

ARE YOU PUTTING YOUR BEST FOOT FORWARD?

By: Dr. John A. Papa, DC



Much like tires on a car give a vehicle a foundation of support for stability and performance, our feet function to do the same for us. When tires get old and worn, and don't offer the same support and stability that they once did, we simply replace them. Unfortunately we cannot replace our feet! Our only option is to give them the correct mechanical support so that they can continue to function as they were intended to. Learn more about how important your feet are for structural health and how custom orthotic therapy can alleviate many problems caused by faulty foot mechanics.

The feet are an individual's contact points with the ground, so how they support the rest of the body is critical. Our feet have nearly 100 individual working parts, which all have to function together when we stand, walk, run and jump to provide proper stability and balance. When a small problem develops in our feet, the subtle changes in the way we walk can cause a chain reaction of adjustments in our posture and walking mechanics. These changes can put stress on joints in our feet, and higher up in the body, and can lead to more

serious problems.

Custom orthotic therapy allows one to correct faulty foot mechanics by normalizing motion and offering shock absorption. Orthotics are mechanical aids that fit into your shoes as comfortably as an insole – and they have the advantage of having been custom made from precise imprints of your feet. Orthotics work on your feet much like glasses work on your eyes – they decrease stress and strain on your body by bringing your feet into proper alignment. This helps rebalance your feet and reduces pain and discomfort by enhancing your body's natural movements.

Some individuals may experience obvious symptoms of faulty foot mechanics which may include but are not limited to: localized foot pain, bunions or hammer toes, arch or heel pain, leg, ankle, hip, and knee pain, and back pain. Others may not have obvious symptoms of faulty foot mechanics but may still benefit from orthotic therapy to prevent long-term problems. This may include individuals who spend a good portion of the day standing or walking on hard surfaces, individuals with a family history of foot related problems, and individuals who participate in sports such as tennis, golf, basketball, volleyball, or running on a regular basis. Faulty foot mechanics arise for different reasons ranging from genetic predisposition, to the normal aging process where ligaments, muscles and joints fail to support our bodies like they once did.



Heel spurs and plantar fasciitis are a very common cause of heel pain. These problems usually occur in pronated feet (feet that roll inward). Pronation forces the heel to strike the ground abnormally, and places abnormal stress on the heel and plantar fascia (the soft tissue at the bottom of the foot), resulting in pain that will become progressively worse. A custom made orthotic is constructed to allow the heel to strike the ground in the correct manner by minimizing pronation, cushioning the heel, and supporting the arch. This is just one example of how custom orthotics function to normalize faulty mechanics and foot function. Custom orthotics can also help with other painful conditions such as foot pain caused by bunions or hammer toes, shin splints, knee pain, hip pain, and low back pain. Many athletes find custom orthotics helpful for increasing athletic efficiency, and protecting the heel, arch, and forefoot from the unnatural and increased stresses that sporting activities produce. Older individuals who have experienced the effects of aging on the body may find that custom orthotics can keep the foot from turning and

twisting while walking, making each step secure and pain free. In diabetics, pressure sores and chronic

painful areas are best treated with supportive custom made orthotics featuring modern materials that can eliminate pain, shield and protect painful areas, and decrease the chance of ulcerations occurring.

Prescribing and dispensing custom foot orthotics for an individual is usually a three-step process. The first step is a *history* and *physical examination*, which gathers information about occupational, recreational or sporting activities. Pain symptoms are investigated through a physical exam involving muscular assessment and range of motion. A postural exam is also performed to assess overall alignment. *Computer analysis* can help identify what your feet are doing at every part of the walking cycle, and give additional information about the mechanical functioning of your feet. *Foam impressions* or *plaster casts* of your feet allow for specific imprints of your feet to be sent to the orthotic lab, detailing information about your arch and heel specifications. A comprehensive and systematic approach to custom orthotic therapy yields excellent results and high consumer satisfaction.

While simple, commercially made devices such as heel cushions, or shock absorbing insoles for shoes can be purchased over-the-counter in drug stores or other retail establishments, they are made for the general public and may not be addressing the specific needs of your feet. The most effective orthotics are custom-designed devices specifically crafted to meet the needs of the particular individual. Mechanical dysfunction in our feet has the ability to put undue stress on other parts of the body, predisposing us to wear and tear and injury. Do not forget that the proper functioning of your feet is paramount in ensuring structural health, and that correction and prevention is key in ensuring that you are indeed putting your best foot forward!

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