

Common Foot Pathologies

In addition to the common pathologies associated with Diabetes, a fitter may also encounter these deformities and conditions.

Condition: Onychomycosis

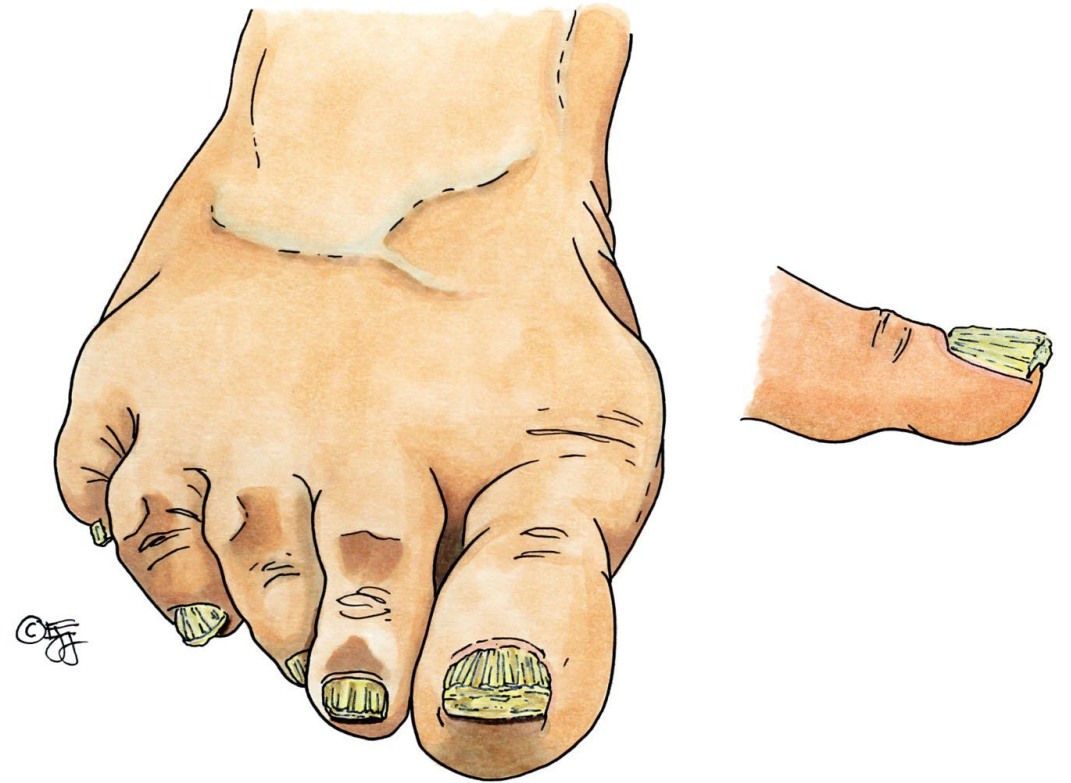
A common disease of the nails in which the nails become thickened and discolored. As the fungal infection progresses, the nail can become brittle and break off.

