## MyoRehab

## **Myofascial Trigger Point Articles**

Peeling the Layers of the Bunion

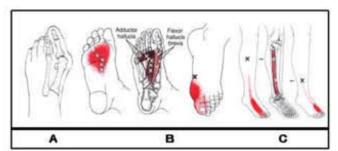
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The word "bunion" (rhymes with "onion"), originates from the Old French word for swelling or bump on the head. In the medical dictionary, the definition of a bunion refers to a localized swelling of the bursa (a gel filled sack between tendon and bone) found at the head of the first metatarsal. (Illustration A)

When the bursa becomes irritated and inflamed, it becomes enlarged, making the area more susceptible to on-going injury. Usually, having your shoes enlarged at the site of the irritation or buying spacious, properly fitted shoes can be a significant part of the solution.

The problem of the bunion really takes a turn for the worst, so to speak, when the position of the big toe changes by being pulled in, toward the midline of the foot. This is called hallux valgus. (Illustration A) When this misalignment occurs, there is even greater exposure of the bursa to irritation and injury. You might be wondering at this point how the misalignment occurs.



On the bottom of your foot, there are two small muscles that can cause much pain and misery. (Illustration B) When these muscles develop Myofascial Trigger Points, they combine forces to not only pull your big toe out of alignment but they also produce pain that is virtually indistinguishable from the bunion.

A Myofascial Trigger Point (TrP) is

a hypersensitive spot in a muscle that when stimulated, usually produces pain referred in a predictable pattern away from the site of the Trigger Point. These points also trigger contractions in muscles called taut bands that can pull bones out of alignment.

In illustration B, TrPs in the muscle identified on the right, flexor hallucis brevis, produces pseudo bunion pain. TrPs in the muscle identified on the left, adductor hallucis, causes taut bands that pull the big toe in toward the midline, increasing the pain and misery of an already inflamed bunion.

Identification and proper treatment of these muscles make a significant difference when combined with properly fitted shoes and other non-invasive corrections. Sometimes, when all appropriate measures to relieve bunion pain have been applied, pain at the big toe persists.

Occasionally, the therapists at MyoRehab see patients who, in spite of having done all the right things, are left with a remnant of their pain pattern. At first, they try to live with the pain by walking in a manor that "avoids" further injury. This usually results in a distorted pattern of walking called an antalgic gait or more commonly, walking with a limp. Walking this way for any length of time will actually contribute to the very injury you intended to avoid.

In a recent case, Philip was evaluated at MyoRehab for big toe pain that persisted. He said it was ironic that all the bunion pain for which he was treated resolved except for the original pain that, as he put it, "started it all". Despite his efforts to achieve relief with noninvasive methods including bunion pads and new shoes and more invasive approaches like steroid injections into the bursa performed by his doctor, the pain was still there.

Range of motion testing gave us the answer to the mystery; Myofascial Trigger Points in an often overlooked muscle group called extensor hallucis and extensor digitorum longus. (Illustration C) These muscles, working together, pull your toes and foot up and away from the floor while your foot is in the swing phase of walking. They also hold your toes up, delaying the last part of placing your foot flat on the floor.

When TrPs occur in these two muscles, we develop an antalgic gait to avoid this pain and walk on the outside of our big toe just enough to begin the process of irritating the bursa there. We substitute and overwork the small muscles in our feet to move our toes out of the way. This produces TrPs that add to the pain in our big toe. In the later stages, these TrPs distort the position of our big toe which adds yet another layer to the bunion complex.

Do you have layers upon layers causing your bunions to hurt? Is it time to start peeling away the layers of your pain? Give us a call.