Northwestern Medicine
Feinberg School of Medicine

Northwestern Memorial Hospital – Lavin Pavilion
259 E Erie St. Chicago, IL 60611
(312) 695-6800

NORTHWESTERN
DEPARTMENT OF ORTHOPAEDIC SURGERY

Dr. Milap S. Patel

Dr. Anish R. Kadakia

Jones Fracture Repair

Fractures of the fifth metatarsal, the smaller bone of the 5 bones located on the outside of foot can be divided in four different areas. Fractures that occur more towards the front of the foot are termed dancer's fractures and do not require surgical intervention. Fractures that occur closer to the back of the foot are divided into the three other zones. Acute Jones and stress related fractures occur in two of the 3 zones near the back of the 5th metatarsal. These fractures can occur from a twisting injury where the foot tilts inward. In some cases because of the shape of the foot combined with aggressive training that occurs with athletics, the repetitive stress on the bone results in fracture without any clear traumatic incident.

Acute fractures that result from a distinct trauma do not require surgical intervention to heal. Non-surgical treatment with a cast or boot with 6 weeks of no pressure, followed by a protected period of weightbearing in the boot for another 6 weeks to 3 months may allow the fracture to heal. In patients who are lower demand or have medical risk factors this approach may be preferred. There is a higher risk of re-fracture with high impact activity without surgery and therefore this may not ideal for younger or active individuals.

If surgery is considered, the most common method is to place a screw within the bone to provide mechanical stability to the fracture to improve the chance that it heals. A small incision is required to perform the procedure and weightbearing is allowed in a boot approximately 2 weeks from surgery. A transition to a gym shoe is progressed at 6 weeks, with return to higher energy impact activity allowed after 3 months if there is clinical evidence of bony healing combined with radiographic confirmation on xray and/or CT scan. Healing of this fracture is not predictable and in some cases up to 6 months is required for healing. Despite the use of a screw to stabilize the fracture, it may not heal or may refracture after activity resumes. In some cases, rest and immobilization will allow the fracture to heal again if the hardware is intact. In cases where the bone does heal or the screw breaks – revision surgery may be needed with a new screw or a plate and screws (requires a larger incision). Patients who have a high arched foot or a foot that is curved in (metatarsus adductus) have a higher risk of nonunion and refracture despite surgical treatment. Orthotics to help protect the foot and in some cases, the foot shape may need to corrected to allow the bone to heal.

Stress fractures of the 5th metatarsal, what may be termed a "stress Jones" requires surgery given high failure rate of non-surgical intervention for this condition. Surgery is similar to that described above, however, biologic augmentation is considered with concentrated bone marrow (mesenchymal signaling cells – "stem cells") to improve the rate of healing. In some patients, the use of concentrated bone marrow may be considered for acute fractures, however, this may not be approved by insurance and this must be taken into consideration when discussing this biologic augment. The current scientific evidence does not demonstrate that this is required for healing of acute fractures.