Causes

- Aging
- Humid/moist environment
- Athlete's foot
- Minor skin or nail injury

Treatments

- Oral antifungal medications
- Long term topical medication



**Condition: Bunionette or
Tailor's Bunion**

A bony bump that forms on lateral aspect of forefoot that may become painful

Causes

- Congenital
- Poor-fitting shoes
- Trauma

Treatments

- Appropriate footwear
- Surgical correction



Condition: Interdigital (Morton's) Neuroma

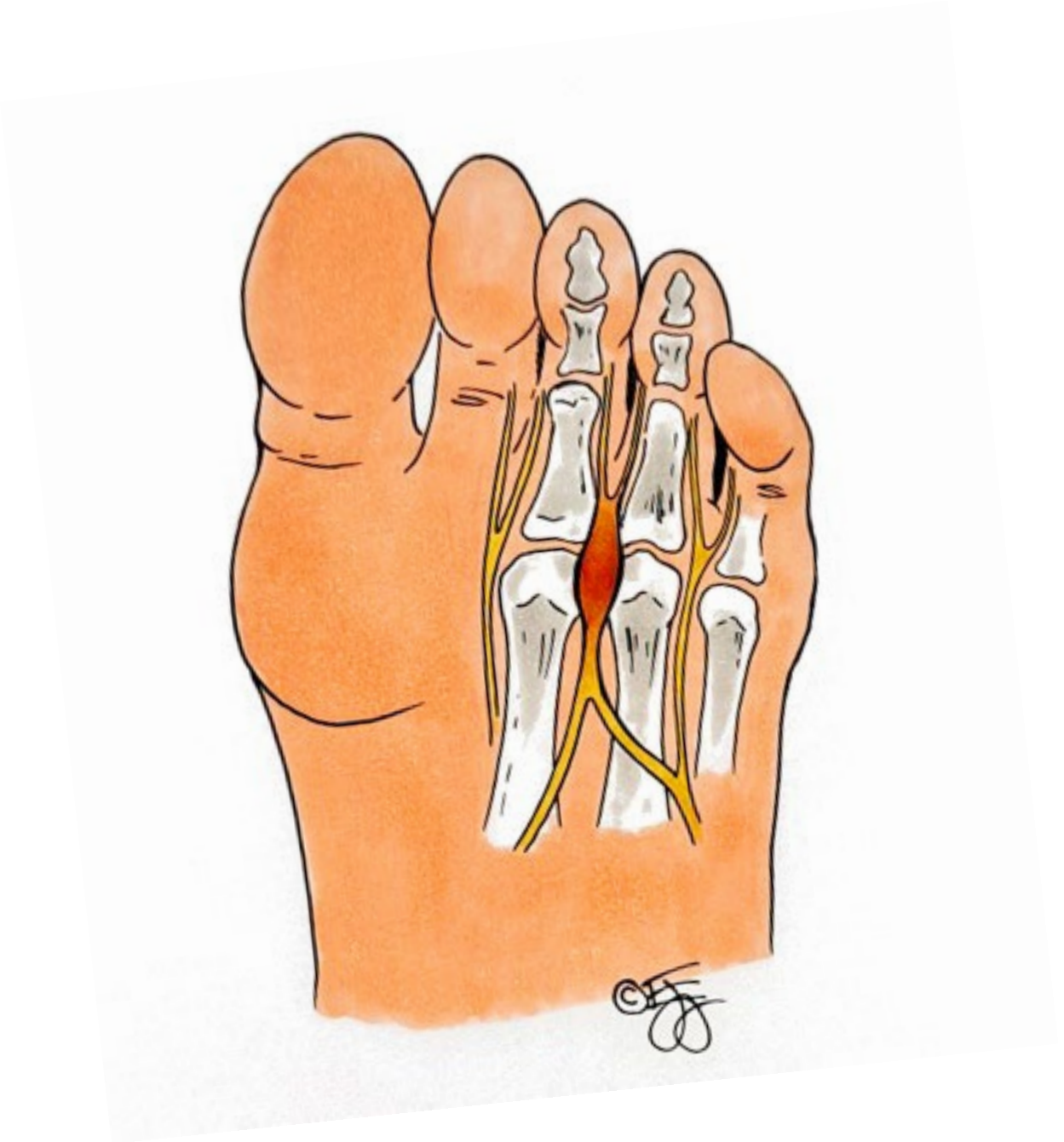
A thickening and inflammation of and around the digital sensory nerves. Most commonly in the 2nd and 3rd webspaces. Can cause sharp, burning pain in the ball of the foot.

Causes

- Compression/tension of the interdigital nerve around the transverse intermetatarsal ligament
- Repetitive microtrauma

Treatments

- Proper-fitting shoes
- Inserts with metatarsal pad
- Injections
- Surgery



Condition: Arthritis

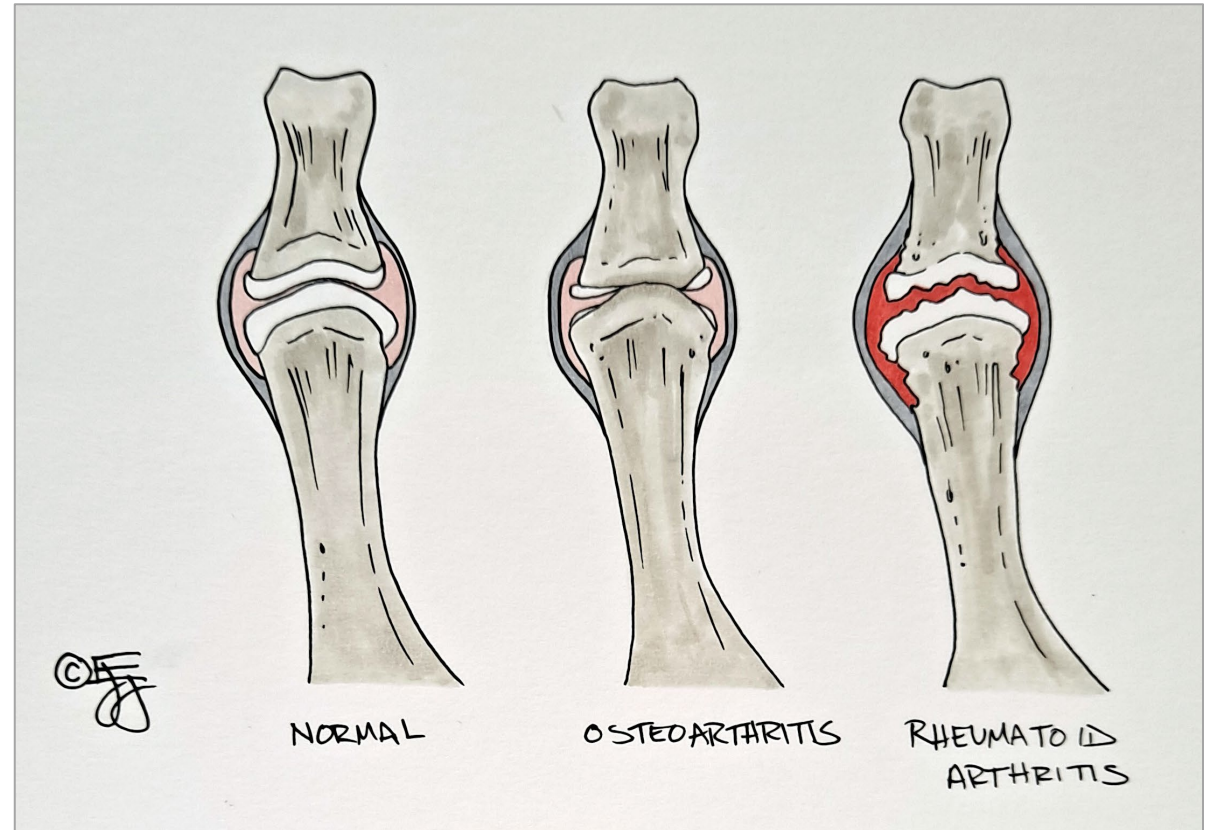
- Degenerative change in a joint. May involve cartilage, synovial lining and/or bones.
- Many types of arthritic conditions can affect the foot and ankle.
- Motion is painful.

