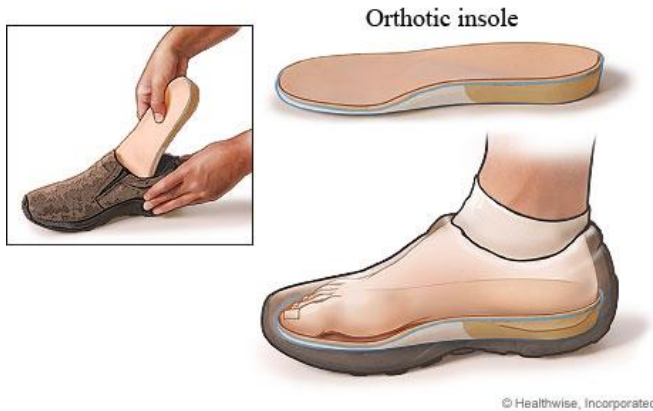


Considerations When Selecting & Fitting Shoes with Orthotics in Hand

A basic guide to fitting shoes with custom orthotics (with a focus on athletic shoes)



Shoe Size (Length and Width)



When fitting a full-length orthotic device in an athletic shoe, the shoe size should be the same as normally used by that individual. Many patients assume that the shoe needs to be bigger than normal but are unaware that the insole of the shoe comes out and is replaced by the custom orthotic.

The length should permit the width of a thumbnail between the end of the longest toe and the end of the shoe when the patient is fully weight-bearing. Note that the labelled size and width of any shoe is simply a guideline. Each shoe must be fit individually. When there is any form of metatarsalgia (neuromas, arthritis, sesamoiditis, etc.) the healthcare provider should provide a note requesting a roomy toe box.

Removable Footbed

If the orthotic has a full-length cover, the shoe's insole should be removed and replaced with the orthotic. If the orthotic is sulcus or 3/4 length, it may be possible to keep the shoe's insole in the shoe. If this causes the heel to sit too high, consider cutting the shoe's insole in half - leaving only the front portion of the cut insole in the shoe. The orthotic can be placed into the rear of the shoe, overlapping the cut insole by approximately an inch thereby creating a relatively seamless orthotic transition from front to back.



Closure

For maximum support the shoe should fully cover the instep and be secured with laces. The choice of alternate closures like Velcro or even a slip-on style should only be suggested if the individual is unable to manage laces. Given that any custom insert



can cause the heel to slip, a loop lacing technique (2) may help to secure the collar of the shoe around the ankle. There are numerous lacing patterns available to reduce pressure across a variety of locations on the foot. Try a few of the patterns pictured here!

Heel Counter

The centerpiece of the stability of the shoe and the primary housing for any orthotic device begins with the heel counter - the enclosed plastic heel cup that stabilizes the orthotic and the entire rear foot of the shoe. It should be made of thermoplastic and be hard to the touch.



Torsional Rigidity



This is the ability of the shoe to manage the dishrag test. One should not be able to grab the front and back of the shoe and twist it. This rigidity is often accomplished by way of a mid-foot shank in the midsole. The resultant firmness helps to provide solid footing for any orthotic device.

Rearfoot Depth

Some orthotics may be thicker in the rearfoot and may also be accompanied by a heel lift. This combination requires the rear foot of the shoe to be very deep so that the heel feels solidly encased in the rear foot of the shoe.

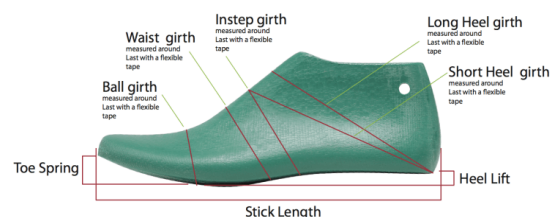
Heel Toe Offset/Drop



Heel offset or ramp of the shoe is the difference in height of the midsole/platform from heel to toe. In most footwear, the heel sits higher off the ground than the forefoot. In running shoes this offset is approximately 10 mm. It can range from 0 to 13 mm and should always be considered in the orthotic referral. Those individuals who are equinus generally benefit from a higher heel offset.

Shoe Last/ Mold

Shoes are made on different lasts or molds. The last is a design concept that goes beyond just size and width. The last dictates all of the desired measurements of a foot that would in theory fit in



that particular shoe. If the shoe is a good fit for the foot and orthotic, the shape of the chosen shoe should be an obvious match. Reach into the shoe and make sure that the orthotic is sitting right at the back of the shoe. If the shoe and the orthotic are destined for each other the insert should be flat and level from heel to toe.

Running Shoe Categories

1) Stability

Some running shoes are made with two distinctly different densities of material in the midsole. The medial aspect of the midsole/platform has a more dense material designed to limit the amount of over pronation at midstance. This type of shoe is rarely matched with an orthotic device. In certain cases (ex. post tibial tendon dysfunction) it is used in combination with an orthotic to provide maximum support.

2) Neutral

Neutral shoes are the most common shoes to pair with an orthotic device because the platform is the same density both medially and laterally, thus allowing the orthotic to do its job as designed.

3) Neutral Supportive

This is the most commonly referred style of running shoe for an orthotic device. It has a neutral density midsole, but unlike the neutral category above, the midsole is generally firmer. The shoe also has a wider base thus providing more ground contact and enhanced overall support.

4) Stiff Forefoot Rocker

This has become an increasingly more common shoe category. It means that the shoe is inflexible from heel to toe as well as rockered in the forefoot. The stiff rocker is particularly useful in managing forefoot pathologies including post-surgery candidates. The stiff rocker helps to splint the metatarsal area and thereby reduce forefoot pressure and subsequent shearing forces. It can also be used to manage plantar fasciitis, Achilles tendonitis and some calf related issues. The reason for this relief is the subject of numerous ongoing studies.



Casual Shoes, Dress Shoes and Sandals

Other footwear like casual shoes would follow many of the same principles outlined above except that some do not have removable footbeds and may only accept a sulcus length orthotic. Women's dressier styles often have a bit of a heel and less support and typically will only accommodate a small dress orthotic that can drop in most any shoe. Casual shoes and even sandals with removable insoles and decent support for women will also follow the basics of this guide. Men's casual and dress styles usually have a full lace option and removable insole and hence would follow the same principles for orthotics.

The Foot - Orthotic - Shoe Relationship

The most important thing to consider is that the foot, the orthotic, and the shoe must come together as a collaborative team. The foot will have no success if the orthotic and the shoe do not complement one another.

Fit Rules over Everything

Everything must fit.

The shoe...the orthotic... the foot... the activity...the budget... and even the color.

If the shoe fits, BUY IT ☺

For more information, you can visit our website.

Inside the 'Shoe Update', available on our websites, you can find specific information about shoe construction, different styles of shoes, and more about orthotic fit considerations.

<http://www.ladysport.ca/>

<http://www.fitfirst.ca/>

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