plate** in the midsole, the forefoot stiffness can break down with extended use, especially for heavier individuals. So be careful if you want the original stiffness over the complete life of the shoe as it will get more flexible. Widths to 4E in women's and 6E in men's.



Wolky Jewel: \$185

I have had two more people send postcards to me while away to say "thank you!" for making their holiday. Both individuals were forefoot pain sufferers who wanted to wear sandals with their custom orthotics. Adjustable in all three fit zones (heel, midfoot, and forefoot). It has a cushioned, removable footbed with metatarsal support. The midsole is contoured up the midwall of the longitudinal arch to support the foot and/ or orthotic. Wedge heel and stiff rockered forefoot makes this sandal #1.



Aravon Maya/Mia/Mona

This series of dress shoes are appropriate for wearing with a skirt to work or even to a party! The key to the long term success of this series is this Stridearc sole.

It is a molded sole with a heel counter.

The forefoot is a stiff rocker with structural arch support and a removable full length insole. Can be worn on it's own or can actually accommodate a fairly hefty full-length orthotic.



Wave Mizuno Creation 15: \$189.99

One of the only neutral road running shoes that has a forefoot stiffening plate to lessen the flexibility in the forefoot. The extended forefoot wave ensures a certain amount of stiffness over the life of the shoe. Minimal overlays and accommodative nylon in the forefoot helps to cut down on sheering forces for those with hammer toes, bunions, and the like.



Dansko Deidra: \$175

A stiff rockered Mary Jane from Dansko with a snug heel fit. This is a slimmer version of your traditional Dansko, but true to the stiff forefoot design. Just one of the slew of Mary Jane style dress shoes which help to lock the heel in place and can take an orthotic with a stiff soul to still go with a skirt or dress



Saucony Xodus 5: \$150

A tremendous series of trail shoes that have a narrow heel fit with a wide, deep accommodative toe box. The 'rock plate' lodged in the midsole makes the shoe rigid. With a good toe spring, the rocker profile and sole stiffness is excellent for running on the road or the trails. Also available in Goretex.



Dromedaris Hornbill: \$200

Dromedaris used to be a maker of Dansko shoes, but they now have their own line. This thick soled lace up wingtip model for women is stylish and has a removable foot bed which many of the Dansko's have not had in the past. Though a little bulky and heavy, it has an excellent fit. The shoe splints the forefoot and makes ease of toe off as is expected from a stiff rocker shoe.



Altra Olympus: \$170

This shoe has the upper of the barefoot world meeting the stiff rocker of the maximalist stiff rocker world.

It's natural foot shape, seamless upper, lack of heel counter and zero drop shows the influence that the barefoot movement had on its design.

However, at the same time it has a wonderfully stiff rockered, well cushioned midsole base that limits forefoot movement and provides exceptional cushioning.



Naot Nautilus: \$190

This is a very stylish shoe built on the classic Naot Sea base, but in a high vamp slip on.

Still available only in one width, the thick cork removable foot bed does add some extra depth to the shoe when removed. Unfortunately, the shoe does not have laces or any strapdown in the upper so heel slippage can be an issue.



New Balance WW1069GTX: \$170

Versions of this model have been in the line for a number of years. The shank/rock plate creates additional stiffness in the forefoot. Obviously, the multiple widths available in it make it more accommodative. However, with the heavy leather upper it is not as valuable for those with hammertoes and bunions relative to a mesh upper running shoe.



El Naturalista Boot: \$240.00

This boot has a stylish look and a thick crepe rubber sole. It's quite stiff in the forefoot with a removable foot bed. The boot comes in only one width, but it fits relatively wide. Side panel bootop elastic makes the boot easier to slide on and off.



Hoka Mafate Speed: \$180

Hoka continues to broaden their footwear line. With some of the new styles, we need to be careful due to the fact that they are becoming more flexible and hanging their marketing hat on the additional cushioning rather than the stiff forefoot.

You can be rest assured that we will only carry the stiffer rockered models moving forward. The Hoka Mafate Speed pictured here is a lightweight extremely breathable stiff rocker Hoka.