Causes

- Autoimmune process
- Wear and tear
- Old age
- Trauma

Treatments

- Restrict painful motion
- Provide cushion and support
- Anti-inflammatory medications
- Injections
- Surgery



Osteoarthritis

- Thinned cartilage
- Bone ends rub together

Rheumatoid Arthritis

- Bone erosion
- Swollen, inflamed synovial membrane

Condition: Metatarsalgia

An “umbrella” term for pain and inflammation under the ball of the foot (metatarsal heads).

Causes

- Underlying foot structure
- Repetitive microtrauma
- Plantar fat pad atrophy
- Improper footwear

Treatments

- Dependent on cause
- Cushion and offload affected met heads with proper footwear and foot orthoses
- Met pads, met bars, rocker soles
- NSAIDs, injections



Condition: Sesamoiditis

An inflammation of the sesamoid bone(s) under the 1st metatarsal head

Causes

- Repetitive trauma
- Improper footwear
- Stress fracture

Treatments

- Foot orthosis
- Met pad, dancer's pad, offload
- Injection
- Surgery



Condition: Haglund's deformity (pump bump)

An abnormality of the bone and soft tissues in the foot. The soft tissue near the back of the heel can become irritated and painful when the large, bony lump rubs against the shoe counter.

Causes

- Improper footwear
- Tendoachilles contracture
- Cavovarus foot
- Heredity

Treatments

- Shoe with padded collar
- Heel lift
- NSAIDs
- Surgery



Condition: Edema

An abnormal accumulation of fluid trapped beneath the skin. It is very commonly found in the lower extremities.

Causes

- Medications
- Liver or kidney disease
- Heart failure
- Venous insufficiencies
- Pregnancy

Treatments

- Medications
- Elevation of feet/legs
- Compression hosiery



Condition: Charcot Arthropathy

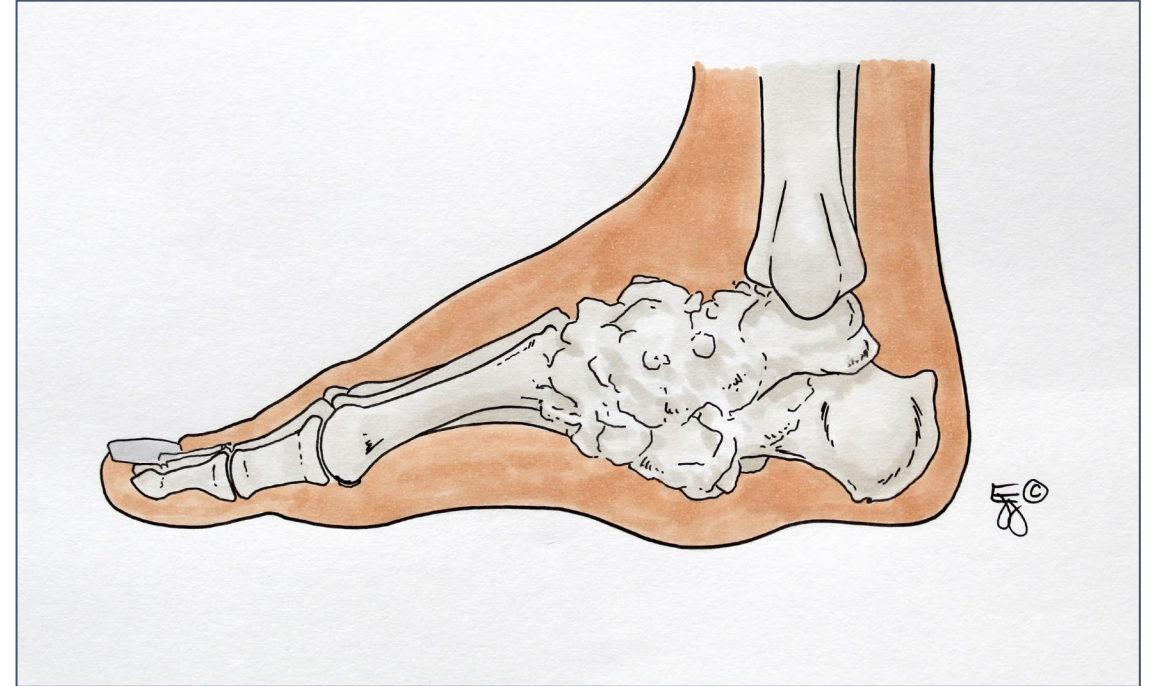
A progressive musculoskeletal condition characterized by joint dislocation, fractures and deformities. It results in progressive destruction of bone and soft tissue of weight-bearing joints, most commonly in the foot and ankle.

