## **Orthotics** Program

At Innovative Physical Therapy we specialize in working with clients with foot pain or deformity. Our years of expertise in correcting the biomechanics of the foot is evident in our choice of an outstanding orthotic from <u>Sole Supports</u> for our clients. We offer a dynamic orthotic that achieves exceptional results in controlling the biomechanics of the foot. We find it to be more effective than traditional orthotics and can actually achieve correction of foot deformity in some cases. They can also correct knee, hip and back posture.

## How Do Full Contact Orthotics Work?

The architecture of the bones of the foot allows the foot to be flexible or rigid during different phases of walking. Pronation of the foot places the foot in a flexible position. This position is important to allow the foot to accommodate to uneven terrain and absorb the forces of walking. In order to provide the rigidity to propel oneself forward, it is necessary for the foot to align itself in a more stable arched position, called supination. The excessively pronated foot is unable to assume an arched position and, consequently, does not provide a rigid lever to push off to take a step. Repeatedly pushing off of a flexible foot causes over-stretching of the ligaments of the foot and can result in progressive deformities and pain.

Full contact orthotics have a spring effect that allows the foot to pronate to absorb the impact of walking and then realigns the foot in a rigid position for the propulsion phase of gait.

## Who can Benefit?

Often, inadequate function of the foot can result in forces being transmitted up the leg and into the spine causing pain in the knee, hip, low back or even the neck. A custom fit, full contact orthotic will align the foot properly throughout the varied phases of walking to eliminate these excessive forces and prevent pain. It provides excellent control for runners with excessive pronation or other overuse syndromes to optimally align the foot and enhance shock absorption. A dynamic orthotic can stop the progression of foot deformities like bunions or hammer toes and prevent the pain and difficult shoe fit that would otherwise result.

## Orthotics in Children

In the pediatric population, excessive pronation or "flat foot" is common, especially in children with low tone or other developmental problems. A dynamic orthotic can have a huge impact on the development of normal walking and running as well as on the acquisition of advanced coordination and balance skills in the growing child. We have seen extraordinary change in developmental gait deviations immediately upon use of full contact, biomechanical orthotics. Providing biomechanical correction gives the child a stable base from which to walk, run, jump and play.

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