The shoes were originally designed for ultradistance running and thereby their design does a good job of managing friction and limiting the use of smaller muscles in the foot and lower leg. It's the perfect design for so many forefoot, calf, achilles and plantar fascia pathologies!

Key Terms for Shoe Trends in 2015

Stretchable Uppers

Traditional upper materials like leather and synthetic leathers, which have a limited amount of give, are being combined with 4 way stretchable materials, including Lycra and spandex, to help accommodate foot abnormalities (bunions, hammer toes, claw toes, etc.). XSensible footwear combines thin leather or suede skins with a combination of Lycra and spandex to create orthopaedic magic in a dress casual shoe. Athletic suppliers are also using stretchable material insets to accommodate protruding Taylor's bunions. Some orthopaedic companies like Propet, Pedor, and P.W. Minor are making shoes with completely elastic toe boxes, which are useful for fitting individuals with diabetes or arthritic feet.

Rocker Soles

The most popular prescription right now is for a stiff rocker soled shoe to help manage many forms of metatarsalgia. Many types of athletic designs increase the "rocker profile" or "toe spring" of the shoe and the toe of the shoe often appears slightly "turned up". When this "rocker profile" is combined with a lack of flexibility, a rocker sole effect is often achieved. True rocker soles are internally flat and have a rocker that is apexed in the forefoot. Some shoes have a heel/toe rocker whose shape is much like that of a rocking horse.

In these shoe designs, the toes sit in a dorsi-flexed position when the foot is bearing weight. This is a very useful strategy for limiting movement at the metatarsals and can act like a splint for the forefoot, while letting the individual ambulate normally.

Hokas and "Maximalism"

Developed by a European trail runner, this platform "moonboot" running shoe is winning trail runs all over Europe. Its application here is far more often as an orthopaedic device to manage metatarsalgia in the general population. The stiff rockered thick sole provides an extremely light weight and cushioned base that is stable and supportive. By splinting the forefoot there is minimal flex at the MT heads and relief for the neuroma, hallux rigidus, and rheumatoid arthritis sufferer. Goofy looking, but it can put a smile on the face of the crankiest foot!

Skeletal Heel Counter

In some cases heel counters are being minimalized by removing some of the girth of the counter leaving only a skeletal framework to support the rearfoot. This is done primarily to reduce weight, and promoted as being just as strong as the traditional "bomb proof" heel counters celebrated for their control of rearfoot motion. You be the judge!

Minimalism

The barefoot movement created a visceral response by the athletic shoe manufacturers to develop a "new" category of shoes called "minimalist" footwear!

Unlike the traditional jogging shoe which has a fairly consistent midsole heel to toe grade of 12mm (eg. 24 mm heel height and 12 mm forefoot height), minimalist shoe grades are anywhere from 0 mm to 8 mm. The shoe heights from the ground are as varied as the number of styles. In some ways the variety of heel heights can be useful as long as one knows what they are putting their feet into. Recommending styles to patients becomes a daunting task with all these different measurements!

The idea behind wearing "less shoe" is the conventional running shoe and its progressive pronation control systems are causing more harm than good. Feet were made to move freely and are therefore stronger and more efficient when left unshod. With the minimalist shoe, the gait returns to a more natural midfoot strike and many injuries are avoided. Which injuries, and who exactly are candidates for this strategy, is the million dollar question!

Most minimalist shoes are recommended as an adjunct to your traditional footwear. You are to introduce it gradually and see if indeed "less" is "more". So far a lack of education and compliance has been the biggest hurdle, but with a well-designed strategy and the right amount of minimalism . . . sometimes the most stubborn problem is only a "minimalist "step away!

Traditional Minimalism: Some shoes have the traditional heel counter support and torsional rigidity; they are just thinner and more "minimal" in that respect. These shoes are a throwback to the old racing & training shoes of the late '70s. Running with an athletic midfoot strike has always been the ideal gait pattern for this style of footwear. One should be aware of the reduced heel height and possible extra strain on the Achilles and gastroc/soleus. A good example of a traditional minimalist shoe is the New Balance 1400, or the Saucony Cortana.