Causes

- Loss of sensation and proprioception leads to repetitive trauma the joint

Treatments

- Off loading and immobilization
- Total contact casting (TCC)
- Bracing



Condition: Plantar Fasciitis

“First Step Pain”

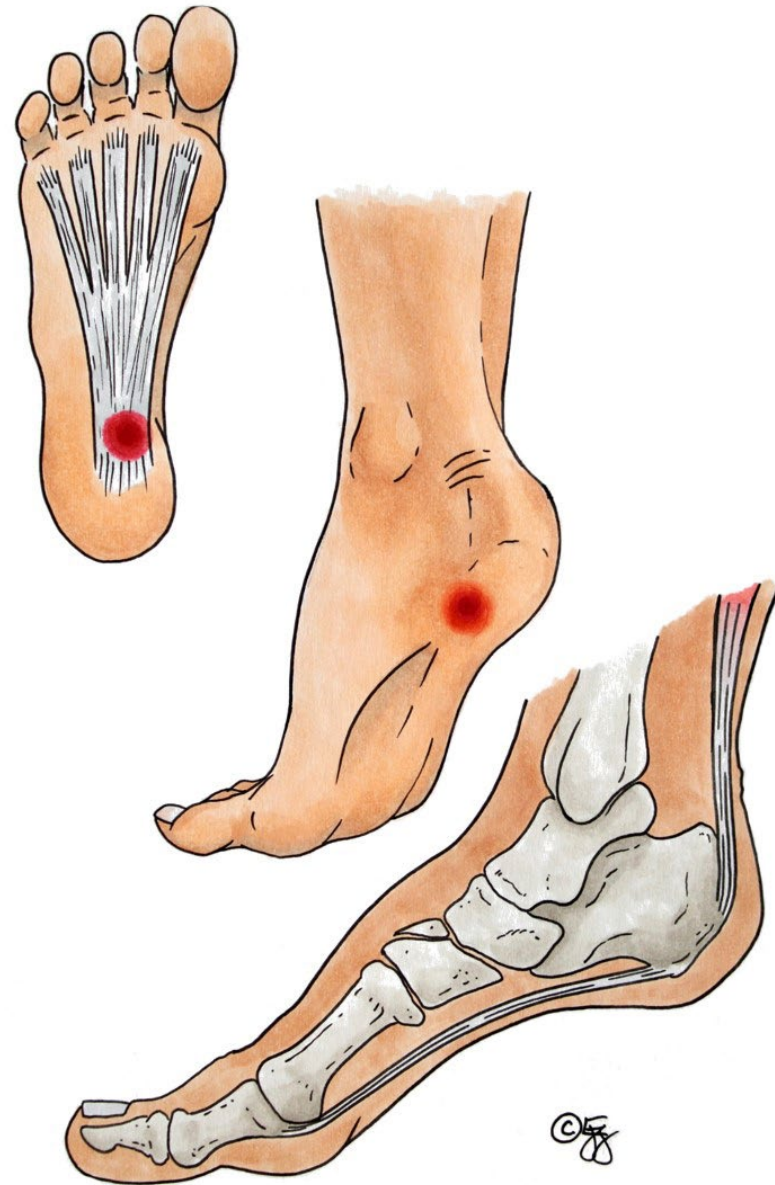
Inflammation of the plantar fascia

Causes

- Overuse
- Long period of standing
- Increase in exercise
- Obesity

Preventions/Treatments

- Arch supports
- NSAIDS
- Cortisone injections
- Stretching exercises
- Night splints



Condition: Posterior Tibial Tendinitis

Dysfunction (Adult Acquired Flatfoot)

