

## **List of Podiatry Services**

- Custom Fabrication
- Plantar Fasciitis
- Shin splints
- Heel Pain
- Ingrown Toenails
- Achilles tendon
- Ankle pain
- Arthritis
- Athlete's foot
- Blisters
- Fungal Toenails
- Wound Care
- Diabetic Foot Care
- Diabetic Shoes
- Hammertoes
- Callouses
- And More

## **Podiatry Treatments:**

### **Foot pain:**

Foot pain is often debilitating for individuals who enjoy an active lifestyle. Many causes of foot pain can be attributed to abnormal mechanics leading to deformities, sprains, strains, and fractures. However, the most common regions of foot pain occur in three areas: the ball of the foot, heel of the foot, and Achilles tendon. Below is a breakdown of each area and the possible causes and podiatry treatment options:

### **Ball of the foot:**

When pain is felt in the ball of the foot, which is located on the bottom of the foot directly

behind the toes, it could be a result of joint or nerve damage in the area. In some cases, other conditions such as Morton's neuroma can cause pain in the ball of the foot. Seeking the help of a podiatrist is wise when suffering pain in the ball of the foot.

### **Heel of the foot:**

When pain is located in the heel of the foot, it is most commonly due to Plantar Fasciitis. This condition is due to increased tension or pull of the plantar fascia when ambulating. This leads to progressive flattening of the arch. This is usually associated with changes in activity level, weight gain, and tightening of the calf muscle and poor shoe gear. Treatment options can include:

- Changes in shoe gear
- Orthotics
- Stretching
- Night splint\*
- Cortisone injections
- Extracorporeal Shockwave Therapy
- Plantar Fascial release
- Microfasciotomy

### **Achilles tendon:**

The third common location of pain is the Achilles tendon. The Achilles Tendon is the largest tendon in the human body and connects the calf muscle to the heel bone. Achilles tendonitis, or inflammation of the tendon, often occurs with overuse. Symptoms can include pain, stiffness, and swelling. Treatment includes decreasing inflammation and controlling excessive motion. Other treatments can include:

- Supportive shoe gear
- Orthotics
- Stretching
- Night splint\*
- Extracorporeal Shockwave Therapy
- Bracing
- Anti-Inflammatory modalities (Ice, ultrasound, immobilization, surgery)

\*A Night Splint is a device worn at night to prevent contraction of the Achilles tendon and Plantar Fascia to reduce pain and tearing when first ambulating in the morning.

Below is a breakdown of other types of foot problems and their treatments:

### **Heel spur:**

A Heel spur is defined as a bone growth on the heel bone. It is often located on the underside of the heel bone where the heel connects to the plantar fascia. The plantar fascia is the connective tissue that runs along the bottom of the foot. This tissue holds the arch together and absorbs shock during activity. As the plantar fascia begins to pull away from its insertion into the bone at the heel, the body lays down bone in the direction of the pull leading to spurs that can be seen on an x-ray. The plantar fascia can become overstretched due to weight gain, flattening of the arch, stress, inflammation, and ill-fitting shoes. Proper treatment includes:

- Changes in shoe gear
- Orthotics
- Stretching
- Night splint\*
- Cortisone injections
- Extracorporeal Shockwave Therapy\*
- Plantar Fascial release
- Microfasciotomy
- Padding/Cushioning
- Physical Therapy
- NSAIDS
- Surgery
  - TOPAZ/Microfasciotomy to promote inflammation to stimulate healing while keeping the plantar fascia intact.
  - Plantar Fascial Release

#### **Corn:**

A corn is a callous that develops on an area with excessive rubbing or pressure. This can occur when toes rub together or against a shoe. A corn can become extremely uncomfortable and can result in pain or ulceration. Typically, a callous on the bottom of the foot is due to excessive pressure on the metatarsals from hammertoes or a lack of motion from adjacent metatarsals or toes. Treatment options include:

- Properly fitting footwear
- Application of pads around the corn
- Trimming or shaving of the corn
- Urea cream & Pumice to dissolve the lesion
- Orthotics to offload plantar pressure
- Surgery (for severe cases to correct deformity)

## **Bunion:**

A corn is a callous that develops on an area with excessive rubbing or pressure. This can occur when toes rub together or against a shoe. A corn can become extremely uncomfortable and can result in pain or ulceration. Typically, a callous on the bottom of the foot is due to excessive pressure on the metatarsals from hammertoes or a lack of motion from adjacent metatarsals or toes. Treatment options include:

- Modification to shoe gear to support and accommodate joint
- Orthotics to restore proper joint function, reduce inflammation of the tissues, reduce pain, and prevent progression of the deformity.
- Padding of the area
- Surgery (type of surgery depends on severity of deformity)

