



Musculoskeletal System - Disorders

Boxer's Fracture

What is It?

A Boxer's Fracture is any fracture of a metacarpal bone (these are the long bones in the hand that connect to the phalanges [visible fingers]). The most common boxer's fracture is the 5th metacarpal (little finger)

The metacarpal is easily identified when making a closed fist. The distal (far) end is known as the knuckle of the fist.

Ironically enough a boxer's fracture usually happens with amateurs due to it occurring from poor punching form (in the case of a punch).

Causes

A boxer's fracture arises from an acute injury such as punching a wall or skull. Rarely, other forms of trauma to the hand can cause this.

Symptoms

Localized pain, tenderness, and swelling are the most common complaints.

Malrotation should be assessed. With fingers flexed they should line up nicely and point towards the wrist. With a boxer's fracture the finger can become malrotated.



X-Ray

Most likely due to the mechanism of injury an x-ray will be taken. When looking at the x-ray a boxer's fracture can show as a change in angulation at the head of the metacarpal beyond the normal 10-15 degrees.



Note the difference in angulation of the head-to-neck angle of the fifth metacarpal when compared to the other metacarpals. This indicates a boxer's fracture.

Treatment

Depending on the severity of the fracture it may need to be reduced (reset in alignment) in the emergency department or in the operating room. An orthopedic specialist might be consulted for follow-up.

In the emergency department a gutter splint will likely be applied. Pictured to the right is an ulnar gutter cast from a specialist.



Outlook

Typically this fracture heals in 6-8 weeks with conservative treatment including a cast, RICE, and anti-inflammatory medication like ibuprofen (Advil).

In medical documentation a fracture is often Abbreviated as '#'. So for example a doctor might write the diagnosis as "Boxer's #" meaning "Boxer's Fracture"