

TOE & METATARSAL FRACTURES

The structure of the foot is complex, consisting of bones, muscles, tendons, and other soft tissues. Of the 28 bones in the foot, 19 are toe bones (phalanges) and metatarsal bones (the long bones in the midfoot). Fractures of the toe and metatarsal bones are common and require evaluation by a specialist.

A fracture is a break in the bone. Fractures can be divided into two categories: traumatic fractures and stress fractures. Traumatic fractures (also called acute fractures) are caused by a direct blow or impact, such as seriously stubbing your toe. Traumatic fractures can be displaced or nondisplaced. If the fracture is displaced, the bone is broken in such a way that it has changed in position (malpositioned).

Stress fractures are tiny hairline breaks usually caused by repetitive stress. Stress fractures often afflict athletes who, for example, too rapidly increase their running mileage. They can also be caused by an abnormal foot structure, deformities or osteoporosis. Improper footwear may also lead to stress fractures. Stress fractures should not be ignored. They require proper medical attention to heal correctly.

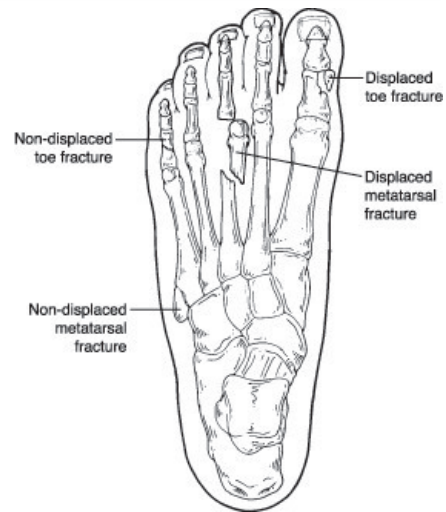
Treatment of Toe Fractures

Fractures of the toe bones are almost always traumatic fractures. Treatment for traumatic fractures depends on the break itself and may include these options:

- Rest. Sometimes rest is all that is needed to treat a traumatic fracture of the toe.
- Splinting. The toe may be fitted with a splint to keep it in a fixed position.
- Rigid or stiff-soled shoe. Wearing a stiff-soled shoe protects the toe and helps keep it properly positioned. Use of a postoperative shoe or bootwalker is also helpful.
- Buddy taping the fractured toe to another toe is sometimes appropriate, but in other cases, it may be harmful.
- Surgery. If the break is badly displaced or if the joint is affected, surgery may be necessary. Surgery often involves the use of fixation devices, such as pins.

Treatment of Metatarsal Fractures

Breaks in the metatarsal bones may be either stress or traumatic fractures. Certain kinds of fractures of the metatarsal bones present unique challenges. For example, sometimes a fracture of the first metatarsal bone (behind the big toe) can lead to arthritis. Since the big toe is used so frequently and bears more weight than other toes, arthritis in that area can make it painful to walk, bend, or even stand. Another type of break, called a Jones fracture, occurs at the



base of the fifth metatarsal bone (behind the little toe). It is often misdiagnosed as an ankle sprain, and misdiagnosis can have serious consequences since sprains and fractures require different treatments. Treatment of metatarsal fractures depends on the type and extent of the fracture and may include:

- Rest. Sometimes rest is the only treatment needed to promote healing of a stress or traumatic fracture of a metatarsal bone.
- Avoid the offending activity. Because stress fractures result from repetitive stress, it is important to avoid the activity that led to the fracture. Crutches or a wheelchair are sometimes required to offload weight from the foot to give it time to heal.
- Immobilization, casting or rigid shoe. A stiff-soled shoe or other form of immobilization may be used to protect the fractured bone while it is healing. Use of a postoperative shoe or bootwalker is also helpful.
- Surgery. Some traumatic fractures of the metatarsal bones require surgery, especially if the break is badly displaced.
- Follow-up care. Your foot and ankle surgeon will provide instructions for care following surgical or nonsurgical treatment. Physical therapy, exercises and rehabilitation may be included in a schedule for return to normal activities.

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