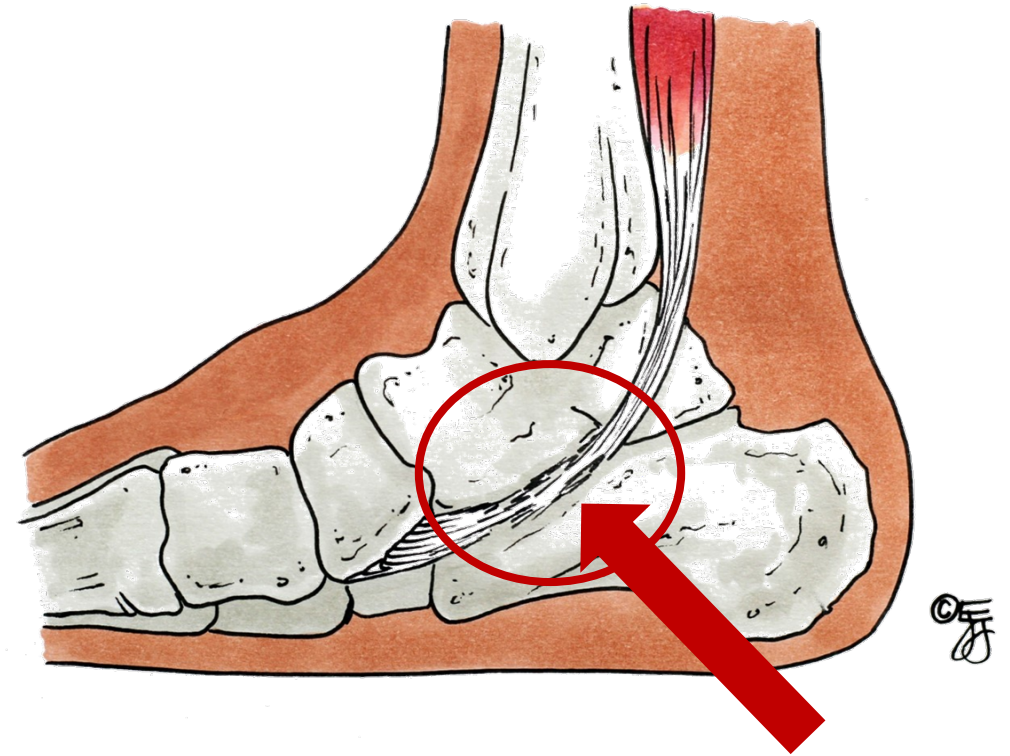
Inflammation/Tearing of the posterior tibial tendon and inability to support or stabilize the arch of the foot

Causes

- Overuse
- Underlying predisposing deformity
- Trauma

Treatments

- Rest
- Ice
- NSAIDs
- Orthotics
- Bracing
- Surgery
- Physical therapy



Condition: Stroke (Drop Foot)

Brain cells are deprived of oxygen and the result can be memory and muscle control loss including difficulty dorsiflexing

Causes

- Overweight
- Aged 55 or older
- Family history
- Lack of exercise
- Drink heavily, smoke or use illicit drugs

Treatments

- Surgery
- Rehab
- Shoe modification (toe skater)
- Bracing



Condition: Limb Length Discrepancy

Unequal leg lengths

Causes

- Hip fracture/replacement
- Scoliosis
- Congenital deformity
- Hyperpronation conditions

Treatments

- Heel and sole lift



Condition: Deep Vein Thrombosis (DVT)

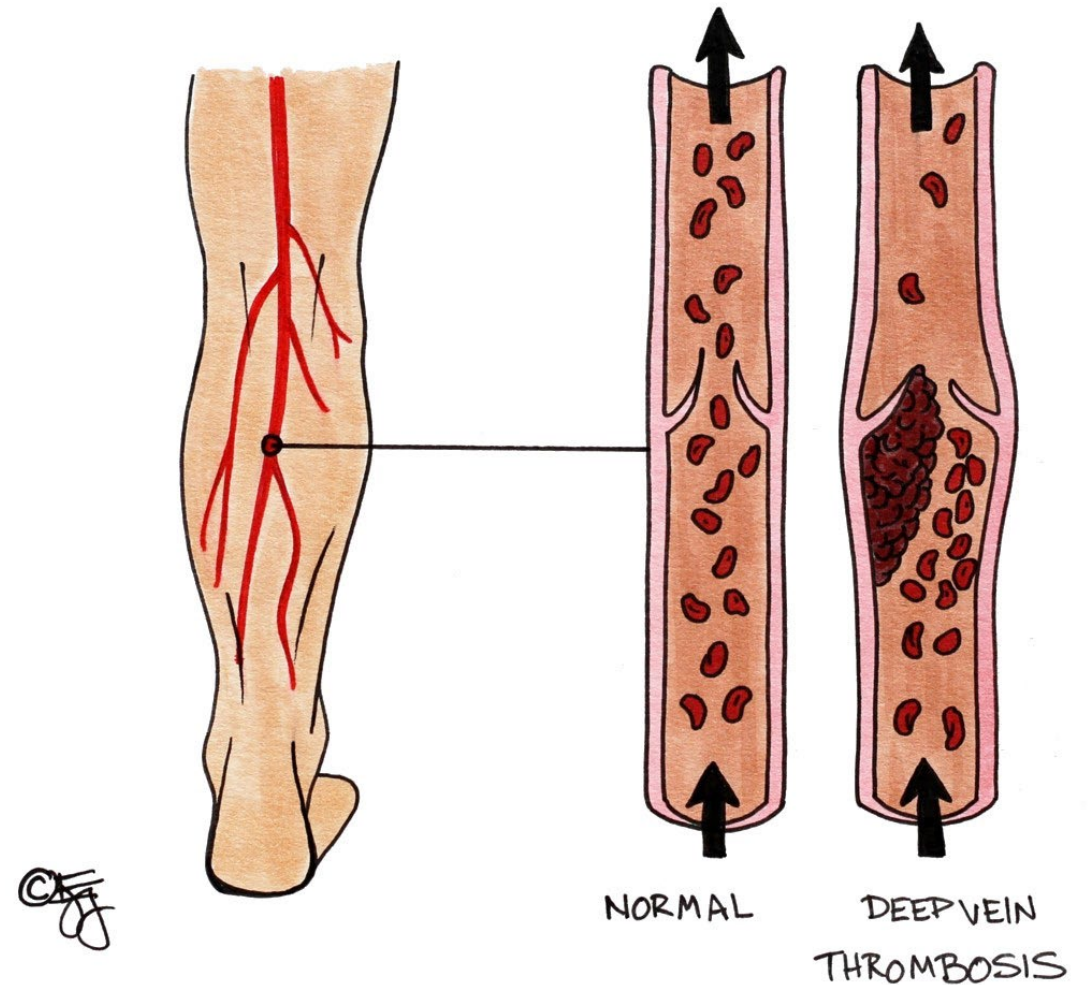
Formation of a blood clot in a deep vein and causes pain, swelling and redness; Pulmonary Embolism (PE) is a detachment of a clot which may result in death if it reaches the lung

