

## Charcot Neuroarthropathy (Charcot's Foot)

### What is Charcot's Foot?

Charcot's Foot, also known as Charcot's neuroarthropathy is a serious and rare foot complication caused by Diabetes Mellitus.

Diabetic Peripheral Neuropathy, which involves a loss of sensation in the lower limbs and feet, can lead to the development of Charcot's foot where one can have a rocker bottom foot deformity in the long term.

### Some examples of Charcot's Foot include:



### How does Charcot's Foot happen?

Proposed mechanisms:

Theory #1:

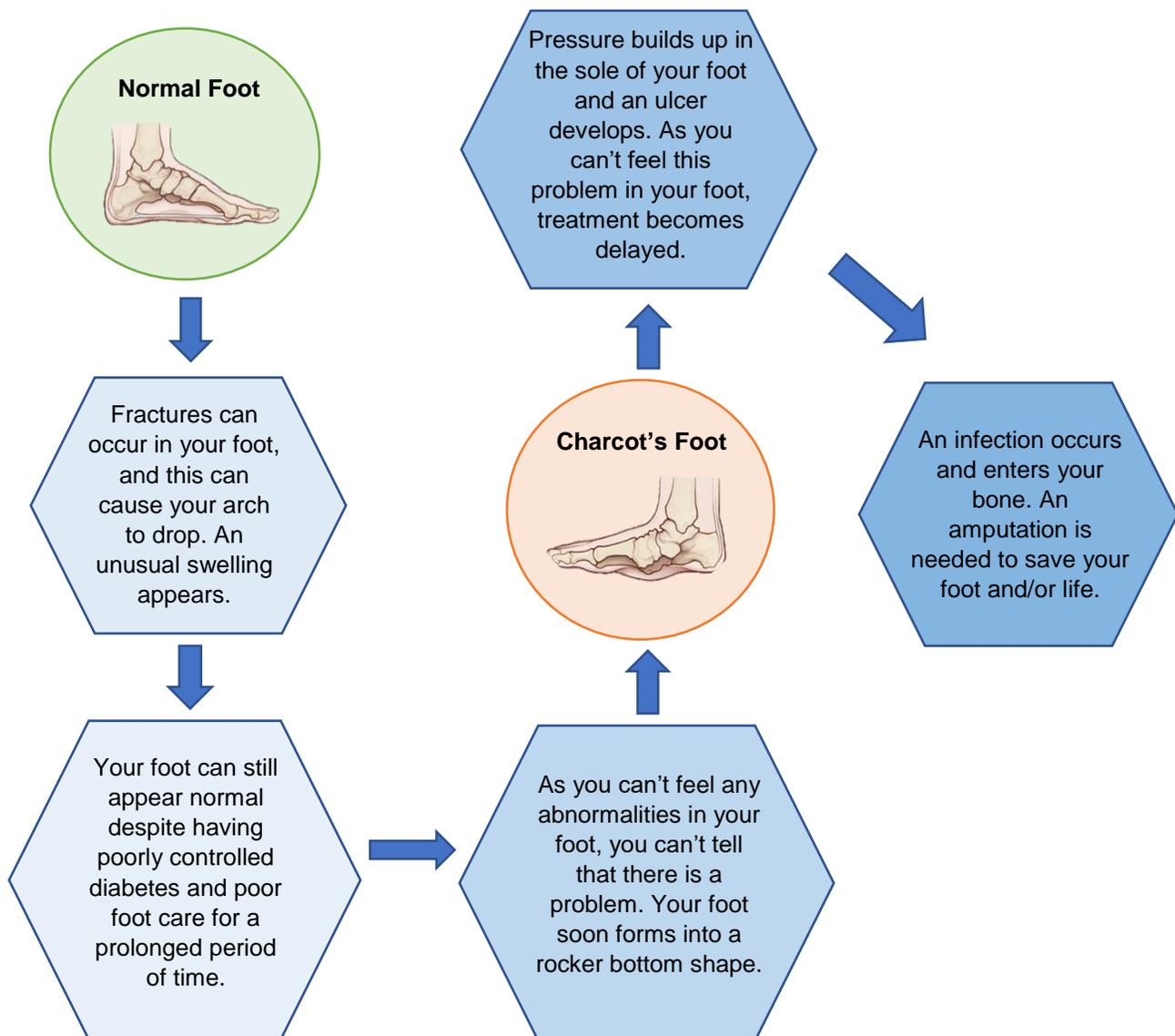
- Loss of pain sensation combined with repetitive trauma to the foot leading to bone and joint destruction.

Theory #2:

- Reduced bone density in the lower limbs and feet increases the risks of bony fractures, loose ligaments and eventually bone and joint destruction.



## Progression of a Charcot's Foot



### What should you do if you think you have Charcot's Foot?

1. Seek medical attention as soon as possible (e.g., go to the Emergency Department, inform your doctor or podiatrist about your foot condition).
2. Check your feet daily and reduce heavy weight-bearing activities.

## What comes next?

### Primary goals of treatment:

- Offload the foot to reduce areas of high pressure in the sole of the foot
- Slow down the progressive worsening of the condition and minimise severe foot deformity



### Treatment methods include:

1. X-rays to diagnose the Charcot's foot
2. Regular monitoring of the skin temperature difference between both the feet and ankles
3. Footwear and offloading
  - Wear a total contact cast or removable cast walker (e.g., Aircast boot) for 8 to 12 weeks
  - Use a Charcot Restraint Orthotic Walker (CROW) device
  - Use therapeutic footwear with accommodative total contact insoles as Charcot stabilises
4. Surgery if Charcot persists and long term creates potential ulcers at sole of foot
5. Take extra care of your feet for the rest of your life



## Signs and Symptoms of Charcot's Foot:

- Red, warm, swollen foot or ankle
- An abnormal pain sensation in the foot that usually has a reduced sensation
- Most of the time, only one foot is affected
- Rocker bottom foot deformity, collapsed arch
- Bounding pedal pulses



## Complications of Charcot's Foot:

1. Bony deformities can create pressure points in the sole of the foot that could result in diabetic foot ulcers.
2. Diabetic foot ulcers are difficult to heal due to various factors (e.g., poorly controlled diabetes, poor blood circulation to lower limbs, increased pressure on your feet, and the development of infection).
3. If an infected ulcer does not heal, it can be limb-threatening and result in an amputation.



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