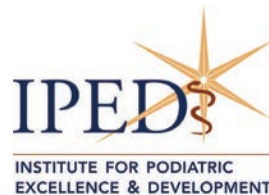




Orthotic Prescribing Update

These tips will help improve patient outcomes.

BY RICHARD T. BRAVER, DPM



Tips from the Trenches features practice management issues, and is written exclusively for PM by members of the Institute for Podiatric Excellence and Development (IPED). IPED's mission is to motivate, inspire, and synergistically bridge the gap between students, residents, new practitioners, and seasoned veterans in the field of podiatric medicine. They are committed to the idea that mentors with passion to share and mentees eager to learn make a powerful combination that allows IPED to bring and renew a full life to podiatric physicians, their practices, and their well-being throughout the U.S. and beyond. Visit www.podiatricexcellence.org.



Figure 1: Temporary orthotic fabricated in office

counter “orthotic”. Most will say it was comfortable and of some help, but did not induce a significant improvement.

Obviously, if patients had significant improvement, they would most likely not be at your office. The patient’s over-the-counter inserts should be examined and, when appropriate, the podiatrist should offer the patient a more suitable over-the-counter insert or continue with the existing device. In my practice, we fabricate “temporary orthotic devices” (Figure 1), which include a vinyl-covered foam inlay. We glue skived felt padding to its bottom to reposition the foot.

125

For the most part, orthotic impressions are now taken via computerized scanning.

Podiatric sports medicine, care of injuries, and pain resolution have evolved and have been greatly enhanced with the use of newer and different types of orthotics. A large percentage of orthotic impressions are now taken via computerized scanning, which speeds up the process and saves on shipping costs. In addition, there are newer materials available to allow functional orthotics to fit better into dress shoes, and sport shoe orthotics that provide optimal customization for individual patients’ needs. Progress has definitely accounted for greater convenience and improved patient outcomes, but it’s helpful as well to

review some of the basics to keep in mind when prescribing orthotics. Here are a few tips:

Pre-Fabricated/Temporary Orthotics

It is very important to provide your patient with pre-fabricated or over-the-counter orthotics prior to dispensing custom orthotics. This has been well-addressed in a previous *Podiatry Management* article by Hal Ornstein, DPM in September 2017. Many patients who present to our office have already worn an over-the-

The forefoot padding/posting may include various accommodations for the patient’s foot problem. Patients then return once or twice until substantial relief is obtained. The patients are told that this temporary orthotic is a template for the more durable custom orthotics. Temporary devices typically have a wear life of six months. The patients may return at six-month intervals for newer temporary devices, but most patients prefer a more “permanent orthotic”, so custom orthotics are offered.

Continued on page 126



Orthotic Prescribing (from page 125)

Injury-Specific Orthotic Modifications

1) Heel Pain

All custom orthotics include a 16 mm deep heel cup. For hyperpronation in athletes, include an extrinsic extended forefoot varus “runner’s wedge.” (Figure 2) For cavus foot types, the extrinsic forefoot posting includes a first metatarsal head cut out with varus posting of the second through fifth metatarsals. For dress shoes, order thin carbon graphite orthotics (Figure 3) with intrinsic rear foot and intrinsic forefoot posting along with a deep heel cup. For heel pain, the women’s dress shoe orthotics have a shallower heel cup but are enhanced with a hole in the actual heel of the shell. (Figure 4) A deeper heel cup helps to keep one’s fat pad “encapsulated” so that the plantar fat pad of the heel will naturally cushion the calcaneal tubercle and sensitive nerve areas.

2) Morton’s Neuroma

For those with neuroma symptoms who wear athletic or accommodative shoes, choose full-length orthotic devices, including forefoot varus posting for hyper-pronated feet



Figure 2: Full length sports orthotic with runner’s wedge



Figure 3: Thin carbon graphite men’s dress shoe orthotic

allow for application of the self-sticking metatarsal pad to be added to the top cover. The more pressure that can be displaced away from the forefoot and into the arch, the more successful the orthotic will be in reducing forefoot pains. Additionally, the patient should be advised of appropriate shoe options, including those with a wider forefoot.