Causes

- Venous stasis (slow blood)
- Hypercoagulability (clotting)
- Changes in the endothelial blood vessel lining

Treatments/Preventions

- Frequent walking
- Calf exercises
- Anticoagulants
- Graduated compression stockings
- Intermittent pneumatic compression



Condition: Morton's Toe

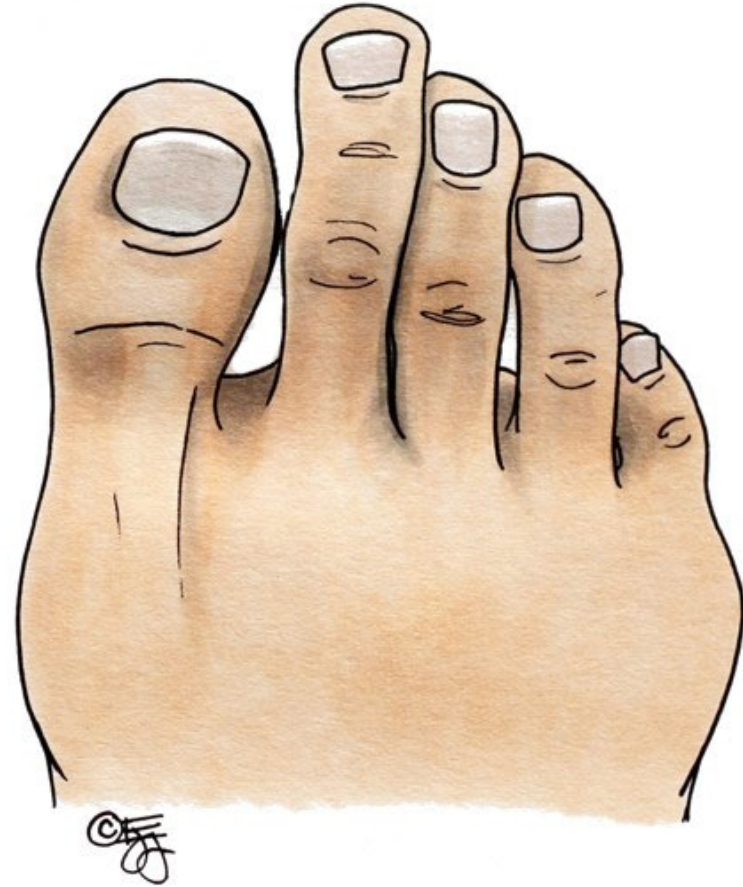
A condition in which the first ray is shorter than normal. Sometimes results in callouses under the 2nd and 3rd metatarsals

Cause

- Congenital
- Hereditary

Treatment

- Proper length shoes...
- *"Measure to the end of the longest toe!"*



Condition: Ingrown Nails

Often painful condition in which the nail grows so that it cuts into one or both sides of the nail bed.

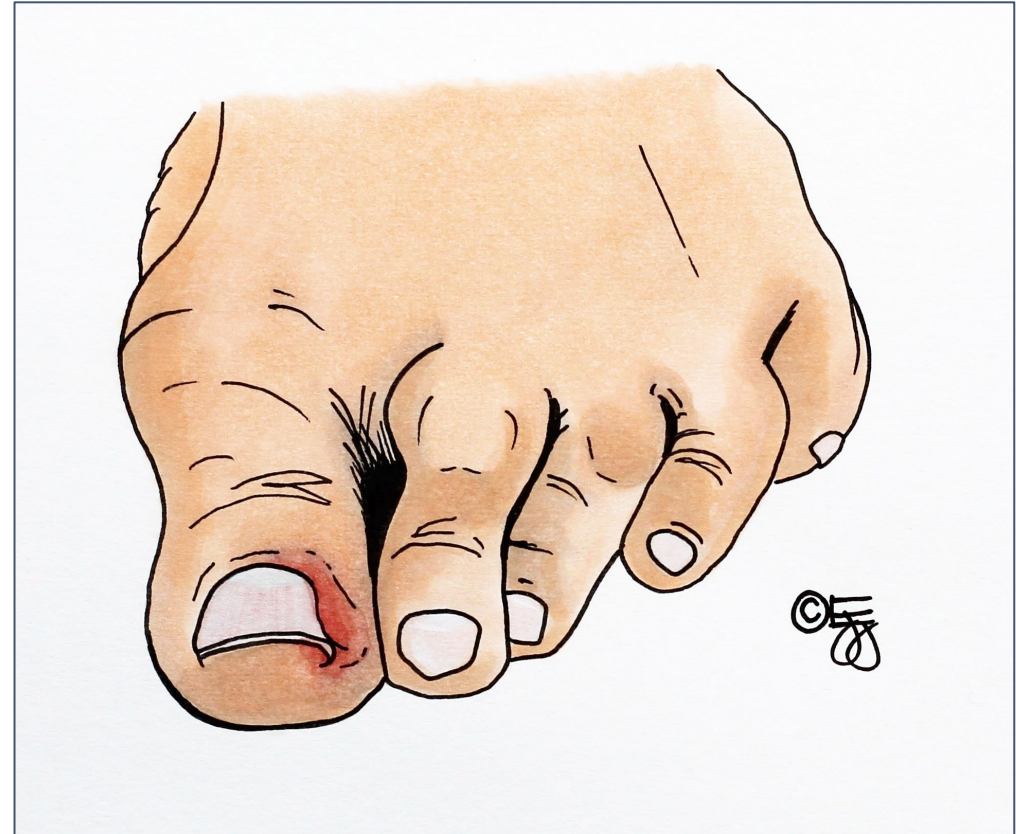
Possible infection if left untreated.

