In addition to the common foot pathologies and deformities commonly found with diabetics, the following are additional pathologies.
Condition: Onychomycosis: Fungal infection of the nails. Nails become thickened, discolored and diabetics have an increased risk due to PVD. Podiatrist can treat with oral antibiotics and regular debridements. Long standing, untreated tinea pedis eventually spreads to the nails. Does NOT qualify for diabetic footwear.

Diabetes Mellitus
**Condition:** Edema
An abnormal accumulation of fluid trapped beneath the skin very commonly found in the lower extremities such as the feet and legs

**Causes:** Medications; liver or kidney disease; heart failure; venous insufficiencies; pregnancy

**Treatment:** Compression hosiery; properly fit shoes; leg elevation
**Condition:** Ingrown Nails

**Causes:** Improper trimming of nails; Ill-fitting shoes; trauma to the nail plate; genetics

**Symptoms:** Pain along nail bed; redness; tenderness to pressure

**Prevention:** Proper shoe size; proper nail trimming (straight across);

**Treatment:** Sometimes soaking afflicted area; any drainage should be referred to a physician for possible surgery.

**Untreated:** Possible infection; unusual gait
Condition: Morton’s Toe
A condition in which the first ray is shorter than normal.

Cause: Hereditary

Treatment: Requires the fitter to properly size the shoes based on the longest toe, the second ray.
**Condition:** Morton’s Neuroma  
**Causes:** A painful condition that affects the ball of the foot, mostly between your 3rd and 4th toes. Usually irritation, pressure or injury leads to a growth of nerve tissue.  
**Symptoms:** No outward visible sign. Feeling like standing on a pebble, burning pain in ball of foot, tingling or numbness in toes.  
**Treatment:** Depends on severity. Treatment ranges from properly fitted arch supports, cortizone injections for pain, cryogenic neuroblation (exposure to cold temps to numb; temporary), decompression surgery or nerve removal.
**Condition:** Plantar Fasciitis

Plantar fascia is the band of thick connective tissue which extends from the calcaneus to the metatarsal heads. The main purpose of the fascia is to support the arch. Plantar fasciitis is the inflammation of that area. Pain increases over time.

**Causes:** Lack of support

**Prevention:** Stretching; proper footwear

**Treatment:** arch supports; anti-inflammatory medications; cortisone injections; stretching
**Condition:** Gout
A complex form of arthritis characterized by sudden, severe attacks of pain, redness and tenderness in joints, often the joint at the base of the big toe.

**Causes:** Elevated levels of uric acid in the blood which crystallize and are deposited in joints, tendons and surrounding tissues.

**Treatment:** Medications; Diet—reduction of meat; alternative measures would be coffee, cherries and vitamin C
Condition: Metatarsalgia

Symptoms: Pain in the ball of your foot — the part of the sole just behind your toes
Sharp, aching or burning pain
Pain in the area around your second, third or fourth toes — or, only near your big toe
Pain that gets worse when you stand, walk or run and improves when you rest
Sharp/shooting pain or numbness in your toes
Pain that worsens when you flex your feet
A feeling in your feet as if you're walking with a pebble in your shoe
Increased pain when you're walking barefoot, especially on a hard surface

Causes: High amounts of activity or developed from ill fitting shoes.

Prevention: Properly fitted and supportive shoes and inserts.
**Condition:** Cellulitis
Severe inflammation of dermal and subcutaneous layers of the skin.

**Causes:** Often occurs where the skin has previously been broken: cracks in the skin, cuts, blisters, burns, insect bites, surgical wounds. Skin on the face or lower legs is most commonly affected by this infection, though cellulitis can occur on any part of the body.

**Treatment:** Appropriate antibiotics and recovery periods can be anything from 48 hours to six months.
**Condition:** Plantar warts  
**Causes:** Same type of virus (human pappillomavirus) that causes warts on your hands and fingers. These can be very painful and are sometimes mistaken for calluses.  
To distinguish between calluses and warts:  
- Small, fleshy, grainy bumps on the soles of your feet  
- Hard, flat growths with a rough surface and well-defined boundaries  
- Gray or brown lumps with one or more black pinpoints, which are actually small, clotted blood vessels, not "wart seeds"  
- Bumps that interrupt the normal lines and ridges in the skin of your feet  
**Treatment:** Laser removal, acid
**Condition:** Gangrene
A serious and potentially life-threatening condition that arises when a considerable mass of body tissue dies necrosis.

