

Common Foot and Gait Related Pathologies

Ingrown Toenails

Symptoms:

- Tenderness and inflammation along the border of the toenail.

Causes:

- Repetitive friction between the shoe and the foot due to the enlarged bone structures. This point pressure causes pain.



Generic and Custom Insoles vs. Barefoot Science

Generic and custom insoles provide support that prevents excessive foot motion and reduces pressure on the nail caused by over-pronation. However, they act only as a short-term solution to reduce friction and the foot can become dependent on the support.

Barefoot Science stabilizes the foot, with its proven strengthening process, to address the true cause of the problem. Friction is reduced and circulation increases, facilitating healing.

Corns and Calluses

Symptoms:

- Thickening of the skin on the bottom of the foot (calluses) in high pressure and friction areas or on the joints of the toes (corns). It can be felt as sharp pain or as a dull ache.

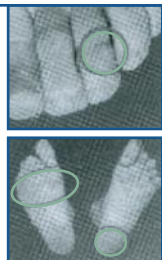
Causes:

- Constant pressure or friction from ill-fitting footwear and over-pronation.
- Angle of nail trimming. The trim angle should mirror the end of the toe.
- Acute impact or injury.

Generic and Custom Insoles vs. Barefoot Science

Generic and custom insoles attempt to stabilize the feet in order to prevent excess movement in the shoe. "Bracing" the foot in the already restrictive footwear environment can lead to muscle weakness and dependency on the support.

Barefoot Science provides stimulation to the otherwise isolated area of the foot to keep it strong. Impact energy is managed more efficiently, Minimalizing collapse and friction.



Hammertoes

Symptoms:

- Permanent claw-like positioning of the toes, usually involving the second and/or third toes. This can be accompanied by localized pain in the joint or by the appearance of corns and calluses.

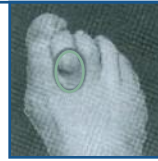
Causes:

- Imbalance in the strength between muscles that flex and muscles that extend the toes.
- Poor footwear design and tight fitting shoes that prevent a balanced movement of the toes.

Generic and Custom Insoles vs. Barefoot Science

Generic and custom insoles can lengthen flexor tendons, allowing the toes to straighten out. However, by supporting the foot in the already restrictive environment of the shoe, most insoles eventually weaken the foot, which will require continued support.

Barefoot Science promotes the balanced use of foot and lower leg muscles for equal measures of strength and flexibility. This maintains long-term foot health.



Morton's Neuroma

Symptoms:

- Pain, numbness or burning in the forefoot, particularly between the third and fourth toes.

Causes:

- Chronic compression or squeezing of the bones in the forefoot, caused by a restrictive toe box in ill-fitting shoes.

Generic and Custom Insoles vs. Barefoot Science

Generic and custom insoles help prevent excessive collapse of the metatarsal arch, while orthotics can provide customized support to both the medial and metatarsal arch. Dependency on insoles and custom orthotics (especially if rigid) develops as the foot's muscles progressively weaken.

Barefoot Science features a dome contour that helps "open up" the affected area through gentle pressure, quickly reducing pain. The System encourages the foot to work, increasing circulation as its muscles become stronger.



Bunions (Hallux Valgus)

Symptoms:

- Enlargement on the foot at the joint of the big toe.
- Inflammation and pain, leading to improper gait or unnatural walking patterns.

Causes:

- Ill-fitting shoes (too tight and too narrow) that cause friction and pressure at the joint of the big toe, as well as excessive inward rolling of the foot due to hypermobility of the foot and weakened foot muscles.

Generic and Custom Insoles vs. Barefoot Science

Generic and custom insoles provide support for the arch and can reduce over-pronation. However, when foot motion is chronically inhibited, the foot weakens, becoming more vulnerable to fatigue and pain.

Barefoot Science stabilizes the foot by building and maintaining strong muscles despite the "bracing" effect of most footwear. It is also important to choose shoes that adequately accommodate fore-foot width.



