Fracture Principles For Patients

By Thomas J. Haverbush, M.D.
Orthopaedic Surgeon

Transforming patient information into patient understanding.

Many patients mistakenly associate my specialty of Orthopaedic Surgery only with fractures. Nothing could be further from the truth. Orthopaedic Surgery encompasses almost all of the musculoskeletal system areas of the body. Wow, that is a lot.

That said, I would like to enter the world of Fractures with you and hopefully cover some aspects you didn’t know.

A fracture (break) is simply a disruption in the continuity of a bone. Fracture or break, the terms are interchangeable.

**Stress Fracture**

Some fractures occur almost on a microscopic level and are called stress fractures. They may not even show up on regular x-rays. They are usually stable and activity restriction and light immobilization may be all that is needed. This is an over simplification, but I only wanted to explain what a stress fracture is and not go into the treatment of stress fractures in general.

**Torus Fracture**

Young bone can actually bend producing a buckling of one side of the bone, but no change on the other side. These fractures require only short term immobilization for comfort. Usually a cast, but sometimes a splint.

**Greenstick Fracture**

A young bone fracture that breaks on one side of the bone and bends on the other is termed greenstick. The fracture may be quite deformed and require reduction or “setting”, whereas a torus fracture never requires setting.

**Mature Bone Fracture**

In these injuries the bone is completely interrupted. In this fracture the bone may or may not be displaced or out of position.

*Undisplaced*

Treatment of undisplaced fractures usually consists of immobilization until full healing is seen on x-ray. Usually surgery is not required, but it depends on the fracture.

*Displaced*

Most displaced (separated) fractures are unstable and often require surgery. But in some cases a displaced fracture can be reduced and may be maintained in proper position with a splint or a cast.

Many displaced fractures do require surgery to reduce or “set” them and then metal fixation is added to hold the fracture in place.

**Symptoms**
There are many classic symptoms you need to know.

- Swelling in the injured area
- Tenderness
- Pain
- Deformity or angulation
- Undisplaced fractures may have only tenderness and swelling
- Stress fractures have mild swelling, tenderness and pain to bear weight
- Discoloration may be present

X-rays

X-rays usually indicate the presence of an acute fracture. But there are exceptions. Sometimes the fracture is not seen by the physician in the ER or Clinic. The part is splinted (hopefully) and in a day or so the facility calls the patient saying “the radiologist has diagnosed a fracture”. Also some fractures will not show up on x-ray for 1 – 2 weeks until the bone absorbs at the fracture site making the fracture now visible.

It is always wise to splint or immobilize a suspected fracture to treat symptoms until x-rays can confirm the presence (or absence) of a fracture.

Types of Fractures (Classification)

- Fractures into the joint (intra-articular)
- Displaced (separated)
- Nondisplaced
- Angulated
- Many fragments (comminuted)
- Compressed
- Open (if a fracture is exposed to air through a break in the skin)

This is a good place to finish part one of our mini course in fractures. Please return next week at this same time for part two. See you then.

*My patients put their trust in me and what I do improves the quality of their lives.*

**Office Website and Gratiot County Herald Archive**

Thank you loyal readers for joining us each week. Do yourself a favor and log onto [www.orthopodsurgeon.com](http://www.orthopodsurgeon.com).

It contains a world of musculoskeletal information you and your family and friends can use! Website, Your Orthopaedic Connection, Archive of all previous GCH articles.

Please check it out. Be well.

Good health, good life, all the best to you.

315 Warwick Drive
Alma, Michigan 48801
Phone 989-463-6092 for an appointment

Dr. Haverbush