Figure 4: Low profile women’s dress flat shoe orthotic

be ordered. Otherwise, the device is similar to the previously mentioned athletic devices. Dress shoes orthotics for men should include a beefier extrinsic rear foot posting and increased internal forefoot posting. For women’s dress shoe orthotics, there should be thinner external rear foot posting. Advise your patients to wear their sports orthotics and supportive shoes with firm heel counters as much as possible until pain is resolved.

Women who wear pumps benefit from a thinner sulcus length orthotic with an extended flexible forefoot and flexible heel top cover.

and first metatarsal head cut-outs for cavus feet. With orthotic use, the changes in foot mechanics often reduce the patient’s neuroma symptoms. A self-sticking metatarsal pad is typically added to the top cover of the orthotic in the form of either felt or foam material. If the patient does not like the feel of the metatarsal pad, it may easily be removed or re-positioned.

Women who wear pumps benefit from a thinner sulcus length orthotic with an extended flexible forefoot and flexible heel top cover. These types of orthotics are intrinsically posted at the forefoot and

3) Morton’s Foot/Second MTPJ Capsulitis

For athletes, a full length orthotic device with extrinsic runners wedge forefoot extension should be fabricated, including a second metatarsal head cut out, and filled with a soft foam padding. For men’s dress shoes, a metatarsal pad may be added to the top cover as previously prescribed. For women’s dress shoes, a small second metatarsal head cut out may be added to the sulcus length top cover.

4) Posterior Tibial Dysfunction

For athletes, significant rear foot and forefoot extrinsic posting should

5) Shin Splints

Sports shoe orthotics in runners should include increased extrinsic forefoot varus posting. During running, there is increased hip abduction, increasing varus positioning of the foot. In addition, sports that involve pushing off the forefoot require correction at the forefoot. Therefore, increased extrinsic forefoot varus posting should be utilized for those with hyper-pronation. Cavus foot types will typically receive a first

Continued on page 127



Orthotic Prescribing (from page 126)

metatarsal head cut out with posting of metatarsals two through five in varus. Sometimes, it may be necessary to have valgus posting along the entire lateral edge of the orthotic, depending on the patient's area of shin pain. If the shin pain is only present during sports activities, these patients may not need dress shoe orthotic devices. However, patients who walk/stand much of the day (such as students, postal workers, waiters, and waitresses, etc.) with shin pain may require a second pair of orthotics for their dress/work shoes.

Orthotic Materials

Shell materials of orthotics should be adjusted to the patient's weight and physical activities. This includes firmness and/or flexibility of the device. Newer shell materials include fiberglass composite technology. Shock-absorbing materials may

be added to the plantar area of the arch or under/over the top cover.

Advantages of OTC and Custom Orthotics

The podiatric specialist can tremendously help his/her patients by offering immediate care with in-office OTC devices. Once improvement has been noted, it is often prudent to recommend custom orthotics. Have the athletic patient return in three weeks after dispensing for re-evaluation of their progress and to check comfort levels with their new devices. At that time, discuss the need for custom orthotics for their dress shoes if that is what they wear throughout the day.

Patients will have longer lasting results with fewer recurrences of their malady when they are wearing orthotics the majority of the day. In addition, from a practice success standpoint, the podiatric physician has kept the patient active, helped the patient avoid surgery, and also

accommodated the patient with an OTC device as well as multiple pairs of custom devices, which can be worn comfortably in different types of shoes.

It is advisable to have a sticker or imprint with the practice name and telephone number on the bottom of the orthotic or on the top cover. Lastly, once patients have been completely satisfied, do not forget to ask them to send you their friends, family, and co-workers. They will gladly oblige. **PM**



Dr. Braver is director of Active Foot & Ankle Care, LLC and has lectured nationally and internationally on sports medicine and surgical topics. He is board certified in Reconstructive Foot & Ankle Surgery. He serves on the scientific advisory board of Runner's World Magazine. He is team sports podiatrist for several universities and sports teams in New Jersey.