

## Orthotics Q&A: Key Insights On Prescribing Orthoses For Dress Shoes And Sandals

- [Guest Clinical Editor: Lawrence Huppini, DPM](#)

With summer in full swing, more and more patients are moving from the rigidity of dress shoes into the comfort of sandals. Fitting orthotics into both types of footwear has its own unique challenges as the sizes of each vary and the amount of control is also different between shoe types. With this in mind, our expert panelists offer pearls on how they alter orthotic prescriptions for dress shoes or sandals.

### **Q: What are important concepts to keep in mind when prescribing orthoses for women's dress shoes?**

**A:** Lawrence Huppini, DPM, says patient education is of paramount importance when prescribing orthotics for women's dress shoes. He explains to patients that they will need smaller orthotics for dress shoes than they would for athletic footwear. Dr. Huppini also ensures patients understand that smaller orthotics provide less control and there is no guarantee that the orthotics will fit in their current dress shoes.

Initially, Dr. Huppini says he will prescribe full-sized orthotics that fit into walking and athletic shoes. If the first pair fits, he orders a smaller pair for the dress shoes.

However, he tells patients at the outset that they will likely have to purchase new dress shoes to accommodate the orthotics and gives them a list of fashionable shoes that may work with the orthotics.

Josh White, DPM, says one can make dress shoes more comfortable by adding almost any additional arch support or forefoot cushioning. Most importantly, shoes need a closed heel and toe, a broad midfoot (shank) and a footbed that you can remove even if it is glued in, according to Dr. White.

When it comes to feet that are not significantly pronated, Dr. White says one can often achieve optimal results with prefabricated, carbon graphite devices.

"There is often minimal difference in functionality between prefab and custom molded devices given the constraints posed by the shoes," notes Dr. White.

"Prefabricated orthotics offer a ready 'what you see is what you get' approach that can prevent patients from spending a lot of money on devices that wind up not fitting in the shoes they were intended for."

The height of the women's shoe is probably the most important issue for Bruce Williams, DPM, who says custom foot orthotics are less likely to have much of an effect on a woman's foot if the heels are higher.

### **Q: What is a typical prescription for a woman's dress pump?**

**A:** All three panelists prefer thin devices and two of them prefer using graphite materials.

Dr. Williams says the thin device should have little or no heel. Sometimes, he won't even use a topcover. According to Dr. Williams, the majority of the control comes from posting just the forefoot. Usually, Dr. Williams uses a first ray cutout and often will post metatarsals two through five in a slight valgus position in relation to the rearfoot.

While graphite tends to crack under pressure when it is used in orthotics for athletic shoes, Dr. Huppini says the thinness of the material is an advantage in prescribing orthotics for women's pumps. He adds that he will prescribe a shallow heel cup and normal width with a vinyl cover on the sulcus.

Initially, Dr. White also uses prefabricated, thin carbon graphite dress devices.

He notes such orthotics have a very low heel cup and a narrow midsection. In addition, Dr. White points out they incorporate a pitch for high heels and a 1/16-inch cushioned forefoot extension if space permits.

When prescribing custom devices, Dr. White recommends sending casts to the lab along with the type of shoes in which the patient plans to wear the orthotic in order to get the best results.

**Q: What role do you find that orthotic sandals play in orthotic therapy?**

**A:** When custom orthotics do not resolve heel pain, Dr. White suggests orthotic sandals will give patients “superior cushioning and support.”

“Sometimes merely minimal barefoot walking in the house is enough lack of support to prevent heel pain from resolving,” says Dr. White. “Their ease of use and superior support make orthotic sandals a very viable complement to regular biomechanical care.”



*Dr. White says sandals offer greater width for increased support and more depth for increased cushioning.*

For Dr. Huppín, orthotic sandals are an option when patients wear regular orthotics less frequently in warmer weather. He uses Bite® sandals, noting the orthoses are made to fit perfectly. The orthoses can be removed for adjustment and patients can move the orthotics into other sandals, according to Dr. Huppín.

“In our practice, we find that patients love the sandals,” notes Dr. Huppín. “They help provide better clinical outcomes and offer a boost to the bottom line of the practice as well.”

Dr. Williams is a strong proponent of using newer orthotic sandals, which allow patients to fit their own custom devices into the sandals as opposed to using devices that are built into the sandal’s shoe last. He says both he and his patients find the freedom of such sandals “refreshing” and the more choices in sandals that women have, the more likely they are to wear the orthotics. Patients who cannot afford another pair of orthotics can buy sandals from Dr. Williams or another shoe store.

**Q: How do you change your orthotic prescription for sandals relative to shoes?**

**A:** Dr. Huppín says orthotics in sandals usually provide less control than in shoes due to the lack of a heel counter in sandals and some limitations in the size of the orthoses in the sandals. The size of sandal insoles likewise limits the depth of the heel cup and he notes deep heel cups or orthoses with a medial flange will not fit into most sandals.

“This should not limit your use of orthotic sandals, but both the physician and patient should be aware that there will usually be less control so patients will need to adjust their activity accordingly,” explains Dr. Huppín.

However, as Dr. White argues, sandals offer greater width for increased support and more depth for increased cushioning. For sandals to be compatible with orthotics, he says sandals must have a removable footbed that one can replace with the custom orthotic. Dr. White says this will permit the use of full-length devices as opposed to using devices that typically end proximal to the metatarsal heads in a dress shoe.

Dr. Huppín also notes that sandals lack heel counters, which may cause eversion of the calcaneus. In turn, this may result in increased force under the medial arch, leading to an increased probability of arch irritation in a sandal orthosis compared to an orthosis in a shoe. When prescribing sandal orthoses, Dr. Huppín says one can prevent arch irritation by using a standard rather than minimum cast

fill and avoiding an inversion technique.

If you use a medial heel skive in sandal orthoses, Dr. Huppin suggests limiting it to a maximum of 4 mm. As he explains, with a larger skive, there is more potential for the foot to slide off the orthosis, causing the lateral edge of the heel cup to irritate the foot.

If it was a shoe, one could use a deeper heel cup to compensate for this, according to Dr. Huppin. However, since heel cups in sandals are limited to about 14 mm, Dr. Huppin says one should avoid using medial heel skives larger than 4 mm.

On a rare occasion, Dr. Williams will decrease a heel lift in a sandal but as long as the sandal will accommodate the custom orthotic, he says he would not alter his prescription.

*Dr. White is a Diplomate of the American Board of Podiatric Orthopedics and Primary Podiatric Medicine.*

*Dr. Williams is in private practice in Indiana. He is also a Fellow of the American Academy of Podiatric Sports Medicine and a Fellow of the American College of Foot and Ankle Surgeons. He is a consultant to Tekscan.*

*Dr. Huppin is an Adjunct Associate Professor in the Department of Applied Biomechanics at the California School of Podiatric Medicine at Samuel Merritt College. He is also the Medical Director for ProLab Orthotics. Dr. Huppin can be reached at [lhuppin@prolab-usa.com](mailto:lhuppin@prolab-usa.com).*