Flat Feet and Orthotic Inserts

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The flat feet condition is often an overlooked limitation of the lower extremity. Many people may go through their lives without knowing that they have an abnormal arch under their feet, affecting the way they walk. A low arch under the feet is highly correlated with having worse shock absorption at the knees (Nakijima et al., 2009). In addition, it is well documented that flat feet do not perform well as dynamic stabilizers when compared to higher arched feet (Kim et al., 2013). A common method of treating a low arch is to use orthotic insoles inside the shoes. By raising the arch within the shoes, the arch at the feet is mechanically elevated. At the same time, the angle of the ankles when the feet strike the ground while walking is also changed (Chen et al., 2010).

According to a study that tested the effects of orthotic insoles on college students, gait patterns were improved amongst subjects due to an improved center of gravity (Seo et al., 2014). With all these studies done on treating flat feet with orthotic insoles, it is evident that orthotic insoles do seem to have a general positive effect on patients with flat feet by reducing pain. However, what about the long-term effects of orthotic inserts on the muscles and bones in the feet?

This paper will attempt to analyze the long-term effects of wearing orthotic insoles. While wearing orthotic inserts do seem to be correlated with pain reduction in patients with flat feet, there is a lack of research done on the long-term effects of custom insoles (Reinking et al., 2012). Out of most of the research findings, follow-ups with patients after being treated with orthotic insole only go up to twelve months after. Even after a year later, there is no considerable change in pain or foot posture when compared to the short-term effects of orthotics insoles (Andreasen et al., 2013). Research about the physical changes in the musculature of the feet after using insoles is also lacking. If the
insoles were to be removed, would the patient’s gait pattern be fixed or would it revert back to being pronated? Once the permanent effects of wearing orthotic inserts is known and tested, there will be a better understanding of using insoles to treat patients with flat feet.

Reflective note: Flat feet is a condition in which the natural arch under the feet is lower than normal. It can lead to having a worse shock absorption mechanism, causing pain in other areas of the body. I used the Scholar OneSearch from the Northeastern University library’s website to obtain all the peer-reviewed journals for writing this abstract. The terms “orthotic insert” or “insole” discussed in this paper refer to inserts that are put inside regular shoes in order to increase the support of the shoe mainly by increasing the height of the arch. I was not able to find any call for papers within this specific field about flat feet. As a result, this abstract is more of an answer for a general call for papers.
References