## **Morton's Neuronal:**

Morton's Neuroma is swelling and enlargement of the tissue surrounding the nerve. Most commonly, a neuroma is located between digits 2 & 3 or digits 3 & 4. A neuroma usually forms as the foot collapses as the forefoot splay. As this happens, the nerve is drawn forward and become irritated by the intermetatarsal ligament. As the irritation continues, the tissues thicken around the nerve. As the tissues become thicker, a "click" may be palpated when pressing the adjacent toes together. You may also notice the digits separating. Symptoms include numbness, sharp pain or burning in the ball of the foot that can extend to the digits. Treatments can be conservative or surgical:

### Conservative Treatments

- Supportive shoe gear with a wider toebox
- Orthotics to control the flattening of the arch & splaying of the forefoot
- Padding the area with a metatarsal pad
- Injection therapy
  - Sclero Therapy: A series of 7 injections of dehydrated alcohol into the nerve to desensitize. Sclerotherapy is a non-surgical way of treating neuroma pain.
  - Cortisone Injections: these are discouraged due to risk of fat pad atrophy
- Surgical Options
  - MIND—minimal incision nerve decompression. This procedure releases the intermetatarsal ligament without damaging the nerve.
  - Neurectomy—removal of neuroma. Complications include numbness, reoccurrence of neuroma as it attempts to regrow.

## **Hammertoes:**

Hammertoes: Hammertoes are contracture of the digits at one or both joints. As the digits contract, the prominent joint can rub against shoes or adjacent toes causing pain and calluses. As the deformities continue, the toes become more fixed and rigid and no longer move freely in the shoes leading to

painful pressure, calluses, or wounds. These contracted digits may also lead to thickening of the nails due to repeated trauma.

#### Conservative Treatments

- Supportive shoe gear
- Shoes with a higher toe box to prevent rubbing
- Shoes with a straight last to prevent rubbing
- Sole Support orthotics to provide muscle tendon balance to straighten the toes to the degree that they are still flexible & prevent further contraction of the digits
- Padding of the digits with foam or silicone pads to prevent rubbing against adjacent toes or shoe gear.

#### Surgical Treatment

- There are a variety of surgical procedures to straighten hammertoes depending on the level of deformity. Typically, an implant is placed into the digit to maintain alignment for predictable, long term results.

#### **Ankle sprain:**

An ankle sprain occurs when the ligaments around the ankle become injured or overstretched. Sprains are usually the result of extreme twisting, turning, or rolling. This can occur in high heels, unsupportive shoe gear, irregular foot positioning, walking on irregular surfaces, or direct trauma or impact. Abnormal foot position or excessive pronation can lead to chronic strain on the ankle ligaments leading to weakening & instability and higher occurrences of sprains. Symptoms include pain, swelling, bruising.

#### Acute Treatment

- RICE—rest, ice, compression, evaluation.
- Immobilization in a soft cast and fracture boot.

#### Chronic Treatment

- Sole Support total contact orthotics to stabilize the rear foot and ankle
- Compression socks
- AFO—ankle foot orthosis for severe injury & instability
- Surgery to repair torn ligaments

**Stress Fracture:** A stress fracture is due to constant, repetitive microtrauma to bones of the foot or ankle. This creates an incomplete fracture that can progress to a complete fracture if left untreated. Treatment includes immobilization to allow the fracture to heal. For long term control of repetitive trauma, supportive shoe gear, orthotics or a brace is recommended.

**Fracture of Toes or Metatarsals:** After diagnosing with an x-ray, treatment can be conservative with splinting or casting or treatment can also be surgical with realignment of the fracture fragments & placement of hardware and fixation. Fractures will usually heal in 6 weeks or less. Fracture healing can also be affected by nutrition, smoking, circulatory status, and vitamin D levels.

**\*Extracorporeal Shockwave Therapy (ESWT):** This is an outpatient procedure used to treat acute and chronic plantar fasciitis or Achilles tendonitis. The procedure was initially designed for elite athletes to speed recovery without loss of function or the down time of surgery.

ESWT works by applying 2500 shocks to the area of inflammation. The shocks work by causing localized inflammation to the area which, in turn, leads to the recruitment of new blood supply to the area which helps speed collagen regeneration and tissue healing all while leaving the affected structures intact. The success rate is approximately 74% and can be performed at a fraction of the cost of out-patient surgery without any down time. During this treatment, no NSAIDs or Anti-Inflammatory medications (Advil, Motrin, Aleve, Aspirin) are allowed as these counteract the ESWT treatment.

This procedure is performed in-office and it usually a series of 3-5 treatments performed 1 week apart. The full healing process takes 8-10 weeks. The treatments are \$50 each and are not covered by insurance. Generally, this is less than or similar to your co-pay. After ESWT treatments are finished, it is still recommended that the patient wears supportive shoe gear and arch supporting insoles to prevent re-inflammation of the treated area.