Bunionettes

Symptoms:

- Swelling and enlargement at the base of the fifth toe that can lead to improper gait and unnatural walking patterns.

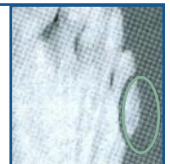
Causes:

- Ill-fitting footwear that causes friction and continual pressure on the joint of the fifth toe.

Generic and Custom Insoles vs. Barefoot Science

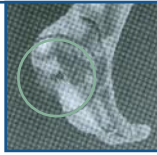
Generic and custom insoles successfully reduce pressure on the affected area. However, simply reducing pressure on the fifth toe without exercising the foot's muscles only provides short-term relief. The foot remains weak and can be vulnerable to gait-related injuries.

Barefoot Science stabilizes the foot with its proven strengthening process, addressing the symptom and the cause. Reducing hypermobility of the foot minimizes friction and stress on the problem areas. Barefoot Science advocates the use of flexible and properly fitting footwear.



Common Foot and Gait Related Pathologies

Plantar Fasciitis



Symptoms:

- Inflammation of the deep soft tissues in the arch region, sometimes accompanied by sharp pain in the heel. This is felt in the morning, after long periods of rest, or during prolonged standing or walking.

Causes:

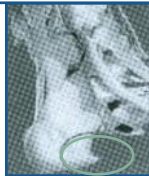
- Arch muscles contract excessively in an attempt to stabilize the foot, leading to premature fatigue as well as damage in the plantar fascia.

Generic and Custom Insoles vs. Barefoot Science

Generic and custom insoles absorb impact energy, thus reducing the strain on the arch system, but provide only temporary relief. They don't strengthen the feet.

Barefoot Science strengthens the muscles of the foot and arch, reducing tension on the plantar fascia. Improved muscular efficiency increases circulation in the area that promotes healing of the damaged tissues.

Heel Spurs



Symptoms:

- A dull or sharp, shooting pain experienced at the heel when weight bearing after long periods of rest.

Causes:

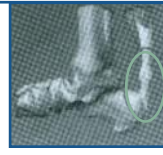
- Excessive tension in the plantar fascia from over-pronation. This results in a slow pulling on the heel bone and the formation of a spur.

Generic and Custom Insoles vs. Barefoot Science

Generic and custom insoles stabilize the foot to minimize friction and stress on problem areas, but the foot becomes dependent on the support. The plantar fascia remain weak, and continue to pull at the insertion point.

Barefoot Science eases the tension and strain on the plantar fascia. This allows healing of the damaged tissues and prevent a recurrence of the problem. By allowing the arch to stabilize naturally, the heel spur is kept parallel to the ground and is less likely to protrude into the surrounding tissue.

Achilles Tendonitis



Symptoms:

- Inflammation of the Achilles tendon accompanied by sharp pain behind the heel. This pain is often during the first few steps in the morning or after long periods of rest.

Causes:

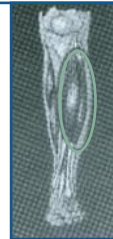
- Micro-tears in the Achilles tendon that result from excessive and repetitive stretching or from overtraining the calf muscles (doing "too much, too soon")

Generic and Custom Insoles vs. Barefoot Science

Insoles designed to raise the heel can alleviate pain resulting from excess tension on the tendon and also provide various degrees of stability. However, the true cause (usually excessive pronation) is not addressed.

Barefoot Science promotes a balance of strength and flexibility in the foot and legs muscles that relieve tension on the Achilles tendon, protecting it and the calf muscles from injury.

Anterior Shin Splints



Symptoms:

- Pain, numbness or tingling in the front lateral portion of the lower leg. Referred to as stress fractures when they involve bone - anterior compartment syndrome when they involve soft tissue.

Causes:

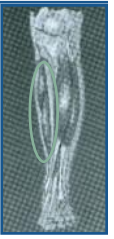
- Micro-fractures of the tibia related to impact, running and sudden stops or down hills, muscle imbalances or over-pronation.

