



Boxer's Fracture • Knuckle Fracture of the Pinky

Introduction

A Boxer's fracture occurs when the bone at the knuckle of the little finger breaks. It can result from a forceful injury during fist fighting or hitting a solid object, such as a wall. A Boxer's fracture causes swelling, pain, and stiffness. Treatment involves realigning the broken bone, when necessary, and providing stabilization while it heals.

Anatomy

The "knuckle" of the fifth finger (small finger or "pinky") is comprised of the head of the metacarpal bone from the hand, and the base of the finger, called the proximal phalanx. The main function of your little finger is to contribute to a tight strong grip.

Causes

A Boxer's fracture occurs when the neck of the metacarpal bone in the little finger breaks. It is commonly caused by punching an immovable object, such as a wall, or someone's jaw or head during a fist fight. The impact can cause the bone to break in several different patterns and pieces.

Symptoms

A Boxer's fracture can cause your little finger and knuckle area to feel painful. Your pain may increase with movement. Your hand may swell and bruise. The normal contour of the "knuckle" may deform or seem to disappear. This occurs when the fracture bends the bone, and the metacarpal head is no longer prominent. A Boxer's fracture can make your little finger feel stiff. It may not move correctly. Your little finger may overlap your ring finger when you bend it because of malrotation. Your grip may be weaker and less coordinated than before.

Diagnosis

Your examiner can diagnose a Boxer's fracture by examining your hand and taking x-rays of your hand. X-rays can show the type of fracture and any dislocation. In rare cases, a computed tomography (CT) scan may be used to provide a more detailed image.

Treatment

Many Boxer's fractures can be treated by immobilizing the joint to promote healing. Immobilization can be achieved with a variety of splints, a cast, or taping techniques. "Buddy-taping" involves taping the little finger to the ring finger.

Surgery

Surgery is recommended for Boxer's fractures if large degrees of angulation or displacement occur, or if the joint surface is misaligned. Displacement and angulation means that a piece or pieces of the metacarpal bone that has broken have moved out of position. An open reduction and internal fixation (ORIF) surgery allows surgical hardware, such as wires and screws, to be placed in the bone to align the fracture and allow it to heal in the correct position.

Recovery

Rehabilitation with a hand therapist may follow immobilization and surgery. It typically takes four to six weeks



for a hand fracture to heal and many additional weeks for it to regain motion and strength. You should avoid heavy lifting, gripping, and contact sports for about three months. People that have surgery generally require longer recovery periods than people that do not have surgery. Overall, Boxer's fractures that are appropriately treated have very good results.

Prevention

Boxer's fractures can be avoided by avoiding the situations that cause them. You should avoid bare fist fighting. Gloves can protect your hands while boxing. You should tell your doctor if you hit solid objects, such as walls, when you are angry or frustrated. Your doctor will be happy to refer you to resources that can help you learn more positive coping skills.

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