**Causes:** This may occur after an injury or infection, or in people suffering from any chronic health problem affecting blood circulation. The prime cause of gangrene is reduced blood supply to the affected tissues, which results in cell death. Diabetes and long-term smoking increase the risk of suffering from gangrene.

**Treatment:** Debridement, amputation (in severe cases), antibiotics, hyperbaric oxygen therapy, maggot therapy.
**Condition:** Hallux Limitus and Hallux Rigidus

Hallux limitus is the limitation of motion at the first MTP joint that results in a functional impairment.

Hallux rigidus is the total lack of motion of the first MTPJ, usually preceded by hallux limitus. Less than 20° dorsiflexion is approximately the degree at which the joint translates from limitus to rigidus.

**Causes:** Usually degenerative arthritis of the first MTPJ is associated with hallux limitus. The normal range of dorsiflexion at this joint is approximately 55°-65°.

**Treatment:** Rocker bottom sole shoes
**Condition:** Limb length discrepancy

**Causes:** Unequal leg lengths due to a number of factors including hip replacement, scoliosis, or hyperpronation conditions.

The occurrence for limb length inequality after a hip arthroplasty is between 27-50% of the time. Actual differences less than 1 cm are generally considered to be a normal variation.

**Recommendation:** Have a podiatrist or orthopedist assist with the measurement of the discrepancy.

**Treatment:** Sole lift
**Condition:** Haglund’s Deformity or “Pump bump”  
**Causes:** Improperly fit shoes  
**Treatment:** Since this deformity can cause fitting issues in the heel of the shoes, a softer counter or a counter-less shoe.
Condition: Tendonitis
Symptoms: An inflammation and tearing of a tendon from the bone. Symptoms can vary from an achy pain and stiffness to the local area of the tendon, to a burning that surrounds the whole joint around the inflamed tendon. With this condition, the pain is usually worse during and after activity, and the tendon and joint area can become stiffer the following day.
Causes: Usually seen after excessive repetitive movement with which the tendon gradually becomes tighter and the fibers begin to tear. (Ex. Tennis players excessive movement of hitting the ball and use of the elbow.)
Prevention: Stretching
Condition: Arthritis
Inflammation of one or more of your joints, such as one or both knees or wrists, or a part of your spinal column. The two most common types of arthritis are osteoarthritis and rheumatoid arthritis. Joint pain and stiffness are the main symptoms of arthritis.

Symptoms: Usually involve the joints; depending on the type of arthritis you have, your joint symptoms may include: Pain; Stiffness; Swelling; Redness; Decreased range of motion

Causes: Damage to the joints

Treatment: Medications, Therapy, Surgery (joint replacement or surgery), weight loss, exercise, assistive devices
**Condition:** Equinus

**Symptoms:** Limited dorsiflexion of the foot; Compensate by toe-walking.

**Causes:** Tightness in the achilles tendon or calf muscles; congenital; acquired through situations limiting the upward movement for periods of time, such as casts, crutches or constant use of high heels; diabetes can also cause tightness of the Achilles tendon

**Prevention:** Calf stretching, night splints, heel lifts, and arch supports or orthotics are possible treatment options.
Condition: Elephantiasis: Disease that is characterized by the thickening of the skin and underlying tissues, especially in the legs.
Causes: Lymphatic damage from certain sexually transmitted diseases; tuberculosis; an infectious disease called leishmaniasis; repeated streptococcal infections; leprosy; and environmental factors such as exposure to certain minerals (e.g., silica). In some cases, no cause can be identified (idiopathic).
Treatment: Medicine (no vaccine yet available); extra depth soft vamp footwear
Additional Terms:

*Sensate*- with feeling
*Insensate*- without feeling
*Ischemia*- restriction in blood supply, generally due to factors in the blood vessels
*Debridement*- is the medical removal of a patient's dead, damaged, or infected tissue to improve the healing potential of the remaining healthy tissue.
*Acute*- short onset; rapid course
*Chronic*- persistent and lasting medical condition

Common Foot Pathologies and Deformities