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Avulsion Fracture of the 5th Metatarsal Base

How and What?

- This fracture occurs when the ankle is rolled to the inside (Figure 1) often after the person steps on uneven terrain or lands awkwardly from a height.
- The mechanism is similar to that which causes an ankle sprain
- Pain and swelling on the outside mid-portion of the foot are the main symptoms.
- The injury occurs when a strong ligament and/or tendon pulls off a fragment of the 5th metatarsal bone (the base of the bone that the little toe is attached to).

Symptoms

 5^{th} metatarsal avulsion fractures cause marked pain and swelling on the outside and midpart of the foot (Figure 2). Individuals will have great difficulty bearing weight on the injured extremity. If they can walk at all it will usually be with a marked limp.

X-Rays

X-rays of the foot will demonstrate a fracture at the base of the 5th metatarsal (Figure 3)

Recovery

Dancer's Fractures can be a frustrating injury as recovery can be prolonged. A typical recovery includes:

- 3-6 weeks of relative immobilization in a cast or boot. This may include a period of non-weight bearing for comfort, then walking as symptoms allow in the boot.
- After 4-8 weeks walking in a stiff-soled shoe is permitted.
- For most patients 75% of the recovery will occur in the first 10 weeks, but a full recovery often takes 6-12 months

Treatment

- Initial treatment includes R.I.C.E. (Rest, Ice, Compression, Elevation) and immobilization in a cast or cast boot
- Weigh-bearing is limited until adequate fracture healing has occurred
- Surgery is usually not required except if the fracture is significantly displaced, or the fracture fails to heal (non-union).



Figure 1: Mechanism of Injury



Figure 2: Main area of Pain



Figure 3: 5th Metatarsal Avulsion fracture as seen on X-Ray

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