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Do You Make These Mistakes in Fracture Treatment?

What is a Fracture?

A fracture is a crack or break in a bone. It may be complete (through and through) or incomplete (crack), or open (the bone protrudes through the skin), or closed (the bone does not protrude through the skin). In an open fracture, the chance of infection is greater, and antibiotics are often necessary. In almost any fracture, the relationship of the fragments to each other will determine the type of treatment. If the fracture fragments are separated by more than a few millimeters, the fracture will not heal. In this case, "closed reduction" (resetting the fracture by recreating the way the fracture happened to get the bones apart, and then realigning them) may be necessary. If there is something preventing the fragment from lining up, "open reduction with fixation" (surgery with the insertion of a pin, screw, or holding device) may be necessary. The fixation may be under the skin or protruding from the skin. In both cases, after the fracture is reduced, a cast is applied. The purpose of a cast is to keep the surrounding muscles from contracting and separating the fracture fragments. For most fractures in the foot, the cast extends below the knee because there are several muscles that originate in the leg and insert into the foot which must be controlled. Also, if the cast goes above the knee, walking is more difficult. Because the first step in healing of a fracture is blood vessels growing across the fracture site, the movement of the bony fragments will tear the blood vessels.

In a metatarsal fracture, the site of the fracture determines how the bone will heal. In general, fractures in the midshaft will heal slower than fractures at the ends of the bone because there is a better blood supply at the ends. Metatarsal fractures are most often caused by direct injury like dropping something on the top of the foot. However, they may be caused by repetitive stress such as running and walking on hard surfaces such as concrete. In this case, the bone may have a crack or greenstick fracture.

How Long Does a Fracture Take to Heal?

The time a fracture takes to heal varies with age. In very young children, a fracture heals in two weeks, while in adults, it takes about eight weeks. This is because young children have more "red" (blood producing marrow) in the center of their bones compared to adults. Also, some of a child's bones are not completely solid.

What Do I Do if I Think I Have a Fracture?

1. First, remember the word R.I.C.E. which stands for Rest, Ice, Compression, and Elevation. These things aid to prevent swelling, and to allow the fracture fragments to be realigned more easily.

2. If the pain does not improve, please call the office to have your foot x-rayed as soon as possible. The x-ray will determine how I treat you. Remember, the fracture cannot heal if the fragments are shifting all the time.

How Are Metatarsal Fractures Treated?

1. In the case of an incomplete crack in the bone, a post-op shoe (an open shoe with a rigid bottom) and limitation of running and jumping are all that is necessary.

2. If the fracture is through and through and not displaced, a cast is usually necessary. A trouble spot is at the base of the fifth metatarsal (outside of the foot). This is a notoriously difficult fracture to heal because the peroneus longus tendon attaches to it. If the fragments are separated, the fragment of the bone must be lined up. If the fracture is displaced, it is easier to align the fragments without surgery if it is done soon after the injury before swelling and limitation of motion have a chance to set in. Remember, with an injury such as a fracture, there may be injury to muscles and ligaments as well, so immediate treatment is important.