Barefoot Minimalism: This type of minimalist shoe is, in the same design way, attempting to create more freedom of movement by minimalizing the amount of support in the shoe. This is usually done by all but eliminating a heel counter and designing the midsole/outsole to be torsionally flexible, thus mimicking a shoeless scenario. The midsole thickness and heel grade can vary significantly, but are usually relatively low profile.

The Nike Free is a barefoot minimalist shoe category developed by Nike which allows maximum foot flexibility in all planes while still offering protection with some cushioning and a sock-like upper. The idea is to allow the athlete an opportunity to exercise the foot, increase proprioception, and build intrinsic strength. It is suggested to initially use in conjunction with your regular footwear, as a training tool for your feet.

There are two main styles of the Free shoes; the 5.0 and the 3.0. The 5.0 is thicker than the 3.0, and is built with a 7 mm grade. The 3.0 is one step closer to being shoeless, with its low profile and narrower midfoot.

The Vibram Five Fingers line is another example of barefoot minimalist shoes. The Five Fingers is a foot covering where the toes go into five finger-like sleeves. This shoe line is a staple for the barefoot fundamentalist.

Definitions & Terminology

Last Type

The last is the mold around which the shoe is made. It influences many things about the shoe including, most importantly, the fit and support. A shoe is designed around a last just like a dress is designed around a pattern. The last is the culmination of all the designer's wants and needs with respect to the fit of the shoe. Now depending on the materials chosen and the manufacturing process, the end result may or may not reflect the last mandate, but when the same mould is used there is a greater chance of consistency.

Straight lasted shoes generally provide superior support for the pes planus, or flatter foot, a common excessive pronator.

The curved last is often associated with the cavus, or high rigid arched foot, and can commonly be sculpted or dished away under the long arch, making the shoe torsionally more flexible.

Lasts that are neither very straight, nor very curved can be denoted semi-curved (SC), as even the straightest of the straight lasts used in athletic shoes have a curve of approximately 8 degrees.

Board Last, Slip Last & Strobel Last

When manufacturing a shoe, there are 3 basic ways to laminate the upper to the midsole or foamy base of the shoe:

- Board lasting is where the sides of the upper of the shoe are tucked under a board and the board is glued to the midsole holding the two together. This board usually stops just before the metatarsals. From here the sides of the upper are joined together, sewn and glued down. The board creates increased torsional rigidity in the rearfoot with maximum flexibility in the forefoot.
- 2. **Slip lasting** is what occurred in the forefoot of example (1). The upper is sewn together as one piece from heel to toe; negating the need for a board to bind the sides of the upper. This moccasin or slip lasting is used in some shoes from heel to toe to increase flexibility and aid in achieving a snug contoured fit to the foot.
- 3. **Strobel lasting** is now the most popular way to construct an upper. It is really a modification of the slip last. It's like sewing a flat insole around its outer edge to the rest of the upper. The midsole sits on this sole-shaped piece of material. Companies are using midsole materials for this base piece to get enhanced cushioning in the shoe.

Combination Lasting

A method of lasting where the forefoot is slip lasted and the rearfoot is board lasted. This allows for flexibility in the forefoot and extra support in the rearfoot. Combination lasting is mostly used to add torsional rigidity in shoes. In the charts we say "board lasting" as a short form for combination pronators.

Midsole

The midsole is the area between the upper and the outersole of the shoe. Usually made of EVA pre-compressed foam or polyurethane, this is where all the shock-absorbing bells and whistles are housed. Air bags, hexalite gel, etc., along with the foam, helps to attenuate the shock while its firmness or softness dictates the shoe's rating for stability, rigidity and often its motion control capabilities. It is

also here that densities of material are varied to increase medial control and forefoot flexibility depending on the durometer, or firmness, of the material that is chosen and placed in key areas of the shoe.

Dual Density Midsole

A firmer density of EVA located on the medial side of the midsole which guards against premature medial midsole breakdown, common to excessive pronators.