Generic and Custom Insoles vs. Barefoot Science

Generic and custom insoles absorb impact energy and provide general support to reduce excessive pronation. They may provide temporary relief but are only effective if the cause is impact-related.

Barefoot Science promotes a balance of strength and flexibility in all muscle groups reducing the workload on the muscle of the lower leg. A strong arch provides effective natural cushioning and stability.

Posterior Shin Splints



Symptoms:

- Pain and inflammation on the medial (inside) of the tibia, at the side or to the rear.

Causes:

- Strain on the muscle attachment at the bone. This is usually caused by a tight calf muscle group and/or excessive pronation.
- Running frequently on slanted surfaces.

Generic and Custom Insoles vs. Barefoot Science

Generic and custom insoles provide general support to the foot to help reduce pronation and temporarily relieve the workload for the muscles that stabilize the foot, however, they encourage dependency that further weakens foot muscles.

Barefoot Science reduces the strain and stress on the calf muscles by building a strong, structurally sound arch. Pronation is reduced by gradually strengthening the foot's supporting muscles to maximize stability.

Chondromalacia Patella



Symptoms:

- Aching pain, generally felt in the knee area. It can occur beneath the knee cap or on either side of the knee.

Causes:

- Excessive friction between the knee cap and the tracking groove of the femur.
- Muscle imbalance between the outer portion of the thigh and the inner portion of the thigh.
- Excessive and repetitive impacts that cause micro-fractures.

Generic and Custom Insoles vs. Barefoot Science

Generic and custom insoles stabilize the foot, reducing strain on the knees, but don't effectively address the cause, consequently, alignment is dependent solely on the device.

Barefoot Science strengthens the muscles of the foot and arch to help naturally reduce excessive pronation. Efficient alignment continues whether barefoot or wearing shoes without the System. Comfort is not dependent on constant support.

Common Foot and Gait Related Pathologies

Iliotibial Band Syndrome (ITBS)



Symptoms:

- Aching and tightness on the outer portion of the leg in the knee area.

Causes:

- Excessive irritation of the iliotibial band due to strain, friction and stress.
- Imbalance in running surfaces that can lead to uneven stresses on the joints.

Generic and Custom Insoles vs. Barefoot Science

Generic and custom insoles provide general support to the foot's arch and may help reduce pronation. They temporarily relieve strain on the IT band, but the muscles in the arch system remain dependent on the support.

Barefoot Science strengthens the muscles of the foot and arch, naturally reducing excessive pronation. This promotes efficient patellar tracking and reduces strain and stress in the knee area. Alignment is not dependent on constant support.

Hip Pain



Symptoms:

- Painful sprains of the hip joint and snapping hip phenomenon.
- Swelling and pain in the hip region made worse with rotation.

Causes:

- An outside impact or blow as well as habitual movement patterns cause imbalances in the muscles around the hip.

Generic and Custom Insoles vs. Barefoot Science

Generic and custom insoles stabilize the foot to realign the knees and hips. Because the supportive nature of rigid orthotics weakens the foot, the ability to manage impact forces and maintain alignment decreases over time, manifesting in other symptoms over time.

Barefoot Science promote efficient bone and muscle alignment in the foot, ankle and lower leg, redistributing stress more equally to reduce strain on the hip muscles. It provides a strong foundation that is able to more efficiently maintain alignment in or out of shoes.

Lower Back Pain



Symptoms:

- Lower back muscles cramping and spasm with associated discomfort in the gluteal region.
- Pain in the lumbar spine.

Causes:

- Inflammation caused by irritation or injury to the disk, facet joints, ligaments, or muscles of the lower back.
- Nerve-related pain caused by irritated or pinched nerve roots leaving the spine and aggravated by poor posture.

Generic and Custom Insoles vs. Barefoot Science

Generic and custom insoles can stabilize the foot well enough to improve alignment and relieve pain. However, they only offer a short-term solution.

Barefoot Science reduces strain in the lower back by strengthening the muscles of the feet and lower leg to efficiently manage impact force and stabilize the lower back. Stronger feet are better able to manage forces that would quickly fatigue the knees, hips and back.