Causes

- Improperly fit shoes
- Poor nail care
- Trauma
- Hereditary

Treatments

- Soaking in water and salt
- Surgical treatment



Condition: Plantar Warts (Verruca Plantaris)

Small growths that usually appear on the heel or other weight bearing areas of the feet.

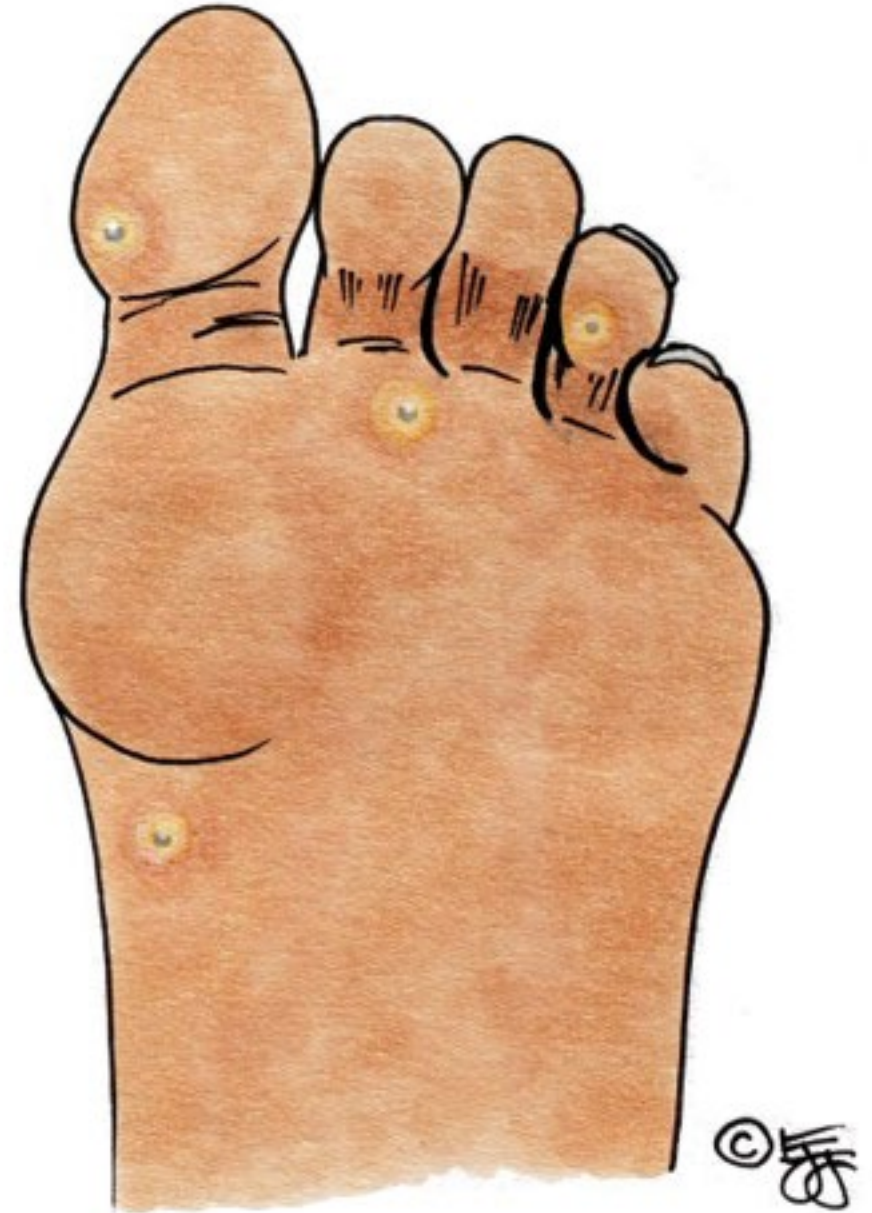
Caused by a virus (human papillomavirus-HPV)

Causes

- Tiny cuts and abrasions
- Walking barefoot on contaminated surfaces

Preventions/Treatments

- Changing socks/shoes regularly
- Footwear in communal shower
- Medications and surgery



Condition: Gangrene

A serious condition where a loss of blood supply causes body tissue to die.