Medial Post

Lodged into the medial, or inside aspect, side of the midsole are firm plastic or urethane plugs that keep the foams from collapsing under the extra pressure exerted by excessive pronation. In some cases, this plug is an integral part of the heel counter and acts as a restrictive post and a control mechanism for rearfoot pronation. In other cases, the post is simply a firmer, higher density material on the medial aspect of the shoe. Many posts are now incorporated as part of the *midfoot shank* (see below) and extend into the medial midsole. Posts are rarely found in the forefoot.

Midfoot Shanks

Companies have a variety of proprietary names for their midfoot shanks, which separate the forefoot from the rearfoot of the shoe. It allows the designer to cut away part of the midsole, and replace it with a hard, lightweight hytrel plastic, reducing the weight of the shoe, while enhancing torsional rigidity. Asics uses two *trusstic* plates, with a space between them, so that the midstance and foot sink towards the ground, enhancing the windlass effect of the shoe. (See the Asics website for more info on the *Space Trusstic System*.)

Exceptional Heel Counter

The formed thermoplastic cup inside the heel portion of the upper of the shoe is the most important structural part of any piece of footwear. All control begins and ends with this feature. Some models have plastic or molded collars added externally to the heel counter that reinforce it and/or hook into the medial posts; these are deemed worthy of the label exceptional! Rarely does a running shoe make it on the wall without this feature. Some are bombproof, but most are very good.

Decoupled Heel

One of the early design efforts to slow the rate of pronation was to put a slice through the outsole and a bit of the midsole of a runner at an acute angle to allow the heel to decouple upon heel strike, thus reducing the lever arm at that moment. The outsole and midsole would widen out, creating less lateral collapse of the midsole, and a broader base of support. This was a revolutionary feature which, though it has evolved, is around in some form in all technical running models. Adidas has taken the concept the furthest by almost hinging this section so that it truly decouples at heel strike.

Foot Bed

This term refers to the insole of the shoe, which, though made with numerous types of materials, essentially acts as a comfortable liner for the shoe. Rarely does it enhance support, and it is often replaced by an off-the-shelf arch support or a custom orthotic. Almost all of the better athletic

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shoes have this removable insert. Manufacturers should dedicate more time and money to making this a useful, supportive accessory.

Foot Frame/Cupsole

In shoes which are designed for court or lateral activity, the midsole is molded up the side of the foot at key stress areas to aid in keeping the foot over the sole plate, decreasing the risk of inversion sprain and lateral breakdown of the shoe. The feature is found in court shoes (when made properly) and in cross-trainers.

Saddle

This is the area of the upper that wraps the arch, the portion of the shoe that the eyelets are cut into. Often the company logo is placed here and sewn in such a way to enhance the midfoot support of the shoe. Plastics are sometimes used to add substance to this region, but at the cost of fit. Some are using cables, hooked into the eyelets to gain support as the shoe is laced up.

Toe Spring

The amount of upward tilt of the toe of the shoe, internally defined by the last used to create that shoe. The greater the toe spring of the shoe, the more the toes are dorsiflexed. The toe spring is often part of the overall *rocker profile* (see below) of the shoe.

Rocker

The rocker is defined by the amount of taper in the midsole. Forefoot rocker is made by tapering the midsole at the ball of the foot, thinning it out distally. The apex of the rocker can be set at different points, measured as a percentage of the length of the shoe. A forefoot rocker set at 60% of the length from heel to toe will affect the pressure relief at the metatarsals differently than one set at 80%, or closer to the toe of the shoe. The same principle applies to rearfoot rockers in reverse, and effects different biomechanics.

Rocker Profile

The rocker profile of a shoe is a combination of rocker tapering and toe spring. This is the usual term used to describe most off-the-shelf running and walking shoes.

Drop

The drop of a shoe is the difference in height of the between the heel and the ball of the foot.

Ramp angle

The ramp angle of a shoe is the angle that the shoe pitches forward from heel to toe.

Stack Height

The stack height of a shoe is the height from the bottom of the shoe sole to the bottom of the foot in the shoe. That is, the addition of the thickness of the outer sole, midsole, and insole.

