

Jones Fracture

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ABSTRACT

CLINICAL PRESENTATION AND EXAM: The Jones Fracture is mostly seen as a stress fracture caused by continuous trauma or impact to the lateral portion of the foot. The fracture can also be caused by an acute forceful trauma to the same area. The Jones Fracture is most commonly seen in athletes or chronic runners. Typically, athletes and runners experience the fracture in the non-dominant leg. **ANATOMY AND PATHOLOGY:** The Jones fracture is a fracture in the fifth metatarsal occurring at the metaphyseal-diaphyseal junction. The lateral portion of the foot is affected. Pain, swelling, discoloration, and difficulty in regular gait are common symptoms of this fracture. Inflammation can cause limited range of motion of the ankle and excess pain in the distal ankle, in turn radiating pain up the lower leg. **DIAGNOSTIC TESTING & CONSIDERATIONS:** A patients' daily activities need to be taken into consideration when diagnosing a Jones Fracture. The diagnosis involves a physical exam. Initially there is a determination of how the injury happened and when the pain started. This is followed by a palpation examination of the foot in order to assess the location of the pain. Additionally, an X-Ray or other imaging scans can be used to verify the fracture. **TREATMENT & RETURN TO ACTIVITY:** The treatment plan will depend on the severity of the fracture. The most common surgical fixation technique utilizes plates and screws to fix the fracture. The screw fixation can have a titanium screw as well as a bone graft, whereas the plate fixation uses both a screw and a titanium plate to help stabilize the fracture. The screw fixation has shown to have a 1-2-week quicker return to participation than the plate fixation. A cast is usually placed on the patients' foot following surgery. Non-surgical interventions include rest and ankle exercises that aim to alleviate pain and loss of performance. Individuals choosing a non-surgical treatment tend to take a longer time to return to previous participation levels. During the healing process there may be complications with the reunion of the fracture. These complications can include nonunion, delayed union, and refracture, all of which can occur with surgical as well as nonsurgical techniques. Nonunion happens when the fracture does not heal, and the screw or plate has not held them together. Delayed union is when the fracture takes longer than usual to heal. It is the most common due to the athlete participating in their sport before healing has happened. A refracture can occur when previous activity levels are initiated too soon, exposure to high impact on the area, or not having complete union of the fracture. Physical therapy can take 6-8 weeks depending on the healing progression. Due to the distal proximity of the fracture the adequacy of blood flow may affect the healing progression. Additionally, there may be limited range of motion due to swelling, pain and scar tissue build up. Ankle exercises including range of motion work, banded resistance, and stability work are also used to strength the affected ankle. Ultimately the goal of therapy is healing of the fracture along with developing adequate range of motion, proper gait, and reducing pain. Suggestions to prevent an initial or a reoccurrence of the injury include wearing proper footwear, avoid running on uneven surfaces with unstable ankles, and use of proper running technique.