Causes

- Diabetes
- PAD
- Atherosclerosis
- Smoking
- Trauma or frostbite

Treatments

- Debridement
- Surgery
- Maggot therapy
- Oxygen therapy



Condition: **Hallux Limitus/Rigidus**

Limitus: Limitation of motion at the first MTPJ that results in a functional impairment.

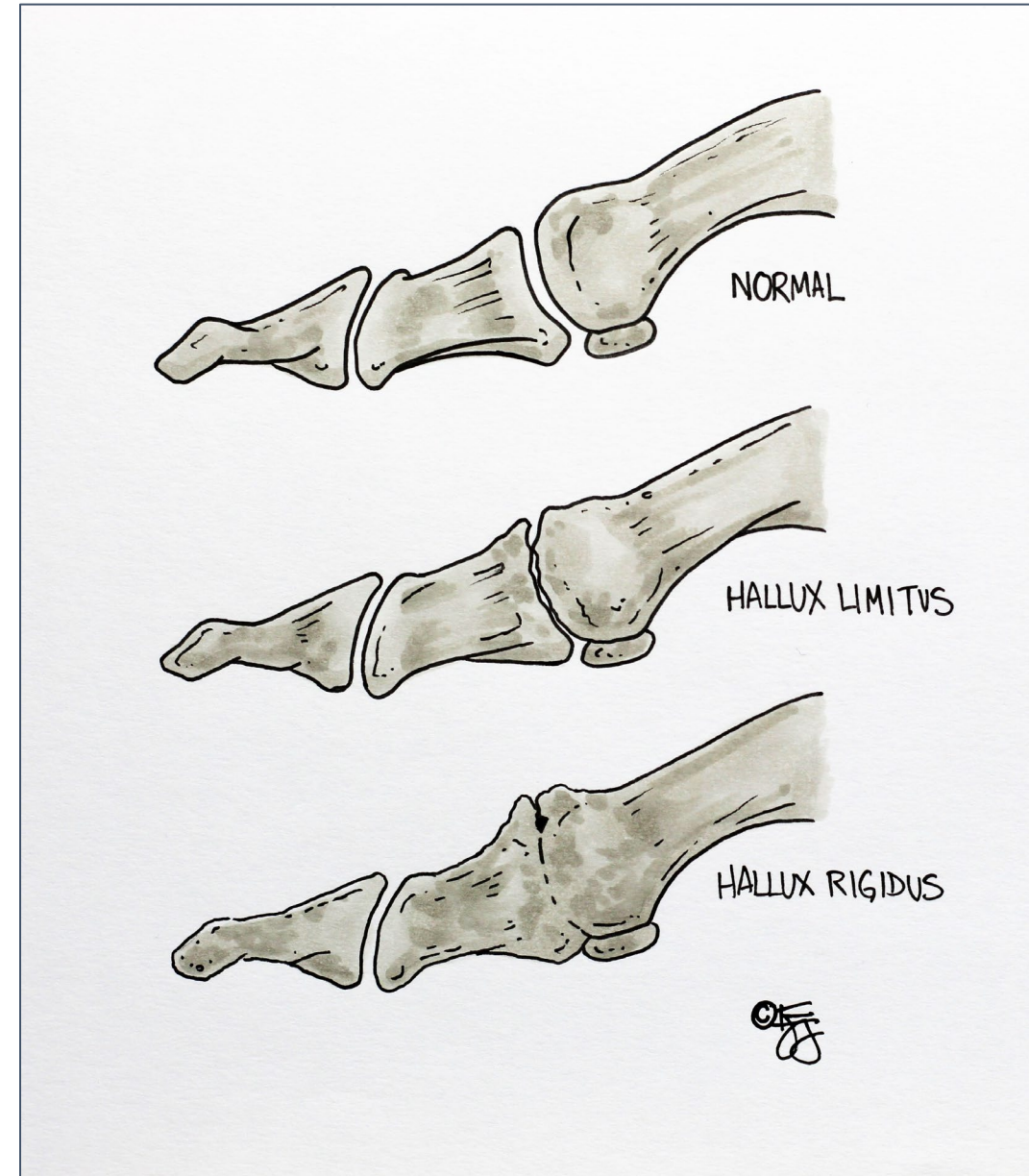
Rigidus: Total lack of motion of the first MTPJ. Pain and swelling sometimes results

Causes

- Previous trauma
- Wear and tear of first MTPJ

Treatments

- Foot orthotics
- Shoe modifications—rocker bottom
- Medications
- Physical therapy



Condition: Equinus

Limited dorsiflexion of the foot
compensated by toe-walking

Causes

- Tightness in the Achilles tendon
- Congenital
- Long term use of casts, crutches or high heels
- Diabetes

Treatment

- Calf stretching
- Night splints
- Heel lifts
- Arch supports or orthotics



Thank you.