## ARTICLE: "Forefoot Pain—The Other Side of the Fence"

This week we are going to switch from our topic last week (heel pain) to pain in the front of the foot or forefoot pain and discuss a few conditions which cause this painful condition. Forefoot pain can result from mechanical forces as well as from structural flaws and several items in between. Therefore it is important to discuss this condition as a grouping of conditions in order that one understands that it is not all caused from the same condition.

One of the most prevalent causes of forefoot pain is entirely avoidable and preventable, that is the pain of ill fitting shoes. Shoes that are too tight, pointed or sized incorrectly for width or length can cause forefoot pain as they pinch the 5 metatarsal bones of the foot together. This causes soft tissue pain, bone pain and generalized discomfort as the arches of the foot are not allowed to function properly and the shock absorbing qualities of the foot are hampered. Ill fitting shoes particularly those that are too tight are a significant cause of forefoot pain.

Morton's neuroma—Morton's interdigital neuroma is not a cancer, but a swelling around the interdigital nerve between the metatarsal bones of the foot that causes numbness, tingling, burning and pain particularly on the small toe side of the forefoot. Patients will describe shocking sensation, electrical feeling and numbness/tingling into the toes as well as painful click. This too an be the result of ill fitting shoes/tight shoes and can often be relieved with properly fitting footwear. Morton's neuroma occurs when the metatarsal bones are too close together and rub and friction the interdigital nerve causing a natural repair process around the nervet to occur. This repair process or swelling around the nerve is called a Morton's interdigital neuroma. It is a swelling and protective response to the repetitive friction of the scissoring metatarsal bones as they rub against one another.

Depending on the reason the metatarsal bones are rubbing against one another, the condition may be entirely treatable if caught early. If the shoes are ill fitting, width size shoes can be selected which allow the metatarsal bones to spread apart. A metatarsal pad is also extremely useful as it spreads the transverse arch apart relieving pressure on the interdigital nerve. Correcting any extremes of motion such as high arches or flat feet can also be extremely effective as these are often causes of friction between the metatarsals.

Another cause of forefoot pain is sesamoiditis. Sesamoiditis is an inflammation of the sesamoids which are two pea size bones on the bottom of the great toe which serve as a fulcrum for flexion and push off but can also become extremely inflamed when the foot is subjected to a hard surface. This is often called "turf toe" as it is caused by artificial turf in athletes. Sesamoiditis can be treated through taping to limit motion, orthotic fabrication with specific accommodations to relieve pressure on the sesamoids and an orthotic called a Michael Chang extension which can limit motion of the sesamoids.

Metatarsalgia: Metatarsalgia is a general foot term for pain in the front of the foot, particularly the ball of the foot which occurs with shoes that are too hard (no cushioning), a lack of natural fat pad on the ball of the foot on the part of the patient and high heels which place an extreme amount of pressure on a small surface by tipping the foot forward, another preventable condition which leads to a painful result.

General metatarsalgia can often be treated with a metatarsal pad or metatarsal cushion which decreases force on the metatarsals by spreading pressure out and cushioning the blow to the bottom of the ball of the foot. Proper footwear (think elimination of high heels, eliminate shoes that are too tight) can also be a significant way to remove pain in the metatarsals.

These are just a small number of conditions which cause forefoot pain and are by no means all inclusive. However, stress fractures, strains and sprains in the forefoot can also cause pain in the front of the foot. As a good rule of thumb, a visit to a foot professional or podiatrist and/or orthopedic surgeon can help diagnosis and properly treat most forefoot pain conditions. For more information on forefoot pain and the treatments which have been most successful, feel free to make a no cost consultation at our clinic.