



## Insoles, Orthotics & Custom-Made Orthotics

### **Orthotics can accommodate and/or correct foot problems if the fit is appropriate:**

*This handout and the ones mentioned at the end all complement each other.*

**Warning:** If someone is born with a flat foot, the body has already adapted to this before birth. Trying to create an “artificial” arch with an orthotic may cause pain and damage!

**Reminder:** When using orthotics, you need to remove the shoe's own insole first!

### **It can be confusing to know what support or correction you need in your shoe(-s)!**

**1. Insoles** are pre-fabricated, flat, and can be cut to the size of the insoles that are already in the shoes. They vary in thickness and softness. They are usually placed on top of the build-in insole to create more cushioning. This works nicely for high arches that get the best support from supportive, soft, flexible and light-weight insoles.

**2. Orthotics** are great when the foot has a diagnosis that requires the foot to stand when the information for the orthotic is gathered. *Health insurance sometimes pay for A and B.*

- **A.** Standing on a surface that shows the impression of the weight-bearing foot can be used for diagnoses that require the orthotic to make accommodations of the weight-bearing sole on the foot. For instance, such an orthotic can lift the ends of toes that otherwise point into the soles of the shoe when standing. The orthotic is fabricated by a machine based on the foot impression.
- **B.** A surface, that electronically measures the location and severity of various pressure points, when the foot is standing on it, can also produce an orthotic by a machine where the pressure points of the standing foot are considered.

**3. Custom-made orthotics with a plaster cast of the foot in a neutral dangling position** are **ideal** for feet that have a normally rounded arch when dangling in the neutral position, but **over-pronate in the standing position with a flattened arch**. The custom-made orthotic is hand-fabricated according to the shape of the plaster-cast.

**Custom-made orthotics that mimic the foot's arch in a neutral dangling position are the surest way to correct over-pronation that can cause the following, if left untreated:**

- The over-pronated unstable foot can contribute to structural changes over time, like hammer-toes and bunions. Such related damage may be prevented.
- Pain in the ankles, knees, hips, and lower back joints, associated with an unstable subtalar joint and inward turning ankle, may be prevented, reduced, or stopped.
- **Plantar fasciitis** should be corrected by this orthotic as it corrects the flattened arch; elongated foot; pulling on the plantar fascia; inflammation by the heel; and heel pain, which is the tell-tale sign of plantar fasciitis. If plantar fasciitis is the first symptom and it is corrected, maybe the other problems will never start.

*Health insurance does not pay for this important custom-hand-fabricated orthotic.*



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**4. “Pre-fabricated, pre-fitted, and test-walked arch supports” are fabricated for certain diagnoses; NOT specifically for the shape of your own foot.**

Some stores sell pre-fabricated arch supports for different diagnoses. If we look at a diagnosis of **plantar fasciitis**, for example, ***it is truly difficult to know if the pre-fabricated arch support for this diagnosis has the proper fit!***

During “the fitting” an ink image of the sole of the foot when the customer is standing will show the flattened, over-pronated foot due to lack of the arch; however, it does **not** show the shape of your arch in a neutral dangling position. For the arch support/orthotic to be able to correct the over-pronation and plantar fasciitis the surest way, it must have that shape. The explanations below show why you will not be able to know right away if the pre-fabricated arch support has that perfect fit:

In the “test walk” for plantar fasciitis, the hope is that the arch support/orthotic will stop your heel pain as well as pain in the joints of your ankles, knees, hips, and lower back. However, **this is really not possible to test in such a short time.**

**Heel pain:** If your heel pain is only present first thing in the morning when you stand and take a few steps, it should not be present, at all, when you take the test walk. Also, if the heel pain is present throughout the day, it will not magically go away as soon as you use an orthotic; even if its shape were perfect. The **inflammation of your plantar fascia by the heel causes all or part of the pain.** The pain will not resolve itself until the over-pronated foot, the flattered arch, the elongated foot, the pulling of the plantar fascia, and the inflammation have been resolved. This process takes time.

**Joint pain:** The associated joint pain up to your lower back is created due to misalignment as the heel of an overpronated foot turns inward. This also takes time to resolve.

**Other diagnoses:** If pre-fabricated arch supports or orthotics for other diagnoses offer instant results that can be measured, it is easier to know if the fit is good.

### **3-page online list of businesses that sell orthotics, as of late 2021.**

I made a Google search for “custom-made orthotics in Tucson” and scrolled down to “Orthotics & Prosthetics Services near Tucson”. ***It did not distinguish between pre-fabricated, electronically-produced, impression-produced, or manually-fabricated orthotics.***

Arizona Limb and Brace does use plaster-casting. This is a true custom-made orthotic that is ideal for over-pronation and planter fasciitis.

**Call around and find out how each business can help you and what their fees are.**

See the handouts on *\*Shoes and Shoe Modifications*, *\*Plantar Fasciitis*, and *\*The Structure of your Foot*.