

Tibial Shaft Fracture

The tibia is the most commonly fractured long bone throughout the entire body. The long bones include those of the humerus, femur, fibula and the tibia. Tibial fractures often occur down the length of the bone, just below the knee and above the ankle. Since it generally takes a significant amount of force to break the long bones, other injuries often occur at the same time.

Tibial Shaft Fracture Anatomy

The tibia is one of three long bones in the leg, the others being the fibula (another lower leg bone that sits next to the tibia), and the femur (the upper leg bone). The main weight bearing bones are the tibia and the femur.

Sometimes the tibia fractures alone, and the most common cause is significant trauma to the leg, usually during a bad tackle in sport. However, quite often both the tibia and fibular fracture together (see article of Tibia and Fibula fracture for more information). Experts sometimes believe that breaking just the tibia can be problematic for non-union. This is due to the fibula acting as a strut and preventing joining of the tibia.

How to Treat a Tibial Shaft Fracture:

1. Splint

Most of these injuries end up causing some degree of swelling for the first few weeks following the injury. Initially, a splint is used to provide you with support and comfort. Unlike traditional full casts, splints can easily be loosened or tightened, so swelling can occur without fear of additional harm. Once the swelling has gone down, the doctor will look into other treatment options.

2. Functional Brace and Cast

One of the proven methods without having to undergo surgery is immobilization of the fracture using a cast for initial healing. After the leg has been in the cast for weeks, you can have the cast replaced with a functional brace composed of fasteners and plastic. The brace will help provide you with protection and promote the healing process. You can easily take the brace off for hygiene issues as well as going through physical therapy.

Often surgery is required if the fracture is complicated.

Tips:

- Some fractures can heal in as little as four months, while others can take more than six months to heal completely. Be patient and allow your bone the time it needs to heal correctly.
- In the early recovery periods, leg movement is often encouraged.
- While wearing the splint or cast, you will end up losing muscle strength in the region. Exercise in the healing process after the cast is gone is important.
- As you begin walking, use a walker or crutches to build strength in the injured site.
- Make sure to follow the directions provided by your medical team and physiotherapists to ensure complete recovery and minimal risk of injuring the site further.