Shoe Type Definitions

Motion Control

To be deemed worthy of the term motion control, the shoe should have at least six of the following ten features:

- 1. Thermoplastic Heel Counter
- 2. Medial Midsole Plug
- 3. Torsional Rigidity
- 4. Straight Last
- 5. Motion Control Collar
- 6. External Arch Support
- 7. Medial Strapping/Upper
- 8. Broad Sole Plate
- 9. Firm Midsole
- 10. Heel Counter Medial Extension (See article after the charts for in-depth description of these terms.)

Numbers (1), (2), and (3) are virtual necessities to classify a shoe as "motion control". The label of motion control is difficult to achieve, and rarely given to any shoe other than a running shoe. The reason is because running shoes are designed to take issue with the biomechanical peculiarities of the heel-toe gait pattern under high impact. Problems resulting from misalignment due to excessive pronation during this gait pattern are well-documented (ex. patello-femoral syndrome, plantar fasciitis, etc). Shoe designers and biomechanists are very conscious of foot type when building these shoes, so motion control is usually front and centre.

With cross-trainers, tennis shoes, basketball shoes, and others, sport specific attributes are more important to the designer than are the mechanical or foot specific features. Therefore, true motion control is a rare commodity outside of the running market. More pronation control walkers and running oriented cross-trainers will likely be introduced in the near future as the population ages, and consumers become more cerebral about even the most recreational of purchases: their sneakers.

Stability

I define stability as a relatively straight lasted shoe that has many of the qualities of a motion control shoe, with torsional rigidity, a strong heel counter and firm midsole. Where it differs is that it is less pronounced in its medial posting. Instead of a plastic plug or post, it has only dense medial foam (eg. Asics *Duomax*). In other words, a pronation control shoe without the exclamation mark! The designers clearly have the excessive pronator in mind, but are trying to create a nicer ride without too much control. Some feel that the chance for lateral midsole collapse is reduced because the difference in density of the midsole, from medial to lateral, is less than in the classic motion control shoe.

Many orthotic providers are reluctant to put their orthotics in shoes with medial posting. The denser medial column may influence the correction of the orthotic, and with extended wear, cause premature collapse of the lateral rear midsole. This fear of lateral collapse may be as much from design influences on the rearfoot, aimed at slowing the rate of pronation as from the medial posting. See the attached article for more on lateral heel design evolution.

Neutral Supportive

In this style, the last shape and firmness of the lateral midsole column is similar to that found in most stability shoes. The difference here is there is no dense medial midsole material of any kind. The entire midsole is quite firm, to act as a supportive foundation for an orthotic or the impact of a heavier/harder heel strike.

Neutral supportive is the most common referral category for orthotics, as the platform is the same on both sides. One thing to keep in mind is that if the lateral column is soft, then the shoe may collapse to the outside, regardless of the presence of any denser medial posting. Firm lateral columns made of dense EVA or, even better, polyurethane may be the answer. So if the orthotic provider needs a little extra from the shoe some medial posting in the right shoe may prove useful. Just ask that the lateral midsole be appropriately firm to last the life of the shoe.

Neutral Cushion

Slightly more curve lasted, but not necessarily more torsionally flexible. The midsole is softer than a neutral supportive shoe and has a more squishy, bouncy ride. An orthotic wearer who has some shock attenuation issues may do better here than in a neutral supportive model.

Cavus Flexible and Ultra Cushioned

A forgotten category! It seems that torsional flexibility in the midfoot and marshmallow soft midsoles are a thing of the past, possibly because designers think that torsional flexibility does not necessarily help a rigid cavus foot to pronate. Therefore, they support it into the midfoot and give it lots of shock attenuation. That would mean one should fit that cavus foot in a standard cushion shoe above.

Minimalist Running

A minimalist running shoe has a combination of features that differentiate it from a traditional runner.

- 1. The ramp angle, or drop, is less than 10 mm. Drops are usually 4-8 mm, but can be as low as 0 mm!
- 2. Lightweight These shoes are lighter weight, much of that due to the reduction in midsole.

Minimalist (Natural)

This minimalist category is defined by its torsional flexibility and lack of supportive upper. The midsole flexes in all planes, and the heel counter is often non-existent.

Minimalist (Traditional)

This minimalist category is defined by its traditional torsional rigidity and supportive upper. The midsole doesn't flex in all planes and the heel counter is firm.